Rail Communications

Wireless connectivity

Edition 05/2026

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HUBER+SUHNER

Connecting – today and beyond

HUBER+SUHNER is a global company with headquarters in Switzerland which develops and manufactures components and system solutions for electrical and optical connectivity. With cables, connectors and systems – developed from the three core technologies of radio frequency, fiber optics and low frequency – the company serves customers in the communication, transportation and industrial sectors.

The products deliver high performance, quality, reliability and long service life – even under the toughest of conditions. The company's global production network, combined with group companies and agencies, ensures that HUBER+SUHNER maintains a close relationship with its customers in over 80 countries.

HUBER+SUHNER has been developing and manufacturing specialised antenna products for over 25 years. The SENCITY brand of antennas reflects quality, performance and our unending pursuit of innovation. Our expertise extends to wireless applications in the railway, automotive, communication, industrial and defense industries.

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Railway rooftop antennas

HUBER+SUHNER offers the world's most complete portfolio of antennas for train rooftops, covering all train-to-ground applications including cellular, Wi-Fi, GSM-R and PTC services, including support as well as multiband GNSS.

SENCITY Rail low profile

p. 26–32

Omni-directional broadband MIMO and SISO rooftop antennas for all types of trains. Ultra low profile design with a maximum height of only 40 mm. Designed to meet the special requirements of railway applications including high current and high voltage protection.

SENCITY Rail

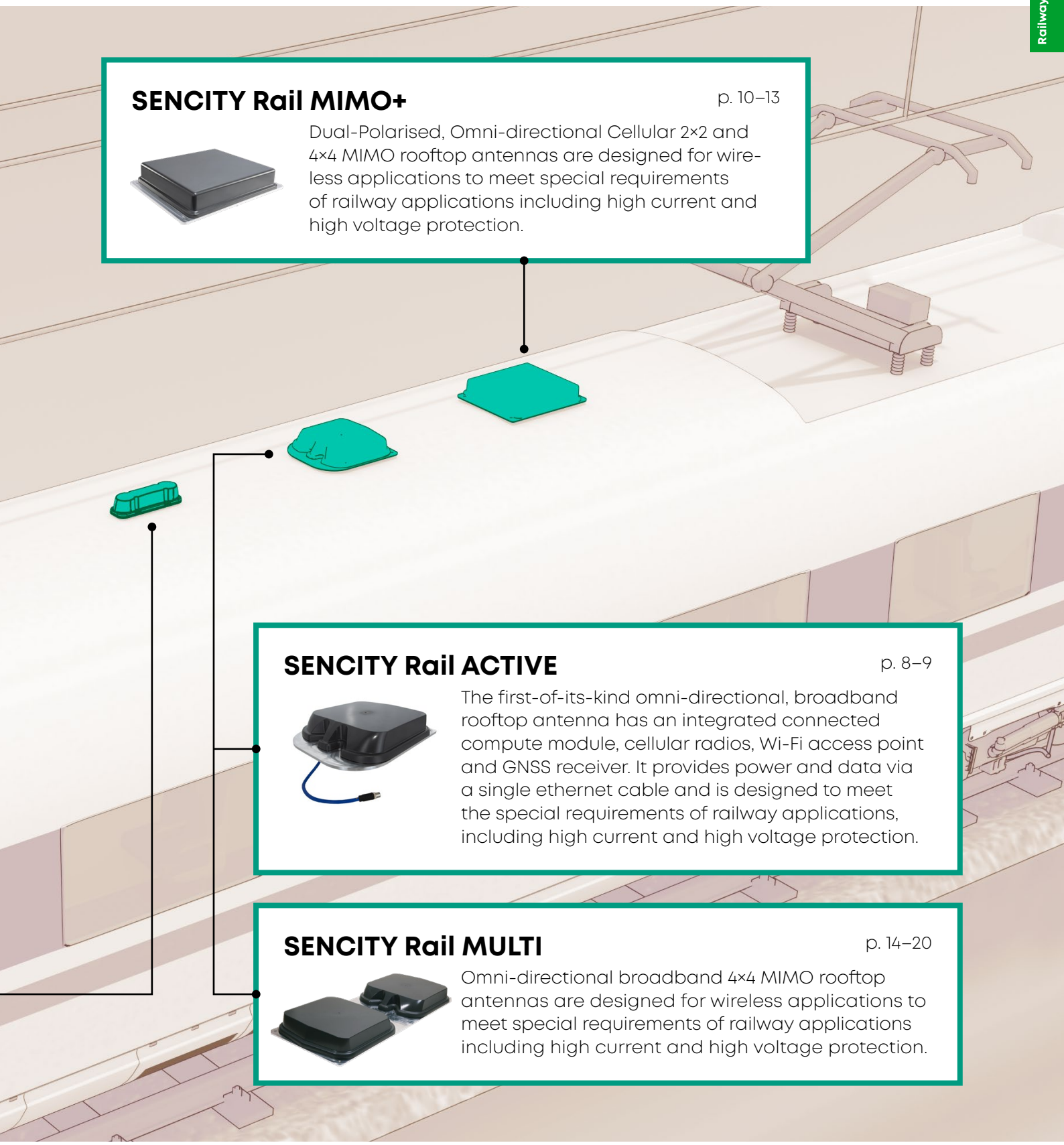
p. 33–64

Omni-directional railway roof-top antenna family for all types of trains. Designed to meet the special requirements of railway applications including high current and high voltage protection.

SENCITY Rail MIMO

p. 21–25

Omni-directional MIMO broadband railway rooftop antennas for all types of trains. Designed to meet the special requirements of railway applications including high current and high voltage protection.



SENCITY Rail MIMO+

p. 10–13

Dual-Polarised, Omni-directional Cellular 2×2 and 4×4 MIMO rooftop antennas are designed for wireless applications to meet special requirements of railway applications including high current and high voltage protection.

SENCITY Rail ACTIVE

p. 8–9

The first-of-its-kind omni-directional, broadband rooftop antenna has an integrated connected compute module, cellular radios, Wi-Fi access point and GNSS receiver. It provides power and data via a single ethernet cable and is designed to meet the special requirements of railway applications, including high current and high voltage protection.

SENCITY Rail MULTI

p. 14–20

Omni-directional broadband 4×4 MIMO rooftop antennas are designed for wireless applications to meet special requirements of railway applications including high current and high voltage protection.

Railway

SENCITY Rail ACTIVE Rooftop

Product name	**SENCITY Rail ACTIVE Rooftop antenna 5G sub-6**
Product ID.	**1499.00.0002**
Description	Omnidirectional railway rooftop antenna with integrated connected compute module, cellular radios, Wi-Fi access point & GNSS receiver. Can be used in deployment of high capacity Rail communication train-to-ground systems
	· Railway rooftop omni-directional antenna for Cellular 5G, Wi-Fi 5 and GNSS train-to-ground services. · Embedded GNSS antenna with integrated low-noise amplifier · Includes integrated connected compute board, Cellular and Wi-Fi radio modules. · Connection provided via a single PoE input LAN M12 X-code female 300mm pigtail. · Supports 4×4 MIMO Cellular 5G sub-6 with 4G/3G fallback and 2×2 MU-MIMO Wi-Fi 5 Dual-band 2.4 / 5 GHz · GNSS receiver supports GPS L1, Galileo E1, BeiDou B1, GLONASS G1 constellations
Item no.	85175540

Communication Services		
Supported Bands	5G	n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79 (617 – 5000 MHz)
	4×4 MIMO	1, 2, 3, 4, 7, 25, 30, 32, 41, 42, 43, 46, 48, 66 (1710 – 3700 MHz)
	LTE	1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 28, 29DL, 30, 32, 34, 38, 39, 40, 41, 42, 43, 46(LAA), 48(CRS), 66, 71*
	Wi-Fi	802.11ac Wave 2, 2×2 MU-MIMO (5150 – 5850 MHz) 802.11n Wave 1 (2400 – 2500 MHz)
	GNSS	GPS/QZSS L1 C/A, GLONASS L10F, BeiDou B1I, Galileo E1B/C (1559 – 1610 MHz)
Note	Supported bands also valid for installations on non-metallic surfaces (no specific ground plane requirements). For band 71 an additional ground plane of at least 500 × 500mm is recommended. Integrated Cellular Module: TELIT© 5G Module FN980	

Electrical data	
Processor	2 × ARM Cortex-A72 1.6GHz, 4 × ARM Cortex-A53 1.26GHz, 2 × ARM Cortex-M4F 266MHz
Memory	4GB RAM / 16GB eMMc Storage
Operating System	Embedded Linux Debian 10, Linux 5.4 kernel operating system
Ethernet	1 × LAN M12 X-code female 300mm pigtail, PoE+ Class 4 (802.3at)

Mechanical data	
Dimensions (mm) (height × width × depth)	84 × 368 × 425 (Height × Width × Depth)
Weight (kg)	7.5 (without packaging)

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6, IPX8, IPX9, IP69K
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail ACTIVE Rooftop

Product name	**SENCITY Rail ACTIVE Rooftop antenna 5G sub-6**
Product ID.	**1499.00.0005**
Description	Omnidirectional railway rooftop antenna with integrated connected compute module, cellular radios, Wi-Fi access point & GNSS receiver. Can be used in deployment of high capacity Rail communication train-to-ground systems
	· Railway rooftop omni-directional antenna for Cellular 5G, Wi-Fi 5 and GNSS train-to-ground services. · Embedded GNSS antenna with integrated low-noise amplifier · Includes integrated connected compute board, Cellular and Wi-Fi radio modules. · Connection provided via a single PoE input LAN M12 X-code female 300mm pigtail. · Supports 4×4 MIMO Cellular 5G sub-6 with 4G/3G fallback and 2×2 MU-MIMO Wi-Fi 5 Dual-band 2.4 / 5 GHz · GNSS receiver supports GPS L1, Galileo E1, BeiDou B1, GLONASS G1 constellations
Item no.	85160687

Communication Services		
Supported Bands	5G	n1, n2, n3, n5, n7, n8, n12, n20, n25, n28, n38, n40, n41, n48, n66, n71, n77, n78, n79 (617 – 5000 MHz)
	LTE	1, 2, 3, 4, 5, 7, 8, 12, 13, 14, 17, 18, 19, 20, 25, 26, 28, 29, 30, 32, 34, 38, 39, 40, 41, 42, 43, 46(LAA), 48, 66, 71*
	HSPA+/ WCDMA	1, 2, 3, 4, 5, 6, 8, 9, 19
	Wi-Fi	802.11ac Wave 2, 2×2 MU-MIMO (5150 – 5850 MHz) 802.11n Wave 1 (2400 – 2500 MHz)
	GNSS	GPS/QZSS L1 C/A, GLONASS L10F, BeiDou B1I, Galileo E1B/C (1559 – 1610 MHz)
Note	Supported bands also valid for installations on non-metallic surfaces (no specific ground plane requirements). For band 71 an additional ground plane of at least 500 × 500mm is recommended. Integrated Radio Module: Sierra Wireless© EM9191	

Electrical data	
Processor	2 × ARM Cortex-A72 1.6GHz, 4 × ARM Cortex-A53 1.26GHz, 2 × ARM Cortex-M4F 266MHz
Memory	4GB RAM / 16GB eMMc Storage
Operating System	Embedded Linux Debian 10, Linux 5.4 kernel operating system
Ethernet	1 × LAN M12 X-code female 300mm pigtail, PoE+ Class 4 (802.3at)

Mechanical data	
Dimensions (mm) (height × width × depth)	84 × 368 × 425 (Height × Width × Depth)
Weight (kg)	7.5 (without packaging)

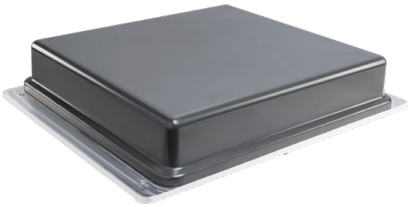
Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9, IP69K
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail MIMO+



Product name	**SENCITY Rail MIMO+ 2×2 antenna**
Product ID.	**1399.17.0301**
Description	Dual-Polarised Omni-directional 2×2 railway rooftop antenna, developed to be used as the onboard antenna in deployment of high capacity Rail communication train-to-ground systems.
	· Enables 2×2 MIMO with true polarisation diversity for high data throughput · Average combined condition number on the supported cellular bands of <10dB · Supporting 2G/3G/4G/5G bands between 694 – 4200 MHz · Rugged design, meets EN 50155 railway standard and Fire retardant according to EN 45545-2 and NFPA130 · High Voltage and High Current protection for use under catenary lines
Item no.	85150807

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Vertical Polarisation	Vertical Polarisation	Vertical Polarisation
Frequency (MHz)	617 – 960	1425 – 2690	3300 – 4200
VSWR	2.0	2.0	1.9
Gain (dBi)	7	8	9
Port Isolation (dB)	35	29	38
	Band 4	**Band 5**	**Band 6**
Band name	Horizontal Polarisation	Horizontal Polarisation	Horizontal Polarisation
Frequency (MHz)	694 – 960	1425 – 2690	3300 – 4200
VSWR	1.9	2.0	2.1
Gain (dBi)	7	9	9
Port Isolation (dB)	35	29	38

Electrical data	
Impedance	50 Ohms
Number of ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (Cellular 1) and Horizontal (Cellular 2)

Mechanical data	
Dimensions (height × width × depth)	90 × 489 × 392 mm
Weight	7.34 kg

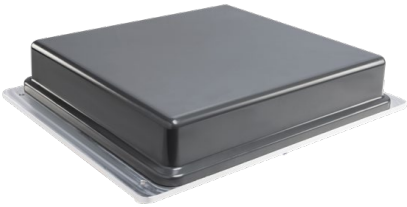
Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail MIMO+



Product name	**SENCITY Rail MIMO+ 2×2 antenna with Dualband GNSS/LNA**
Product ID.	**1399.99.0301**
Description	Dual-Polarised Omni-directional 2×2 railway rooftop antenna, developed to be used as the onboard antenna in deployment of high capacity Rail communication train-to-ground systems.
	· Enables 2×2 MIMO with true polarisation diversity for high data throughput · Average combined condition number on the supported cellular bands of <10dB · Supporting 2G/3G/4G/5G bands between 694 – 4200 MHz and additionally includes a GNSS/LNA · Rugged design, meets EN 50155 railway standard and Fire retardant according to EN 45545-2 and NFPA130 · High Voltage and High Current protection for use under catenary lines
Item no.	85150811

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Vertical Polarisation	Vertical Polarisation	Vertical Polarisation	Horizontal Polarisation
Frequency (MHz)	617 – 960	1425 – 2690	3300 – 4200	694 – 960
VSWR	1.9	2.0	1.9	1.9
Gain (dBi)	7	8	9	7
Port Isolation (dB)	35	31	40	35
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Horizontal Polarisation	Horizontal Polarisation	GNSS 1	GNSS 2
Frequency (MHz)	1425 – 2690	3300 – 4200	1164 – 1279	1555 – 1610
VSWR	2.0	1.9	1.7	1.7
Gain (dBi)	9	9		
Port Isolation (dB)	31	40		

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (Cellular 1), Horizontal (Cellular 2), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	90 × 489 × 392 mm
Weight	7.5 kg

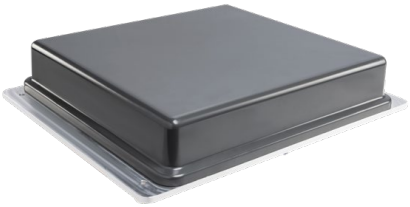
Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail MIMO+



Product name	**SENCITY Rail MIMO+ 4×4 antenna**
Product ID.	**1399.17.0303**
Description	Dual-Polarised Omni-directional 4×4 railway rooftop antenna, developed to be used as the onboard antenna in deployment of high capacity Rail communication train-to-ground systems.
	· Enables 4×4 MIMO with true polarisation diversity for high data throughput · Average combined condition number on the supported cellular bands of <10dB on the primary antennas · Supporting 2G/3G/4G/5G bands between 694 – 4200 MHz · Rugged design, meets EN 50155 railway standard and Fire retardant according to EN 45545-2 and NFPA130 · High Voltage and High Current protection for use under catenary lines
Item no.	85150809

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Vertical Polarisation	Vertical Polarisation	Vertical Polarisation
Frequency (MHz)	617 – 960	1425 – 2690	3300 – 4200
VSWR	2.0	2.1	2.1
Gain (dBi)	7	8	9
Port Isolation (dB)	35	29	38
	Band 4	**Band 5**	**Band 6**
Band name	Horizontal Polarisation	Horizontal Polarisation	Horizontal Polarisation
Frequency (MHz)	694 – 960	1515 – 2700	3300 – 4200
VSWR	1.9	2.1	2.2
Gain (dBi)	7	9	9
Port Isolation (dB)	35	29	38

Electrical data	
Impedance	50 Ohms
Number of Ports	4
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (Cellular 1, 3 and 4), Horizontal (Cellular 2)

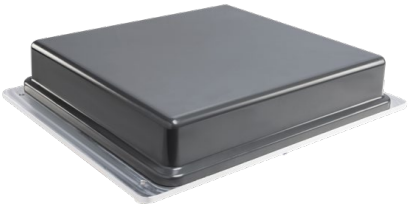
Mechanical data	
Dimensions (height × width × depth)	90 × 489 × 392 mm
Weight	8.0 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail MIMO+



Product name	**SENCITY Rail MIMO+ 4×4 antenna**
Product ID.	**1399.99.0303**
Description	Dual-Polarised Omni-directional 4×4 railway rooftop antenna, developed to be used as the onboard antenna in deployment of high capacity Rail communication train-to-ground systems.
	· Enables 4×4 MIMO with true polarisation diversity for high data throughput · Average combined condition number on the supported cellular bands of <10dB on the primary antennas · Supporting 2G/3G/4G/5G bands between 694 – 4200 MHz and additionally includes a GNSS/LNA · Rugged design, meets EN 50155 railway standard and Fire retardant according to EN 45545-2 and NFPA130 · High Voltage and High Current protection for use under catenary lines
Item no.	85150813

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Vertical Polarisation	Vertical Polarisation	Vertical Polarisation	Horizontal Polarisation
Frequency (MHz)	617 – 960	1425 – 2690	3300 – 4200	694 – 960
VSWR	2.0	2.1	2.1	1.8
Gain (dBi)	7	8	9	7
Port Isolation (dB)	35	29	38	35
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Horizontal Polarisation	Horizontal Polarisation	GNSS 1	GNSS 2
Frequency (MHz)	1515 – 2690	3300 – 4200	1164 – 1279	1555 – 1610
VSWR	1.9	2.2	1.5	1.5
Gain (dBi)	9	9		
Port Isolation (dB)	29	38		

Electrical data	
Impedance	50 Ohms
Number of Ports	5
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (Cellular 1, 3 and 4), Horizontal (Cellular 2) and Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	90 × 489 × 392 mm
Weight	8.15 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail MULTI

Product name	**SENCITY Rail MULTI 4-Port antenna**
Product ID.	**1399.17.0268**
Description	Omnidirectional 4×4 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment of high capacity Rail communication train-to-ground systems
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · 4×4 MIMO with four separate broadband integrated antennas · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · High Voltage and High Current protection for use under catenary lines
Item no.	85159947

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Cellular	Cellular	Cellular
Frequency (MHz)	617 – 694	694 – 960	1350 – 2700
VSWR	1.7	1.6	1.8
Gain (dBi)	3.5	5	6
Port Isolation (dB)	13	13	20
	Band 4	**Band 5**	**Band 6**
Band name	Cellular	Cellular	Cellular
Frequency (MHz)	2700 – 3300	3300 – 4900	4900 – 7125
VSWR	1.8	1.9	1.7
Gain (dBi)	6	6	6
Port Isolation (dB)	25	25	25

Electrical data	
Impedance	50 Ohms
Number of Ports	4
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	84 × 368 × 425 mm
Weight	8 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail MULTI

Product name	**SENCITY Rail MULTI 5-Port antenna**
Product ID.	**1399.99.0164**
Description	Omnidirectional 4×4 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment of high capacity Rail communication train-to-ground systems
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · 4×4 MIMO with four separate broadband integrated antennas · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · GNSS antenna supports GPS L1, Galileo E1, BeiDou B1, GLONASS G1 constellations
Item no.	85159948

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Cellular	Cellular	Cellular	Cellular
Frequency (MHz)	617 – 694	694 – 960	1350 – 2700	2700 – 3300
VSWR	1.7	1.6	1.8	1.8
Gain (dBi)	3.5	5	6	6
Port Isolation (dB)	13	13	20	25

	Band 5	Band 6	Band 7
Band name	Cellular	Cellular	GNSS
Frequency (MHz)	3300 – 4900	4900 – 7125	1559 – 1610
VSWR	1.9	1.7	1.8
Gain (dBi)	6	6	
Port Isolation (dB)	25	25	

Electrical data	
Impedance	50 Ohms
Number of Ports	5
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	84 × 368 × 425 mm
Weight	8 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail MULTI

Product name	**SENCITY Rail MULTI 7-Port antenna**
Product ID.	**1399.99.0153**
Description	Omnidirectional 4×4 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment of high capacity Rail communication train-to-ground systems
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · 4×4 MIMO cellular with four separate broadband integrated antennas and 2×2 MIMO Wi-Fi · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · GNSS antenna supports GPS L1, Galileo E1, BeiDou B1, GLONASS G1 constellations
Item no.	85104543

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular	Cellular	Cellular	Cellular
Frequency	617 – 694 MHz	694 – 960 MHz	1350 – 3300 MHz	3300 – 4200 MHz
VSWR	1.7	1.6	1.8	1.9
Gain (dBi)	3.5 dBi	5 dBi	6 dBi	6 dBi
Port Isolation (dB)	13	13	20	25
	Band 5	**Band 6**	**Band 7**	**Band 8/9**
Band name	Cellular	Wi-Fi	Wi-Fi	GNSS
Frequency	4900 – 7125 MHz	2400 – 2500 MHz	4900 – 7125 MHz	1559 – 1610 MHz
VSWR	1.7	1.7	1.5	1.8
Gain	6 dBi	7 dBi	7 dBi	
Port Isolation (dB)	25	22	35	

Electrical data	
Impedance	50 Ohms
Number of Ports	7
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	84 × 368 × 425 mm
Weight	8 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail MULTI

Product name	**SENCITY Rail MULTI 7-Port antenna with Dualband GNSS/LNA**
Product ID.	**1399.99.0162**
Description	Omnidirectional 4×4 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment of high capacity Rail communication train-to-ground systems
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · Cellular 4×4 MIMO with four separate broadband integrated antennas and Wi-Fi 2×2 MIMO with two separate antennas · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · Includes dualband GNSS antenna & integrated LNA covering GPS L1+L2+L5/Galileo E1+E5a+E5b/BeiDou B1+B2+B3/GLONASS G1+G2
Item no.	85173739

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular	Cellular	Cellular	Cellular
Frequency	617 – 694 MHz	694 – 960 MHz	1350 – 3300 MHz	3300 – 4200 MHz
VSWR	1.7	1.6	1.8	1.9
Gain (dBi)	3.5 dBi	5 dBi	6 dBi	6 dBi
Port Isolation (dB)	13	13	20	25
	Band 5	**Band 6**	**Band 7**	**Band 8/9**
Band name	Cellular	Wi-Fi	Wi-Fi	GNSS
Frequency	4900 – 7125 MHz	2400 – 2500 MHz	4900 – 7125 MHz	1164 – 1279 MHz 1559 – 1610 MHz
VSWR	1.7	1.7	1.5	1.5
Gain	6 dBi	7 dBi	7 dBi	
Port Isolation (dB)	25	22	35	

Electrical data	
Impedance	50 Ohms
Number of Ports	7
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	84 × 368 × 425 mm
Weight	8 kg

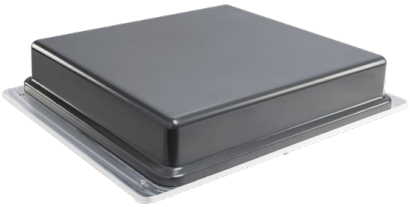
Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail MULTI



Product name	**SENCITY Rail MULTI antenna with DAB+ and GNSS**
Product ID.	**1399.99.0166**
Description	Omnidirectional 4×4 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment of high capacity Rail communication train-to-ground systems
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · Supports DAB+ Band III on one port · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · GNSS antenna supports GPS L1, Galileo E1, BeiDou B1, GLONASS G1 constellations
Item no.	85178100

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular	Cellular	Cellular	Cellular
Frequency	617 – 960 MHz	1350 – 3300 MHz	3300 – 49000 MHz	49000 – 7125 MHz
VSWR	2.1	2.1	2.1	2.1
Gain (dBi)	7 dBi	8 dBi	8 dBi	8 dBi
Port Isolation (dB)	15	20	25	25
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Wi-Fi	Wi-Fi	DAB+	GNSS
Frequency	4900 – 7125 MHz	2400 – 2500 MHz	174 – 240 MHz	1559 – 1610 MHz
VSWR	2.0	2.0		1.5
Gain	9 dBi	9 dBi		
Port Isolation (dB)	20	30		

Electrical data	
Impedance	50 Ohms
Number of Ports	8
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (Cellular, Wi-Fi, DAB+), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	84 × 368 × 862 mm
Weight	11 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail MULTI

Product name	**SENCITY Rail MULTI 9-Port antenna**
Product ID.	**1399.99.0165**
Description	Omnidirectional 4×4 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment of high capacity Rail communication train-to-ground systems
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · Cellular 4×4 MIMO with four separate broadband integrated antennas and Wi-Fi 4×4 MIMO with four separate antennas · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · GNSS antenna supports GPS L1, Galileo E1, BeiDou B1, GLONASS G1 constellations
Item no.	85159949

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular	Cellular	Cellular	Cellular
Frequency	617 – 694 MHz	694 – 960 MHz	1350 – 3300 MHz	3300 – 4900 MHz
VSWR	1.7	1.6	1.8	1.9
Gain (dBi)	3.5 dBi	5 dBi	6 dBi	6 dBi
Port Isolation (dB)	13	13	20	25
	Band 5	**Band 6**	**Band 7**	**Band 8/9**
Band name	Cellular	Wi-Fi	Wi-Fi	GNSS
Frequency	4900 – 7125 MHz	2400 – 2500 MHz	4900 – 7125 MHz	1559 – 1610 MHz
VSWR	2.0	2.0	1.5	1.8
Gain	6 dBi	7 dBi	7 dBi	
Port Isolation (dB)	25	22	35	

Electrical data	
Impedance	50 Ohms
Number of Ports	8
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (Cellular, Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	84 × 368 × 425 mm
Weight	8 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail MULTI

Product name	**SENCITY Rail MULTI 13-Port antenna**
Product ID.	**1399.99.0133**
Description	Omnidirectional 2 × 4×4 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment of high capacity Rail communication train-to-ground systems
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · Cellular 4×4 MIMO with eight separate broadband integrated antennas and Wi-Fi 4×4 MIMO with four separate antennas · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · GNSS antenna supports GPS L1, Galileo E1, BeiDou B1, GLONASS G1 constellations
Item no.	85010652

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular	Cellular	Cellular	Cellular
Frequency	617 – 694 MHz	694 – 960 MHz	1350 – 3300 MHz	3300 – 4900 MHz
VSWR	1.7	1.6	1.8	1.9
Gain (dBi)	3.5 dBi	5 dBi	6 dBi	6 dBi
Port Isolation (dB)	13	13	20	25
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Cellular	Wi-Fi	Wi-Fi	GNSS
Frequency	4900 – 7125 MHz	2400 – 2500 MHz	4900 – 7125 MHz	1559 – 1610 MHz
VSWR	2.0	2.0	1.5	1.8
Gain	6 dBi	7 dBi	7 dBi	
Port Isolation (dB)	25	22	35	

Electrical data	
Impedance	50 Ohms
Number of Ports	13
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (Cellular, Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	84 × 368 × 862 mm
Weight	11 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail MIMO

Product name	**SENCITY Rail MIMO antenna with GNSS/LNA**
Product ID.	**1399.99.0148**
Description	Omnidirectional 2×2 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · Embedded GNSS antenna with integrated LNA supports GPS L1, Galileo E1, BeiDou B1 and GLONASS G1 · Dedicated grounding contact and Cable conduit support (sold separately)
Item no.	85085125

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	617 – 694 MHz	694 – 790 MHz	790 – 960 MHz	1350 – 2700 MHz
VSWR	1.7	1.7	1.7	1.8
Gain (dBi)	6 dBi	5 dBi	6 dBi	7.5 dBi
Port Isolation (dB)	15	15	15	25
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	GNSS
Frequency	2700 – 3300 MHz	3300 – 4900 MHz	4900 – 7125 MHz	1559 – 1610 MHz
VSWR	2.0	2.1	1.9	1.8
Gain	6.5 dBi	6.5 dBi	7.5 dBi	
Port Isolation (dB)	25	25	35	

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	81.6 × 102.5 × 352.5 mm
Weight	2.1 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IP6KX, IPX7, IPX8, IPX9, IPX9K
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail MIMO

Product name	**SENCITY Rail MIMO antenna**
Product ID.	**1399.17.0221**
Description	Omnidirectional 2×2 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · Dedicated grounding contact and Cable conduit support (sold separately)
Item no.	85088375

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	617 – 694 MHz	694 – 790 MHz	790 – 960 MHz	1350 – 2700 MHz
VSWR	1.7	1.7	1.7	1.8
Gain (dBi)	6 dBi	5 dBi	6 dBi	7.5 dBi
Port Isolation (dB)	15	15	15	20

	Band 5	Band 6	Band 7
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	2700 – 3300 MHz	3300 – 4900 MHz	4900 – 7125 MHz
VSWR	2.0	2.1	1.9
Gain	6.5 dBi	6.5 dBi	7.5 dBi
Port Isolation (dB)	25	25	35

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	100 – 250 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi)

Mechanical data	
Dimensions (height × width × depth)	81.6 × 102.5 × 352.5 mm
Weight	2.0 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IP6KX, IPX7, IPX8, IPX9, IPX9K
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information please see the davtasheet or scan the OR code.

Railway

SENCITY Rail MIMO

Product name	**SENCITY Rail MIMO antenna with Dualband GNSS/LNA**
Product ID.	**1399.99.0152**
Description	Omnidirectional 2×2 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · 2×2 MIMO with two separate broadband integrated antennas · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · Includes dualband GNSS antenna & integrated LNA covering GPS L1+L2+L5/Galileo E1+E5a+E5b/BeiDou B1+B2+B3/GLONASS G1+G2
Item no.	85141565

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	617 – 694 MHz	694 – 790 MHz	790 – 960 MHz	1350 – 2700 MHz
VSWR	1.7	1.5	1.5	1.8
Gain (dBi)	6 dBi	5 dBi	6 dBi	7.5 dBi
Port Isolation (dB)	15	15	30	25
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	GNSS	GNSS
Frequency	2700 – 4900 MHz	4900 – 7125 MHz	1164 – 1279 MHz	1555 – 1610 MHz
VSWR	1.8	1.6	1.5	1.5
Gain	6.5 dBi	6.5 dBi		
Port Isolation (dB)	35	35		

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	81.6 × 102.5 × 352.5 mm
Weight	1.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IP6KX, IPX7, IPX8, IPX9, IPX9K
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail MIMO

Product name	**SENCITY Rail MIMO 5-Port antenna with GNSS/LNA**
Product ID.	**1399.99.0157**
Description	Omnidirectional 2×2 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · Cellular 2×2 MIMO with two separate broadband integrated antennas and Wi-Fi 2×2 MIMO with two separate antennas · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · GNSS receiver supports GPS L1, Galileo E1, BeiDou B1, GLONASS G1 constellations
Item no.	85137717

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	617 – 960 MHz	1350 – 2700 MHz	2700 – 3300 MHz	3300 – 4900 MHz
VSWR	1.7	1.7	1.7	1.8
Gain (dBi)	5 dBi	7 dBi	5.5 dBi	5.5 dBi
Port Isolation (dB)	15	25	45	35
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Cellular / Wi-Fi	Wi-Fi	Wi-Fi	GNSS
Frequency	4900 – 7125 MHz	2400 – 2500 MHz	4900 – 7125 MHz	1559 – 1610 MHz
VSWR	1.8	1.7	2.3	1.8
Gain	7 dBi	6 dBi	6.5 dBi	
Port Isolation (dB)	40	15	15	

Electrical data	
Impedance	50 Ohms
Number of Ports	5
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	81.6 × 102.5 × 352.5 mm
Weight	2.3 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IP6KX, IPX7, IPX8, IPX9, IPX9K
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail MIMO

Product name	**SENCITY Rail MIMO 5-Port antenna with Dualband GNSS/LNA**
Product ID.	**1399.99.0174**
Description	Omnidirectional 2×2 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · Cellular 2×2 MIMO with two separate broadband integrated antennas and Wi-Fi 2×2 MIMO with two separate antennas · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · Includes dualband GNSS antenna & integrated LNA covering GPS L1+L2+L5/Galileo E1+E5a+E5b/BeiDou B1+B2+B3/GLONASS G1+G2
Item no.	85208306

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	617 – 960 MHz	1350 – 2700 MHz	2700 – 3300 MHz	3300 – 4900 MHz
VSWR	1.7	1.7	1.7	1.8
Gain (dBi)	5 dBi	7 dBi	5.5 dBi	5.5 dBi
Port Isolation (dB)	15	25	45	35
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Cellular / Wi-Fi	Wi-Fi	Wi-Fi	GNSS
Frequency	4900 – 7125 MHz	2400 – 2500 MHz	4900 – 7125 MHz	1164 – 1279 MHz 1559 – 1610 MHz
VSWR	1.8	1.7	2.3	1.5
Gain	7 dBi	6 dBi	6.5 dBi	
Port Isolation (dB)	40	15	15	
Port Isolation (dB)				

Electrical data	
Impedance	50 Ohms
Number of Ports	5
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	81.6 × 102.5 × 352.5 mm
Weight	2.3 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IP6KX, IPX7, IPX8, IPX9, IPX9K
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail Low Profile

Product name	**SENCITY Rail MIMO 2x2 Low Profile antenna**
Product ID.	**1399.17.0145**
Description	Omnidirectional 2x2 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems with tight tunnel gauges
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · Extremely low profile (40mm) · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · Dedicated grounding contact (sold separately)
Item no.	85106683

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	694 – 960 MHz	1350 -1450 MHz	1450 – 2700 MHz
VSWR	1.8	1.9	1.6
Gain (dBi)	5 dBi	7 dBi	6.5 dBi
Port Isolation (dB)	15	16	20
	Band 4	**Band 5**	**Band 6**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	3300 – 4200 MHz	4900 – 5150 MHz	5150 – 7125 MHz
VSWR	1.8	1.8	1.8
Gain	7.5 dBi	9 dBi	8 dBi
Port Isolation (dB)	25	25	25

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi)

Mechanical data	
Dimensions (height × width × depth)	40 × 108 × 474 mm
Weight	1.3 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail Low Profile

Product name	**SENCITY Rail MIMO 2×2 Low Profile antenna with GPS**
Product ID.	**1399.99.0072**
Description	Omnidirectional 2×2 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems with tight tunnel gauges
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · Extremely low profile (40mm) · Rugged design, meets EN 50155 Railway Standard and Fire retardant according to EN 45545-2 and NFPA-130 · Includes embedded passive GPS antenna (requires separate LNA such as 86010142) · Dedicated grounding contact (sold separately)
Item no.	85106685

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	694 – 960 MHz	1350 -1450 MHz	1450 – 2700 MHz	3300 – 4200 MHz
VSWR	1.8	1.9	1.6	1.8
Gain (dBi)	5 dBi	7 dBi	6.5 dBi	7.5 dBi
Port Isolation (dB)	15	16	20	25

	Band 5	**Band 6**	**Band 7**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	GPS
Frequency	4900 – 5150 MHz	5150 – 7125 MHz	1574.4 – 1576.4
VSWR	1.8	1.8	1.8
Gain	9 dBi	8 dBi	
Port Isolation (dB)	25	25	

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	40 × 108 × 474 mm
Weight	1.3 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail Low Profile

Product name	**SENCITY Rail MIMO 2×2 Low Profile antenna with GNSS/LNA**
Product ID.	**1399.99.0077**
Description	Omnidirectional 2×2 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems with tight tunnel gauges
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · Extremely low profile (40mm) · Rugged design, meets EN 50155 Railway Standard and Fire retardant according to EN 45545-2 and NFPA-130 · Includes embedded GNSS antenna with integrated LNA supporting GPS L1, Galileo E1, BeiDou B1 and GLONASS G1 · Dedicated grounding contact (sold separately)
Item no.	85106684

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	694 – 960 MHz	1350 -1450 MHz	1450 – 2700 MHz	3300 – 4200 MHz
VSWR	1.8	1.9	1.6	1.8
Gain (dBi)	5 dBi	7 dBi	6.5 dBi	7.5 dBi
Port Isolation (dB)	15	16	20	25
	Band 5	**Band 6**	**Band 7**	
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	GNSS	
Frequency	4900 – 5150 MHz	5150 – 7125 MHz	1559 – 1610	
VSWR	1.8	1.8	1.5	
Gain	9 dBi	8 dBi		
Port Isolation (dB)	25	25		

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	40 × 108 × 474 mm
Weight	1.3 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail Low Profile

Product name	**SENCITY Rail MIMO 2×2 Low Profile antenna with Dualband GNSS/LNA**
Product ID.	**1399.99.0082**
Description	Omnidirectional 2×2 MIMO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems with tight tunnel gauges
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 6E bands · Extremely low profile (40mm) · Rugged design, meets EN 50155 Railway Standard and Fire retardant according to EN 45545-2 and NFPA-130 · Includes dualband GNSS antenna & integrated LNA covering GPS L1+L2+L5/Galileo E1+E5a+E5b/BeiDou B1+B2+B3/GLONASS G1+G2 · Dedicated grounding contact (sold separately)
Item no.	85150817

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	694 – 960 MHz	1350 -1450 MHz	1450 – 2700 MHz	3300 – 4200 MHz
VSWR	1.8	1.9	1.6	1.8
Gain (dBi)	5 dBi	7 dBi	6.5 dBi	7.5 dBi
Port Isolation (dB)	15	16	20	25
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	GNSS	GNSS
Frequency	4900 – 5150 MHz	5150 – 7125 MHz	1164 – 1279	1555 – 1610
VSWR	1.8	1.8	1.5	1.5
Gain	9 dBi	8 dBi		
Port Isolation (dB)	25	25		

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	40 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	40 × 108 × 474 mm
Weight	1.3 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX8, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail Low Profile

Product name	**SENCITY Rail Low Profile antenna**
Product ID.	**1399.17.0125**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems with tight tunnel gauges
	· Railway rooftop antenna for 2G/3G/4G cellular and Wi-Fi 4/Wi-Fi 6 bands · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 · Multiple Antenna installations support Cellular and Wi-Fi MIMO · Extremely low profile (40mm)
Item no.	84080683

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	790 – 806 MHz	806 -870 MHz	870 – 960 MHz
VSWR	2.2	1.9	1.6
Gain (dBi)	5 dBi	5 dBi	5 dBi
	Band 4	**Band 5**	
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	
Frequency	1350 – 2700 MHz	4900 – 6425 MHz	
VSWR	2.0	2.1	
Gain (dBi)	5 dBi	8 dBi	

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	300 – 550 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi)

Mechanical data	
Dimensions (height × width × depth)	40 × 100 × 145 mm
Weight	0.488 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP69K
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail Low Profile

Product name	**SENCITY Rail Low Profile antenna with GPS**
Product ID.	**1399.99.0032**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems with tight tunnel gauges
	· Railway rooftop antenna for 2G/3G/4G cellular and Wi-Fi 4/Wi-Fi 6 bands · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 · Includes embedded passive GPS antenna (requires separate LNA such as 86010142) · Extremely low profile (40mm)
Item no.	84076252

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	790 – 806 MHz	806 -870 MHz	870 – 960 MHz
VSWR	2.2	1.9	1.6
Gain (dBi)	5 dBi	5 dBi	5 dBi
	Band 4	**Band 5**	**Band 6**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	GPS
Frequency	1350 – 2700 MHz	4900 – 6425 MHz	1574.397 – 1576.443
VSWR	2.0	2.1	1.5
Gain (dBi)	5 dBi	8 dBi	

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	40 × 100 × 145 mm
Weight	0.527 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP69K
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail Low Profile

Product name	**SENCITY Rail Low Profile antenna with GNSS / LNA**
Product ID.	**1399.99.0037**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems with tight tunnel gauges
	· Railway rooftop antenna for 2G/3G/4G cellular and Wi-Fi 4/Wi-Fi 6 bands · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 · Includes embedded GNSS antenna with integrated LNA supporting GPS L1, Galileo E1, BeiDou B1 and GLONASS G1 · Extremely low profile (40mm)
Item no.	84080682

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	790 – 806 MHz	806 -870 MHz	870 – 960 MHz
VSWR	2.2	1.9	1.5
Gain (dBi)	5 dBi	5 dBi	5 dBi
	Band 4	**Band 5**	**Band 6**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	GNSS
Frequency	1350 – 2700 MHz	4900 – 6425 MHz	1559 – 1610
VSWR	2.0	2.1	1.8
Gain (dBi)	5 dBi	8 dBi	

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	40 × 100 × 145 mm
Weight	0.535 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP69K
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail

Product name	**SENCITY Rail antenna with GNSS / LNA**
Product ID.	**1399.99.0026**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems.
	· Railway rooftop antenna for Tetra, DVB-T, 2G/3G/4G/5G cellular and Wi-Fi 4/Wi-Fi 6 bands · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 · Includes embedded GNSS antenna with integrated LNA supporting GPS L1, Galileo E1, BeiDou B1 and GLONASS G1 · Dedicated grounding contact and Cable conduit support (sold separately)
Item no.	84069929

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	TETRA	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	380 – 694 MHz	694 – 960 MHz	1350 – 1525 MHz	1710 – 2700 MHz
VSWR	1.8	1.8	1.5	1.5
Gain (dBi)	3 dBi	4 dBi	7.5 dBi	7.5 dBi
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	GNSS
Frequency	2700 – 3300 MHz	3300 – 4900 MHz	4900 – 6425 MHz	1559 – 1610 MHz
VSWR	1.5	1.7	1.5	1.8
Gain	6.5 dBi	7 dBi	8 dBi	

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	154 × 100 × 256 mm
Weight	1.6 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**1399.17.0094**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems.
	· Railway rooftop antenna for Tetra, DVB-T, 2G/3G/4G/5G cellular and Wi-Fi 4/Wi-Fi 6 bands · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · Multiple Antenna installations support Cellular and Wi-Fi MIMO · Dedicated grounding contact and Cable conduit support (sold separately)
Item no.	84029691

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	TETRA	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	380 – 694 MHz	694 – 960 MHz	1350 – 2700 MHz
VSWR	1.8	1.8	1.5
Gain (dBi)	3 dBi	4 dBi	7.5 dBi
	Band 4	**Band 5**	**Band 6**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	2700 – 3300 MHz	3300 – 4900 MHz	4900 – 6425 MHz
VSWR	1.5	1.7	1.5
Gain	6.5 dBi	7 dBi	8 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	300 – 800 Watts (see datasheet for specific bands)
Polarisation	Vertical (TETRA/cellular / Wi-Fi)

Mechanical data	
Dimensions (height × width × depth)	154 × 100 × 256 mm
Weight	1.6 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**1399.99.0120**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems.
	· Railway rooftop antenna for Tetra, DVB-T, 2G/3G/4G/5G cellular and Wi-Fi 4/Wi-Fi 6 bands · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · Embedded GNSS antenna with integrated LNA supports GPS L1, Galileo E1, BeiDou B1 and GLONASS G1 · Dedicated grounding contact and Cable conduit support (sold separately)
Item no.	84071811

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	694 – 790 MHz	790 – 960 MHz	1350 – 1525 MHz	1710 – 2700 MHz
VSWR	2.0	1.5	2.2	1.5
Gain (dBi)	5 dBi	5 dBi	6 dBi	6 dBi
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	GNSS
Frequency	2700 – 3300 MHz	3300 – 4900 MHz	4900 – 6425 MHz	1559 – 1610 MHz
VSWR	1.5	1.7	1.5	1.8
Gain	8.5 dBi	7 dBi	7.5 dBi	

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	90 × 100 × 256 mm
Weight	1.0 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**1399.17.0122**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems.
	· Railway rooftop antenna for Tetra, DVB-T, 2G/3G/4G/5G cellular and Wi-Fi 4/Wi-Fi 6 bands · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · Multiple Antenna installations support Cellular and Wi-Fi MIMO · Dedicated grounding contact and Cable conduit support (sold separately)
Item no.	84071876

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	694 – 790 MHz	790 – 960 MHz	1350 – 1710 MHz	1710 – 2700 MHz
VSWR	2.0	1.5	2.2	1.5
Gain (dBi)	5 dBi	5 dBi	6 dBi	6 dBi
	Band 5	**Band 6**	**Band 7**	
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	
Frequency	2700 – 3300 MHz	3300 – 4900 MHz	4900 – 6425 MHz	
VSWR	1.5	1.7	1.5	
Gain	8.5 dBi	7 dBi	7.5 dBi	

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	300 – 800 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi)

Mechanical data	
Dimensions (height × width × depth)	90 × 100 × 256 mm
Weight	0.8 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail

Product name	**SENCITY Rail antenna with GNSS / LNA**
Product ID.	**87010012**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems.
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 4/Wi-Fi 6 bands · Embedded GNSS antenna with integrated LNA supports GPS L1, Galileo E1, BeiDou B1 and GLONASS G1 · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84459559

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	694 – 960 MHz	960 – 2200 MHz	2200 – 2700 MHz	2700 – 3300 MHz
VSWR	1.5	2.0	2.0	2.0
Gain (dBi)	5 dBi	6 dBi	7.5 dBi	7 dBi
	Band 5	**Band 6**	**Band 7**	
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	GNSS	
Frequency	3300 – 4900 MHz	4900 – 6425 MHz	1559 – 1620 MHz	
VSWR	1.5	1.7	2.0	
Gain (dBi)	6.5 dBi	7.5 dBi		

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	93 × 146 × 86 mm
Weight	0.63 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail

Product name	**SENCITY Rail antenna with GNSS / LNA**
Product ID.	**87010022**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems.
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 4/Wi-Fi 6 bands · Embedded GNSS antenna with integrated LNA supports GPS L1, Galileo E1, BeiDou B1 and GLONASS G1 · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84459566

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	694 – 960 MHz	960 – 2200 MHz	2200 – 2700 MHz	2700 – 3300 MHz
VSWR	1.5	2.0	2.0	2.0
Gain (dBi)	5 dBi	6 dBi	7.5 dBi	7 dBi
	Band 5	**Band 6**	**Band 7**	
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	GNSS	
Frequency	3300 – 4900 MHz	4900 – 6425 MHz	1559 – 1620 MHz	
VSWR	1.5	1.7	2.0	
Gain (dBi)	6.5 dBi	7.5 dBi		

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	93 × 146 × 86 mm
Weight	0.63 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail

Product name	**SENCITY Rail antenna with GNSS**
Product ID.	**87010032**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems.
	· Railway rooftop antenna for 2G/3G/4G/5G cellular and Wi-Fi 4/Wi-Fi 6 bands · Embedded GNSS antenna supports GPS L1, Galileo E1, BeiDou B1 and GLONASS G1 (requires seperate LNA such as 86010142 · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84459531

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	694 – 960 MHz	960 – 2200 MHz	2200 – 2700 MHz	2700 – 3300 MHz
VSWR	1.5	2.0	2.0	2.0
Gain (dBi)	5 dBi	6 dBi	7.5 dBi	7 dBi
	Band 5	**Band 6**	**Band 7**	
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	GNSS	
Frequency	3300 – 4900 MHz	4900 – 6425 MHz	1559 – 1620 MHz	
VSWR	1.5	1.7	2.0	
Gain (dBi)	6.5 dBi	7.5 dBi		

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	93 × 146 × 86 mm
Weight	0.63 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail

Product name	**SENCITY Rail antenna with GPS**
Product ID.	**87010023**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems.
	· Railway rooftop antenna for sub-2700 MHz 2G/3G/4G/5G cellular and Wi-Fi 1/ Wi-Fi 3 bands · Embedded GPS antenna (requires seperate LNA such as 86010142) · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84459289

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	694 – 960 MHz	960 – 1710 MHz	1710 – 2200 MHz
VSWR	1.5	2.0	2.0
Gain (dBi)	4.5 dBi	5.5 dBi	7.5 dBi
	Band 4	**Band 5**	
Band name	Cellular / Wi-Fi	GPS	
Frequency	2200 – 2700 MHz	1574.4 – 1576.4 MHz	
VSWR	2.0	2.0	
Gain (dBi)	7.5 dBi	8 dBi	

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	81 × 145 × 85 mm
Weight	0.45 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**87010007**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems.
	· Railway rooftop antenna for sub-2700 MHz 2G/3G/4G cellular and Wi-Fi 1/ Wi-Fi 3 bands (790 to 2700 MHz) · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84459410

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	694 – 960 MHz	960 – 1710 MHz	1710 – 2200 MHz	2200 – 2700 MHz
VSWR	2.2	1.5	1.5	1.8
Gain (dBi)	4.5 dBi	5.5 dBi	7.5 dBi	7 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi)

Mechanical data	
Dimensions (height × width × depth)	81 × 145 × 85 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail

Product name	**SENCITY Rail antenna with GPS**
Product ID.	**87010011**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems.
	· Railway rooftop antenna for 1800/1900/UMTS/LTE/Wi-Fi 1/Wi-Fi 3 bands · Embedded GPS antenna (requires seperate LNA such as 86010142) · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84460318

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	1710 – 1920 MHz	1920 – 2600 MHz	2600 – 3200 MHz
VSWR	1.7	1.5	1.6
Gain (dBi)	7 dBi	6.5 dBi	5.5 dBi
	Band 4	**Band 5**	
Band name	Cellular / Wi-Fi	GPS	
Frequency	3200 – 3800 MHz	1174.4 – 1576.4 MHz	
VSWR	1.5	2.0	
Gain (dBi)	7 dBi		

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	81 × 145 × 85 mm
Weight	0.45 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**87010010**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Rail communication train-to-ground systems.
	· Railway rooftop antenna for 1800/1900/UMTS/LTE/Wi-Fi 1/Wi-Fi 3 bands · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84460316

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	1710 – 1920 MHz	1920 – 2600 MHz	2600 – 3200 MHz	3200 – 3800 MHz
VSWR	1.7	1.5	1.6	1.5
Gain (dBi)	7 dBi	6.5 dBi	5.5 dBi	7 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular / Wi-Fi), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	81 × 145 × 85 mm
Weight	0.45 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway
SENCITY Rail

Product name	**SENCITY Rail antenna with GPS**
Product ID.	**87010006**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for GSM-R and or TETRA systems
	· Railway rooftop multiband antenna for 430 – 470 MHz and 870 – 960 MHz · Embedded GPS antenna (requires seperate LNA such as 86010142) · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84460309

Technical Data	Band 1	Band 2	Band 3
Band name	TETRA	GSM-R	GPS
Frequency	430 – 470 MHz	870 – 960 MHz	1574.4 – 1576.4 MHz
VSWR	1.5	1.5	2.0
Gain (dBi)	3.5 dBi	4.5 dBi	6.5 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (TETRA / GSM-R), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	150 × 145 × 85 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**87010009**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for GSM-R and or TETRA systems
	· Railway rooftop multiband antenna for 430 – 470 MHz and 870 – 960 MHz · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84460314

Technical Data	Band 1	Band 2
Band name	TETRA	GSM-R
Frequency	430 – 470 MHz	870 – 960 MHz
VSWR	1.5	1.5
Gain (dBi)	3.5 dBi	4.5 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (TETRA / GSM-R)

Mechanical data	
Dimensions (height × width × depth)	150 × 145 × 85 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail

Product name	**SENCITY Rail antenna with GPS**
Product ID.	**87010005**
Description	Omnidirectional TETRA railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment of TETRA systems
	· Railway rooftop antenna for 380 to 430 MHz · Embedded GPS antenna (requires seperate LNA such as 86010142) · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84460307

Technical Data	**Band 1**	**Band 2**
Band name	TETRA	GPS
Frequency	380 – 430 MHz	1574.4 – 1576.4 MHz
VSWR	1.5	2.0
Gain (dBi)	4 dBi	

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (TETRA)

Mechanical data	
Dimensions (height × width × depth)	150 × 145 × 85 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**87010008**
Description	Omnidirectional TETRA railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment of TETRA systems
	· Railway rooftop antenna for 380 to 430 MHz · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84460312

Technical Data	**Band 1**
Band name	TETRA
Frequency	380 – 430 MHz
VSWR	1.5
Gain (dBi)	4 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (TETRA)

Mechanical data	
Dimensions (height × width × depth)	150 × 145 × 85 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**741009**
Description	Omnidirectional GSM-R railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment of GSM-R systems
	· Railway rooftop antenna for GSM-R (900 MHz) · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84460303

Technical Data	**Band 1**
Band name	GSM-R
Frequency	870 – 960 MHz
VSWR	1.5
Gain (dBi)	4.5 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (GSM-R)

Mechanical data	
Dimensions (height × width × depth)	95 × 145 × 82 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**727313**
Description	Omnidirectional FM-broadcast receiving railway roof-top antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna for railway vehicles with an FM radio system
	· Supports the frequency range of 87.5 – 108 MHz as a receive-only antenna · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84460301

Technical Data	**Band 1**
Band name	4M Band
Frequency	87.5 – 108 MHz

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Polarisation	Vertical (4M Band)

Mechanical data	
Dimensions (height × width × depth)	355 × 145 × 80 mm
Weight	0.9 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**733707**
Description	Omnidirectional 2M band railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna for railway vehicles which require an antenna covering the 2M band
	· Supports the frequency range of 146 – 172 MHz · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84465797

Technical Data	**Band 1**
Band name	2M Band
Frequency	146 – 172 MHz
VSWR	2.0

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Polarisation	Vertical (2M Band)

Mechanical data	
Dimensions (height × width × depth)	355 × 145 × 80 mm
Weight	0.9 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**K702121**
Description	Omnidirectional TETRA railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment of TETRA systems.
	· Railway rooftop antenna for 450 to 470 MHz · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84460329

Technical Data	**Band 1**
Band name	TETRA
Frequency	450 – 470 MHz
VSWR	1.6
Gain	3 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Polarisation	Vertical (TETRA)

Mechanical data	
Dimensions (height × width × depth)	355 × 145 × 80 mm
Weight	0.8 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**K702021**
Description	Omnidirectional TETRA railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment of TETRA systems.
	· Railway rooftop antenna for 410 to 470 MHz · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84460324

Technical Data	**Band 1**
Band name	TETRA
Frequency	410 – 470 MHz
VSWR	1.5
Gain	4 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Polarisation	Vertical (TETRA)

Mechanical data	
Dimensions (height × width × depth)	142 × 145 × 80 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**K702061**
Description	Omnidirectional multiband railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for GSM-R and or TETRA systems.
	· Railway rooftop multiband antenna for 450 – 470 MHz and 790 – 960 MHz · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	84460326

Technical Data	Band 1	Band 2
Band name	TETRA	GSM-R
Frequency	450 – 470 MHz	790 – 960 MHz
VSWR	1.4	1.5
Gain	4 dBi	3.5 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Polarisation	Vertical (TETRA/GSM-R)

Mechanical data	
Dimensions (height × width × depth)	142 × 145 × 80 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail

Product name	**SENCITY Rail antenna**
Product ID.	**741557**
Description	Omnidirectional multiband railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for GSM-R and or TETRA systems.
	· Railway rooftop multiband antenna for 380 – 400 MHz and 790 – 960 MHz · Rugged design, meets EN 50155 railway standard · Fire retardant acc. to EN 45545-2 · Contains a heavy duty fibreglass radome
Item no.	85126129

Technical Data	**Band 1**	**Band 2**
Band name	TETRA	GSM-R
Frequency	380 – 400 MHz	790 – 960 MHz
VSWR	1.6	1.5
Gain	3.5 dBi	4 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Polarisation	Vertical (TETRA/GSM-R)

Mechanical data	
Dimensions (height × width × depth)	142 × 145 × 80 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	Fiberglass
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail PTC

Product name	**SENCITY Rail PTC antenna**
Product ID.	**1302.99.0026**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Positive Train Control systems.
	· Railway rooftop antenna for Positive train control (220 MHz) · Embedded GNSS antenna with integrated LNA supports GPS L1, Galileo E1, BeiDou B1 and GLONASS G1 · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · Dedicated grounding contact and Cable conduit support (sold separately)
Item no.	85142011

Technical Data	**Band 1**	**Band 2**
Band name	PTC	GNSS
Frequency	219.98 – 220.02 MHz	1559 – 1620 MHz
VSWR	1.5	1.8
Gain (dBi)	1.72 dBi	

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (PTC), Circular Right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	154 × 100 × 256 mm
Weight	1.6 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130, EN50121-3-2

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail PTC

Product name	**SENCITY Rail PTC antenna**
Product ID.	**1302.17.0094**
Description	Omnidirectional SISO railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna in deployment for Positive Train Control systems.
	· Railway rooftop antenna for Positive train control (220 MHz) · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130 · Dedicated grounding contact and Cable conduit support (sold separately)
Item no.	85142012

Technical Data	**Band 1**
Band name	PTC
Frequency	219.98 – 220.02 MHz
VSWR	1.5
Gain (dBi)	1.72 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	80 Watts (see datasheet for specific bands)
Polarisation	Vertical (PTC)

Mechanical data	
Dimensions (height × width × depth)	154 × 100 × 256 mm
Weight	1.6 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail Excel

Product name	**SENCITY Rail Excel antenna**
Product ID.	**1356.17.0010**
Description	Directional railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna with dedicated trackside/tunnel antennas operating on the 5 GHz band
	· Railway rooftop directional antenna for Wi-Fi bands between 4900 and 5975 MHz · Gain of 12 dBi with Vertical polarization · Half power beamwidth of 17° (vertical) and 48° (Horizontal) · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130
Item no.	84012128

Technical Data	**Band 1**	**Band 2**
Band name	Wi-Fi	Wi-Fi
Frequency	4900 – 5150 MHz	5150 – 5975 MHz
VSWR	1.6	1.7
Gain (dBi)	12 dBi	12 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	300 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	90 × 100 × 260 mm
Weight	1.4 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail Excel

Product name	**SENCITY Rail Excel antenna**
Product ID.	**1356.17.0042**
Description	Bi-directional railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna with dedicated trackside/tunnel antennas operating on the 5 GHz band
	· Railway rooftop bi-directional antenna for Wi-Fi bands between 4900 and 5975 MHz · Gain of 12 dBi with Vertical polarization · Half power beamwidth of 17° (vertical) and 48° (Horizontal) · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130
Item no.	84027010

Technical Data	Band 1	Band 2
Band name	Wi-Fi	Wi-Fi
Frequency	4900 – 5150 MHz	5150 – 5975 MHz
VSWR	1.6	1.7
Gain (dBi)	12 dBi	12 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	300 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	90 × 100 × 260 mm
Weight	1.4 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail Excel

Product name	**SENCITY Rail Excel antenna**
Product ID.	**1356.17.0097**
Description	Directional railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna with dedicated trackside/tunnel antennas operating on the 5 GHz band
	· Railway rooftop directional antenna for Wi-Fi bands between 4900 and 5975 MHz · Gain of 12 dBi with -45 degree polarization · Half power beamwidth of 17° (vertical) and 48° (Horizontal) · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130
Item no.	85218165

Technical Data	**Band 1**	**Band 2**
Band name	Wi-Fi	Wi-Fi
Frequency	4900 – 5150 MHz	5150 – 5975 MHz
VSWR	2.0	2.0
Gain (dBi)	12 dBi	12 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	300 Watts (see datasheet for specific bands)
Polarisation	-45 degrees

Mechanical data	
Dimensions (height × width × depth)	TBA
Weight	TBA

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section. DOC-0001216481

Railway

SENCITY Rail Excel

Product name	**SENCITY Rail Excel antenna**
Product ID.	**1356.17.0098**
Description	Directional railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna with dedicated trackside/tunnel antennas operating on the 5 GHz band
	· Railway rooftop directional antenna for Wi-Fi bands between 4900 and 5975 MHz · Gain of 12 dBi with +45 degree polarization · Half power beamwidth of 17° (vertical) and 48° (Horizontal) · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130
Item no.	85218167

Technical Data	Band 1	Band 2
Band name	Wi-Fi	Wi-Fi
Frequency	4900 – 5150 MHz	5150 – 5975 MHz
VSWR	2.0	2.0
Gain (dBi)	12 dBi	12 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	300 Watts (see datasheet for specific bands)
Polarisation	+45 degrees

Mechanical data	
Dimensions (height × width × depth)	TBA
Weight	TBA

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail Excel

Product name	**SENCITY Rail Excel antenna**
Product ID.	**1324.17.0070**
Description	Bi-directional railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna with dedicated trackside/tunnel antennas operating on the 2.4 GHz band
	· Railway rooftop directional antenna for Wi-Fi bands between 2400 and 2650 MHz · Gain of 10 dBi with Vertical polarization · Half power beamwidth of 24° (vertical) and 45° (Horizontal) · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130
Item no.	84027011

Technical Data	Band 1	Band 2	Band 3
Band name	Wi-Fi	Wi-Fi	Wi-Fi
Frequency	2400 – 2484 MHz	2484 – 2550 MHz	2550 – 2600 MHz
VSWR	1.5	1.5	1.5
Gain (dBi)	13.5 dBi	13 dBi	12 dBi

	Band 4	Band 5
Band name	Wi-Fi	Wi-Fi
Frequency	2600 – 2630 MHz	2630 – 2650 MHz
VSWR	1.5	1.5
Gain (dBi)	11 dBi	10 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	350 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	85 × 100 × 510mm
Weight	2.2 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail Excel

Product name	**SENCITY Rail Excel antenna**
Product ID.	**1324.17.0089**
Description	Directional railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna with dedicated trackside/tunnel antennas operating on the 2.4 GHz band
	· Railway rooftop directional antenna for Wi-Fi bands between 2400 and 2650 MHz · Gain of 10 dBi with Vertical polarization · Half power beamwidth of 24° (vertical) and 45° (Horizontal) · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130
Item no.	84035488

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Wi-Fi	Wi-Fi	Wi-Fi	Wi-Fi
Frequency	2400 – 2550 MHz	2550 – 2590 MHz	2590 – 2630 MHz	2630 – 2650 MHz
VSWR	1.5	1.5	1.5	1.5
Gain (dBi)	14.5 dBi	13.5 dBi	12.5 dBi	11.5 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	350 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	85 × 100 × 510mm
Weight	2.2 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Rail Excel

Product name	**SENCITY Rail Excel antenna**
Product ID.	**1324.17.0020**
Description	Directional railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna with dedicated trackside/tunnel antennas operating on the 2.4 GHz band
	· Railway rooftop directional antenna for Wi-Fi bands between 2400 and 2650 MHz · Gain of 10 dBi with -45 degree polarization · Half power beamwidth of 24° (vertical) and 45° (Horizontal) · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130
Item no.	85210719

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Wi-Fi	Wi-Fi	Wi-Fi	Wi-Fi
Frequency	2400 – 2550 MHz	2550 – 2590 MHz	2590 – 2630 MHz	2630 – 2650 MHz
VSWR	2.0	2.0	2.0	2.0
Gain (dBi)	14.5 dBi	13.5 dBi	12.5 dBi	11.5 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	350 Watts (see datasheet for specific bands)
Polarisation	-45 degree

Mechanical data	
Dimensions (height × width × depth)	99.5 × 120 × 510mm
Weight	3.0 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Rail Excel

Product name	**SENCITY Rail Excel antenna**
Product ID.	**1324.17.0021**
Description	Directional railway rooftop antenna for all types of trains. Meets the special requirements of railway. Designed to be used as the onboard antenna with dedicated trackside/tunnel antennas operating on the 2.4 GHz band
	· Railway rooftop directional antenna for Wi-Fi bands between 2400 and 2650 MHz · Gain of 10 dBi with +45 degree polarization · Half power beamwidth of 24° (vertical) and 45° (Horizontal) · Rugged design, meets EN 50155 Railway Standard · Fire retardant according to EN 45545-2 and NFPA-130
Item no.	85210720

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Wi-Fi	Wi-Fi	Wi-Fi	Wi-Fi
Frequency	2400 – 2550 MHz	2550 – 2590 MHz	2590 – 2630 MHz	2630 – 2650 MHz
VSWR	2.0	2.0	2.0	2.0
Gain (dBi)	14.5 dBi	13.5 dBi	12.5 dBi	11.5 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	350 Watts (see datasheet for specific bands)
Polarisation	+45 degree

Mechanical data	
Dimensions (height × width × depth)	99.5 × 120 × 510mm
Weight	3.0 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP6X, IPX7, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Recommended rooftop antennas for 4G / 5G cellular applications

SISO cellular

	Basic type	L1 GNSS
90 mm height	1399.17.0122	1399.99.0120

2×2 cellular

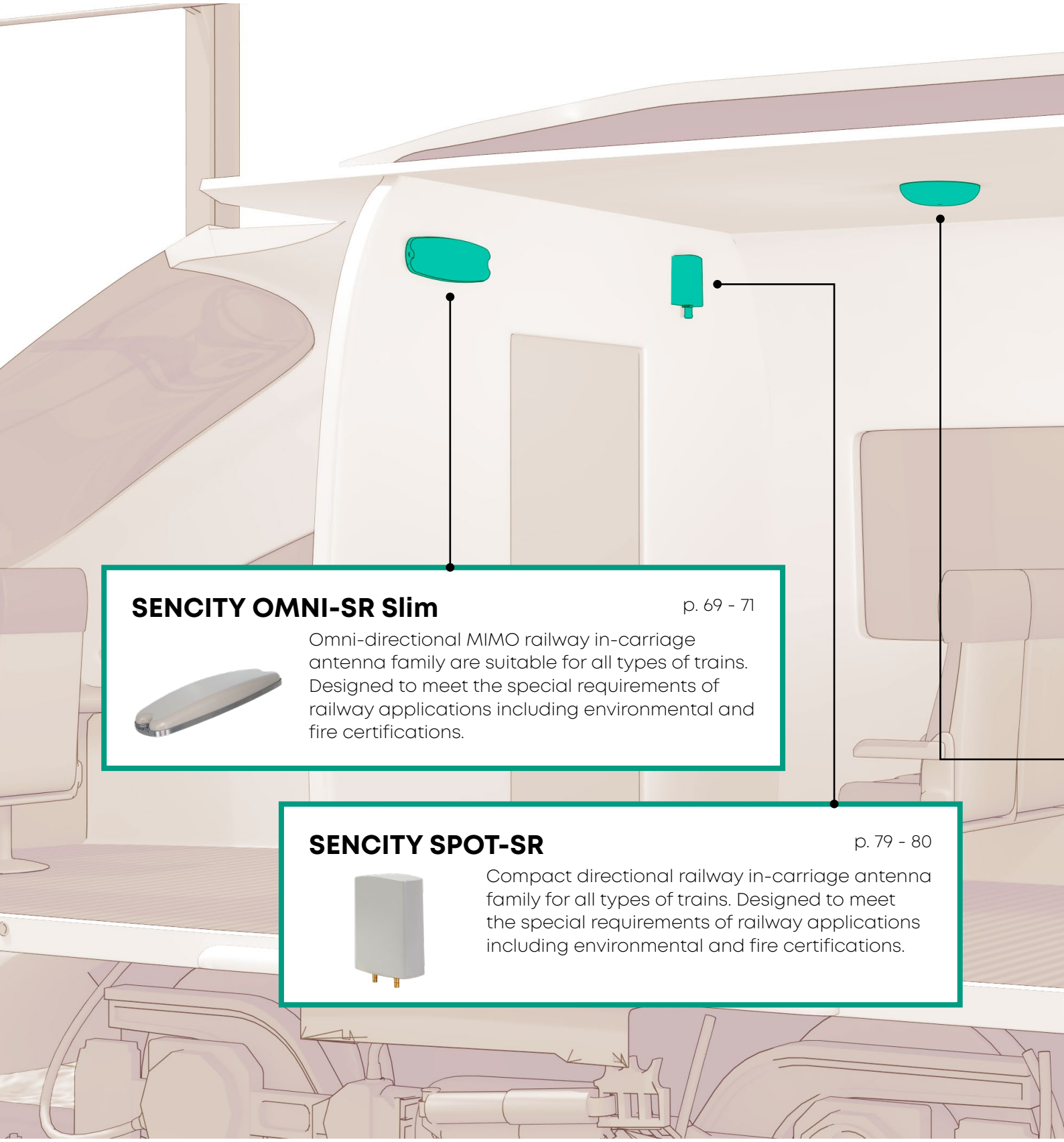
	Basic type	L1 GNSS	L1+L2+L5 GNSS	With 2×2 Wi-Fi L1 GNSS	With 2×2 Wi-Fi L1+L2+L5 GNSS
82 mm height	1399.17.0221	1399.99.0148	1399.99.0152	1399.99.0157	1399.99.0174
40 mm height	1399.17.0145	1399.99.0077	1399.99.0082		
90 mm height	1399.17.0301		1399.99.0301		

4×4 cellular

	Basic type	L1 GNSS	L1+L2+L5 GNSS	With 2×2 Wi-Fi L1 GNSS	With 2×2 Wi-Fi L1+L2+L5 GNSS	With 4×4 Wi-Fi L1 GNSS	With 4×4 Wi-Fi L1+L2+L5 GNSS
84 mm height	1399.17.0268	1399.99.0164	1399.99.0162	1399.99.0153		1399.99.0165	
90 mm height	1399.17.0303		1399.99.0303		1399.99.0304		1399.99.0309

Railway in-carriage antennas

HUBER+SUHNER offers a comprehensive portfolio of antennas for installation inside trains, covering all Wi-Fi bands, as well as cellular services.



SENCITY OMNI-SR Slim

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Omni-directional MIMO railway in-carriage antenna family are suitable for all types of trains. Designed to meet the special requirements of railway applications including environmental and fire certifications.

SENCITY SPOT-SR

p. 79 - 80

Compact directional railway in-carriage antenna family for all types of trains. Designed to meet the special requirements of railway applications including environmental and fire certifications.

SENCITY OMNI-SR Dome

p. 76 - 78

Omni-directional SISO railway in-carriage and trackside antenna family for all types of trains. Designed to meet the special requirements of railway applications including environmental and fire certifications.

SENCITY Rail ACTIVE In-carriage

p.70

Omni-directional MIMO railway in-carriage antenna + access point suitable for all types of trains. Designed to meet the special requirements of railway applications including environmental and fire certifications.

SENCITY OMNI-SR

p. 72 - 75

Omni-directional MIMO railway in-carriage antenna family for all types of trains. Designed to meet the special requirements of railway applications including environmental and fire certifications.

SENCITY Rail ACTIVE In-Carriage

Product name	**SENCITY Rail ACTIVE In-Carriage antenna**
Product ID.	**1499.00.0015**
Description	Omnidirectional railway in-carriage antenna with integrated Wi-Fi access point. Power and data via a single PoE+ cable. Can be used as an all-in-one Access Point in high capacity Railway passenger Wi-Fi systems
	· Contains 2×3×3 MIMO Wi-Fi 5 radios connected to 6 antenna elements · Embedded GNSS antenna with integrated low-noise amplifier · Supports up to 128 clients per radio · Flush wall/ceiling mounting and compact form factor · Certified for railway standards EN 50155, EN 45545-2 and NFPA-130 · Compact form factor allows easy deployment of Wi-Fi systems on trains, no RF cables required
Item no.	85167405

Communication Services		
Supported Bands	Wi-Fi-5	802.11ac Wave 1, 3×3 MU-MIMO (5150 – 5825 MHz) 802.11n Wave 1 (2412 – 2472 MHz)
Note	Integrated Wi-Fi Radio Modules: Compex© WLE900VX	

Electrical data	
Processor	QorIQ T1023 1200 MHz Dual-Core CPU
Memory	1GB RAM / 128MB Flash storage
Operating System	Linux OS OpenWrt
Ethernet	1 × LAN M12 X-code female 300mm pigtail, PoE+ Class 4 (802.3at)

Mechanical data	
Dimensions (mm) (height × width × depth)	99 × 289 × 69 (including mounting points and cooling fins)
Weight (kg)	1.20 (without packaging)

Environmental data	
Environmental conditions	indoor
IP rating	IP5X, IPX4
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA-130, EN50121-3-2, RED – 2014/53/EU, FCC Title 47 CFR Part 15B

Material data	
Radome colour	RAL 9003 (Signal White)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Omni-SR Slim

Product name	**SENCITY Omni-SR 6×6 MIMO antenna**
Product ID.	**1399.35.0020**
Description	Omnidirectional 6×6 MIMO railway in-carriage antenna suitable for all types of trains. Designed to be used as the wireless interface in Wi-Fi communication systems such as Railway passenger Wi-Fi
	· Compact omni-directional MIMO indoor antenna for Wi-Fi applications · Supports 6×6 Wi-Fi MIMO in all Wi-Fi 6E bands · Rugged design, meets EN 50155 railway standard · Fire retardant according to EN 45545-2 and NFPA130 · Contains six RF ports QMA (female) embedded on the rear side
Item no.	85150815

Technical Data	Band 1	Band 2	Band 3
Band name	Wi-Fi	Wi-Fi	Wi-Fi
Frequency	2400 – 2690 MHz	5150 – 5935 MHz	5935 – 7125 MHz
VSWR	2.0	2.0	2.0
Gain	4 dBi	4 dBi	4 dBi
Port Isolation	12 dB	20 dB	20 dB

Electrical data	
Impedance	50 Ohms
Number of Ports	6
Composite power max.	30 – 40 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	31 × 91.8 × 281.8 mm
Weight	0.32 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IPX5
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Omni-SR Slim

Product name	**SENCITY Omni-SR 3×3 MIMO antenna**
Product ID.	**1399.35.0002**
Description	Omnidirectional 3×3 MIMO railway in-carriage antenna suitable for all types of trains. Designed to be used as the wireless interface in Wi-Fi communication systems such as Railway passenger Wi-Fi
	· Compact omni-directional MIMO indoor antenna for Wi-Fi applications · Supports 3×3 Wi-Fi MIMO in all Wi-Fi 6E bands · Rugged design, meets EN 50155 railway standard · Fire retardant according to EN 45545-2 and NFPA130 · Contains three RF ports QMA (female) embedded on the rear side
Item no.	84123697

Technical Data	Band 1	Band 2	Band 3
Band name	Wi-Fi	Wi-Fi	Wi-Fi
Frequency	2400 – 2690 MHz	5150 – 5935 MHz	5935 – 7125 MHz
VSWR	1.5	1.5	1.8
Gain	4 dBi	6 dBi	6 dBi
Port Isolation	20 dB	20 dB	20 dB

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	30 – 40 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	31 × 91.8 × 281.8 mm
Weight	0.32 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IPX5
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Omni-SR Slim

Product name	**SENCITY Omni-SR 3×3 MIMO antenna**
Product ID.	**1399.35.0008**
Description	Omnidirectional 3×3 MIMO railway in-carriage antenna suitable for all types of trains. Designed to be used as the wireless interface in Wi-Fi communication systems such as Railway passenger Wi-Fi
	· Compact omni-directional MIMO indoor antenna for Wi-Fi applications · Supports 3×3 Wi-Fi MIMO in all Wi-Fi 6E bands · Rugged design, meets EN 50155 railway standard · Fire retardant according to EN 45545-2 and NFPA130 · Contains three RF ports QMA (female) embedded on the rear side
Item no.	85089336

Technical Data	Band 1	Band 2	Band 3
Band name	Wi-Fi	Wi-Fi	Wi-Fi
Frequency	2400 – 2690 MHz	5150 – 5935 MHz	5935 – 7125 MHz
VSWR	1.5	1.5	1.8
Gain	4 dBi	6 dBi	6 dBi
Port Isolation	20 dB	20 dB	20 dB

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	30 – 40 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	31 × 91.8 × 281.8 mm
Weight	0.32 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IPX5
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 9010 (white)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Omni-SR

Product name	**SENCITY Omni-SR 4×4 MIMO antenna**
Product ID.	**1399.17.0240**
Description	Omnidirectional 4×4 MIMO railway in-carriage antenna suitable for all types of trains. Designed to be used as the wireless interface in Wi-Fi or Cellular Mid-Band communication systems
	· Supports 4×4 WiFi MIMO in Wi-Fi 4 / Wi-Fi 6 bands & 4×4 Cellular MIMO in 2.3 / 2.6 / 3.5 GHz bands · Rugged design, meets EN 50155 railway standard · Fire retardant according to EN 45545-2 and NFPA-130 · Single hole mounting · Cable length 0.5m
Item no.	85078396

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Wi-Fi	Wi-Fi	Cellular / Wi-Fi	Wi-Fi
Frequency	2300 – 2500 MHz	2500 – 2690 MHz	3400 – 3800 MHz	4900 – 5975 MHz
VSWR	1.7	1.8	1.8	1.5
Gain	3.5 dBi	3.5 dBi	5 dBi	4.5 dBi
Port Isolation	15 dB	16 dB	25 dB	30 dB

Electrical data	
Impedance	50 Ohms
Number of Ports	4
Composite power max.	10 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × diameter)	33.2 × 145
Weight	0.9 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IP6X, IPX4, IPX8, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Omni-SR

Product name	**SENCITY Omni-SR 4×4 MIMO antenna**
Product ID.	**1399.17.0246**
Description	Omnidirectional 4×4 MIMO railway in-carriage antenna suitable for all types of trains. Designed to be used as the wireless interface in Wi-Fi or Cellular Mid-Band communication systems
	· Supports 4×4 WiFi MIMO in Wi-Fi 4 / Wi-Fi 6 bands & 4×4 Cellular MIMO in 2.3 / 2.6 / 3.5 GHz bands · Rugged design, meets EN 50155 railway standard · Fire retardant according to EN 45545-2 and NFPA-130 · Single hole mounting · Cable length 1.5m
Item no.	85087896

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Wi-Fi	Wi-Fi	Cellular / Wi-Fi	Wi-Fi
Frequency	2300 – 2500 MHz	2500 – 2690 MHz	3400 – 3800 MHz	4900 – 5975 MHz
VSWR	1.7	1.8	1.8	1.5
Gain	1 dBi	1.5 dBi	3 dBi	3.5 dBi
Port Isolation	15 dB	15 dB	30 dB	35 dB

Electrical data	
Impedance	50 Ohms
Number of Ports	4
Composite power max.	10 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × diameter)	33.2 × 145
Weight	0.92 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IP6X, IPX4, IPX8, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Omni-SR

Product name	**SENCITY Omni-SR 4×4 MIMO antenna**
Product ID.	**1399.35.0010**
Description	Omnidirectional 4×4 MIMO railway in-carriage antenna suitable for all types of trains. Designed to be used as the wireless interface in Wi-Fi or Cellular Mid-Band communication systems such as Railway in-carriage
	· Supports 4×4 WiFi MIMO in Wi-Fi 4 / Wi-Fi 6 bands & 4×4 Cellular MIMO in 2.3 / 2.6 / 3.5 GHz bands · Rugged design, meets EN 50155 railway standard · Fire retardant according to EN 45545-2 and NFPA-130 · Single hole mounting · Cable length 1.5m
Item no.	85097487

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Wi-Fi	Wi-Fi	Cellular / Wi-Fi	Wi-Fi
Frequency	2300 – 2500 MHz	2500 – 2690 MHz	3400 – 3800 MHz	4900 – 5975 MHz
VSWR	1.7	1.8	2.0	1.5
Gain	1 dBi	1.5 dBi	3 dBi	3.5 dBi
Port Isolation	15 dB	15 dB	30 dB	35 dB

Electrical data	
Impedance	50 Ohms
Number of Ports	4
Composite power max.	10 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × diameter)	33.2 × 145
Weight	0.64 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IP6X, IPX4, IPX8, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Omni-SR

Product name	**SENCITY Omni-SR 4×4 MIMO antenna**
Product ID.	**1399.17.0264**
Description	Omnidirectional 2×2 MIMO railway in-carriage antenna suitable for all types of trains. Designed to be used as the wireless interface in Wi-Fi or Cellular communication systems such as Railway in-carriage
	· Supports 2×2 WiFi MIMO in all Wi-Fi 6E bands or 2×2 Cellular MIMO in 800 / 900 /1800 / 2100 / 2600 MHz bands · Rugged design, meets EN 50155 railway standard · Fire retardant according to EN 45545-2 and NFPA-130 · Single hole mounting · Cable length 0.5m
Item no.	85127817

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	790 – 900 MHz	900 – 960 MHz	1710 – 1750 MHz
VSWR	2.0	2.3	2.3
Gain	4 dBi	4 dBi	4 dBi
Port Isolation	15 dB	15 dB	30 dB
	Band 4	**Band 5**	**Band 6**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	1750 – 2700 MHz	4900 – 6425 MHz	6425 – 7125 MHz
VSWR	1.8	1.5	2.2
Gain	6 dBi	6 dBi	6 dBi
Port Isolation	35 dB	15 dB	15 dB

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	10 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × diameter)	33.2 × 145
Weight	0.9 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IP6X, IPX4, IPX8, IPX9
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway

SENCITY Omni-SR Dome

Product name	**SENCITY Omni-SR Dome antenna**
Product ID.	**1399.17.0106**
Description	Omnidirectional SISO railway in-carriage antenna suitable for all types of trains. Designed to be used as the wireless interface in in-carriage data communication systems
	· Compact Omnidirectional in-carriage antenna for all Wi-Fi 6E bands (2.4 GHz / 5GHz / 6 GHz) · Rugged design, meets EN 50155 Railway Standard and IP65 rating · Fire retardant according to EN 45545-2 and NFPA-130 · Protection against lightning · Integrated N female interface
Item no.	84039156

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	2400 – 2500 MHz	2500 – 2700 MHz	3400 – 3800 MHz
VSWR	1.8	2.0	2.0
Gain	6 dBi	6 dBi	6 dBi
	Band 4	**Band 5**	
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	
Frequency	4900 – 5925 MHz	5925 – 7125 MHz	
VSWR	1.8	1.9	
Gain	8 dBi	8 dBi	

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	300 – 350 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × diameter)	43 × 86 mm
Weight	0.3 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IP6X, IPX5
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7035 (light grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

SENCITY Omni-SR Dome

Product name	**SENCITY Omni-SR Dome antenna**
Product ID.	**1399.17.0108**
Description	Omnidirectional SISO railway outdoor antenna for all types of trains. Designed to be used as the wireless interface in Wi-Fi or C-Band communication systems.
	· Compact Omnidirectional outdoor antenna for Wi-Fi 6E bands (2.4 GHz / 5GHz / 6 GHz) & industrial 5G (3.5 GHz) · Rugged design, meets EN 50155 Railway Standard and IP68 rating · Fire retardant according to EN 45545-2 and NFPA-130 · Protection against lightning · Integrated N female interface
Item no.	84040934

Technical Data	Band 1	Band 2	Band 3
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	2400 – 2500 MHz	2500 – 2700 MHz	3400 – 3800 MHz
VSWR	1.8	2.0	2.0
Gain	6 dBi	6 dBi	6 dBi
	Band 4	**Band 5**	
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	
Frequency	4900 – 5925 MHz	5925 – 7125 MHz	
VSWR	1.8	1.9	
Gain	8 dBi	8 dBi	

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	300 – 350 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × diameter)	50.6 × 86 mm
Weight	0.3 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IP6X, IPX7, IPX8
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Back plate / base plate material	Stainless Steel

For more detailed information, please visit our website "Products" section.

SENCITY Omni-SR Dome

Product name	**SENCITY Omni-SR Dome antenna**
Product ID.	**1399.17.0111**
Description	Omnidirectional SISO railway outdoor antenna for all types of trains. Designed to be used as the wireless interface in Wi-Fi or C-Band communication systems.
	· Compact Omnidirectional outdoor antenna for Wi-Fi 6E bands (2.4 GHz / 5GHz / 6 GHz) & industrial 5G (3.5 GHz) · Rugged design, meets EN 50155 Railway Standard and IP68 rating · Fire retardant according to EN 45545-2 and NFPA-130 · Protection against lightning · Integrated N female interface
Item no.	84043908

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	Cellular / Wi-Fi
Frequency	2400 – 2500 MHz	2500 – 2700 MHz	3400 – 3800 MHz
VSWR	1.8	2.0	2.0
Gain	6 dBi	6 dBi	6 dBi
	Band 4	**Band 5**	
Band name	Cellular / Wi-Fi	Cellular / Wi-Fi	
Frequency	4900 – 5925 MHz	5925 – 7125 MHz	
VSWR	1.8	1.9	
Gain	8 dBi	8 dBi	

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	300 – 350 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × diameter)	50.6 × 86 mm
Weight	0.3 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IP6X, IPX7, IPX8
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	ASA (acrylic ester-styrene-acrylonitrile)
Back plate / base plate material	Stainless Steel

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-SR

Product name	**SENCITY SPOT-SR 2×2 Wi-Fi MIMO antenna**
Product ID.	**1356.17.0089**
Description	Compact directional high gain Wi-Fi antenna designed to meet harsh industrial requirements. Designed to be used as the wireless interface for Wi-Fi 5 GHz directional systems such as Railway Trackside
	· Compact Industrial antenna for Wi-Fi bands between 4900 and 5935 MHz · Gain of 14 dBi with dual slant +/-45° polarization · Half power beamwidth of 30° (vertical) and 40° (Horizontal) · Wall and Mast mounting brackets included · Integrated N female interfaces
Item no.	85174126

Technical Data	Band 1	Band 2	Band 3
Band name	Wi-Fi	Wi-Fi	Wi-Fi
Frequency	4900 – 5150 MHz	5150 – 5470 MHz	5470 – 5935 MHz
VSWR	2.0	1.6	1.6
Gain	11.5 dBi	12.5 dBi	13 dBi
Isolation	19	20	21

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	30 Watts
Polarisation	Dual slant (-45 degrees and + 45 degrees)

Mechanical data	
Dimensions (height × width × depth)	101 × 81 × 36mm
Weight	0.11 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IP6X, IPX6, IPX7
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-SR

Product name	**SENCITY SPOT-SR 2×2 Wi-Fi MIMO antenna**
Product ID.	**1356.35.0089**
Description	Compact directional high gain Wi-Fi antenna designed to meet harsh industrial requirements. Designed to be used as the wireless interface for Wi-Fi 5 GHz directional systems such as Railway Trackside
	· Compact Industrial antenna for Wi-Fi bands between 4900 and 5935 MHz · Gain of 14 dBi with dual slant +/-45° polarization · Half power beamwidth of 30° (vertical) and 40° (Horizontal) · Wall and Mast mounting brackets included · Integrated QMA female interface
Item no.	85150814

Technical Data	Band 1	Band 2	Band 3
Band name	Wi-Fi	Wi-Fi	Wi-Fi
Frequency	4900 – 5150 MHz	5150 – 5470 MHz	5470 – 5935 MHz
VSWR	2.0	1.6	1.6
Gain	11.5 dBi	12.5 dBi	13 dBi
Isolation	19	20	21

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	30 Watts
Polarisation	Dual slant (-45 degrees and + 45 degrees)

Mechanical data	
Dimensions (height × width × depth)	101 × 81 × 36mm
Weight	0.11 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IP6X, IPX6, IPX7
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)

For more detailed information, please visit our website "Products" section.

Railway trackside antennas

HUBER+SUHNER offers a comprehensive portfolio of antennas for trackside installation, covering all Wi-Fi bands and suitable for use in CBTC systems.

SENCITY SPOT-S

p. 86 - 92

Compact directional railway trackside antenna family for all types of trains. Designed to meet the special requirements of railway applications including environmental and fire certifications.

SENCITY SPOT-M

p. 93 - 97

Directional high gain (14 dBi) Wi-Fi band antenna for indoor and outdoor applications.

SENCITY SPOT-L

p. 98 - 102

Directional high gain (23 dBi) Wi-Fi band antenna for indoor and outdoor applications.

SENCITY SPOT-M YAGI

p. 84 - 85

Directional high gain (19 dBi) Wi-Fi antenna for railway trackside and tunnel applications.

SENCITY SPOT-M Yagi

Product name	**SENCITY SPOT-M Yagi antenna**
Product ID.	**1324.17.0113**
Description	Directional high gain Wi-Fi antenna designed to meet harsh industrial requirements. Designed to be used as the wireless interface for Wi-Fi 2.4 GHz directional systems such as Railway Trackside
	· Directional high gain antenna for Wi-Fi or Cellular bands between 2400 and 2484 MHz · Gain of 14 dBi with Vertical polarization · Half power beamwidth of 30° (vertical) and 30° (Horizontal) · Wall and Mast mounting brackets included · Integrated N female interface
Item no.	85023217

Technical Data	**Band 1**
Band name	Wi-Fi
Frequency	2400 – 2484 MHz
VSWR	1.7
Gain	14 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	50 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	80 × 420 × 80 mm
Weight	0.85 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IP6X, IPX5
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-M Yagi

Product name	**SENCITY SPOT-M Yagi antenna**
Product ID.	**1324.17.0116**
Description	Directional high gain Wi-Fi antenna designed to meet harsh industrial requirements. Designed to be used as the wireless interface for Wi-Fi 2.4 GHz directional systems such as Railway Trackside
	· Directional high gain antenna for Wi-Fi or Cellular bands between 2400 and 2484 MHz · Gain of 14 dBi with Vertical polarization · Half power beamwidth of 30° (vertical) and 30° (Horizontal) · Wall and Mast mounting brackets included · Integrated N male interface
Item no.	85070104

Technical Data	**Band 1**
Band name	Wi-Fi
Frequency	2400 – 2484 MHz
VSWR	1.7
Gain	14 dBi

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	50 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	80 × 420 × 80 mm
Weight	0.85 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IP6X, IPX5
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-S

Product name	**SENCITY SPOT-S, SISO Wi-Fi Dual-band Antenna**
Product ID.	**1399.17.0210**
Description	Compact directional Wi-Fi 4/Wi-Fi 6 SISO antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 2.4 GHz and Wi-Fi 5 GHz systems.
	· Compact Industrial antenna for Wi-Fi bands between 2400 MHz till 2500 MHz and 5150 MHz till 5935 MHz · Gain of 9 dBi with Vertical Polarisation · Half power beamwidth of 75° (vertical) and 65° (Horizontal) · For both indoor and outdoor mounting · Rugged design with N female interface · Down -Side tilt backet item 9091.99.0238
Item no.	84087864

Technical Data	Band 1	Band 2
Band name	Wi-Fi	Wi-Fi
Frequency (MHz)	2400 – 2500	5150 – 5935
VSWR	2	2
Gain (dBi)	9	9
Port Isolation (dB)	25	30

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	30 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	101 × 81 × 36 mm
Weight	0.11 kg
Connector	N, jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP 66 and IP 67
RoHS 2011/65/EU	compliant
Certifications	EN 45545-2 and NFPA130, BS6853, DIN 5510-2, EN 50155 and EN 60068

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-S

Product name	**SENCITY SPOT-S, SISO Wi-Fi Antenna**
Product ID.	**1324.19.0057**
Description	Compact directional Wi-Fi 1/Wi-Fi 3 antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 2.4 GHz directional systems such as Railway Trackside.
	· Compact Industrial antenna for Wi-Fi bands between 2400 and 2500 MHz · Gain of 8.5 dBi with Vertical polarisation · Half power beamwidth of 75° (vertical) and 75° (Horizontal) · Wall and Mast mounting brackets included · Integrated SMA female interface · Down and Side tilt bracket item 9091.99.0238
Item no.	84059620

Technical Data	**Band 1**
Band name	Wi-Fi
Frequency (MHz)	2400 – 2500
VSWR	1.5
Gain (dBi)	8.5

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	30 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	101 × 81 × 36 mm
Weight	0.11 kg
Connector	SMA, jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP 66 and IP 67
RoHS 2011/65/EU	compliant
Certifications	EN 45545-2 and NFPA130, EN 50155 and EN 60068

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-S

Product name	**SENCITY SPOT-S Antenna**
Product ID.	**1318.17.0015**
Description	Compact directional SISO Cellular and DECT antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Cellular and DECT bands between 1710 and 1980 MHz.
	· Compact Industrial antenna for Cellular and DECT bands between 1710 and 1980 MHz · Rugged design, meets EN 50155 and EN50125-3 Railway Standards · Fire retardant according to EN 45545-2 and NFPA-130 · For both indoor and outdoor mounting · Gain of 8 dBi and half power beamwidth of 72° (vertical) and 90° (Horizontal)
Item no.	85088775

Technical Data	Band 1	Band 2	Band 3
Band name	Cellular	Cellular	Cellular
Frequency (MHz)	1710 – 1755	1755 – 1910	1910 – 1980
VSWR	2	1.5	2
Gain (dBi)	6.5	8	7

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	50 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	101 × 81 × 36 mm
Weight	0.11 kg
Connector	N, jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP 66 and IP 67
RoHS 2011/65/EU	compliant
Certifications	EN 45545-2, BS 6853, DIN 5510-2, EN 50155, EN 50125-3 and EN 60068

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-S

Product name	**SENCITY SPOT-S 3×3 Wi-Fi MIMO Antenna**
Product ID.	**1356.17.0078**
Description	Compact directional Wi-Fi 2/Wi-Fi 5 MIMO 3×3 antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 5 GHz systems.
	· Compact Industrial antenna for Wi-Fi bands between 5150 MHz and 5935 MHz · Gain of 8 dBi with dual slant +/-45° polarisation and vertical polarisation · Half power beamwidth of 65° (vertical) and 65° (Horizontal) · For both indoor and outdoor mounting · Rugged design with N male interface · Down and Side tilt bracket item 9091.99.0238
Item no.	84076862

Technical Data	**Band 1**
Band name	Wi-Fi
Frequency (MHz)	5150 – 5935
VSWR	1.7
Gain (dBi)	8
Port Isolation (dB)	20

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	30 Watts
Polarisation	-45° slant and vertical

Mechanical data	
Dimensions (height × width × depth)	101 × 81 × 36 mm
Weight	0.27 kg
Connector	N, plug (male)

Environmental data	
Environmental conditions	Indoor/outdoor
IP rating	IP 66 and IP 67
RoHS 2011/65/EU	compliant
Certifications	UL 94-V0

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-S

Product name	**SENCITY SPOT-S 2×2 Wi-Fi Antenna**
Product ID.	**1356.17.0076**
Description	Compact directional Wi-Fi 2/Wi-Fi 5 MIMO 2×2 antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 5 GHz systems.
	· Compact Industrial antenna for Wi-Fi bands between 5150 MHz and 5935 MHz · Gain of 9 dBi with dual slant +/-45° polarisation · Half power beamwidth of 60° (vertical) and 70° (Horizontal) · For both indoor and outdoor mounting · Rugged design with N female interface · Down and Side tilt Bracket item 9091.99.0238
Item no.	84078980

Technical Data	**Band 1**
Band name	Wi-Fi
Frequency (MHz)	5150 – 5935
VSWR	2
Gain (dBi)	9
Port Isolation (dB)	20

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	30 Watts (see datasheet for specific bands)
Polarisation	-45° slant and +45° slant

Mechanical data	
Dimensions (height × width × depth)	101 × 81 × 36 mm
Weight	0.11 kg
Connector	N, jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP 66/67
RoHS 2011/65/EU	compliant
Certifications	EN 45545-2 and NFPA130, BS 6853, DIN 5510-2 and EN50155

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-S

Product name	**SENCITY SPOT-S 2×2 Wi-Fi MIMO Antenna**
Product ID.	**1324.19.0056**
Description	Compact directional 2×2 MIMO Wi-Fi 1/Wi-Fi 3 antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 2.4 GHz directional systems such as Railway trackside.
	· Compact Industrial antenna for Wi-Fi bands between 2400 and 2485 MHz · Gain of 8 dBi with dual slant +/-45° polarisation · Half power beamwidth of 70° (vertical) and 75° (Horizontal) · Wall and Mast mounting brackets included · Integrated SMA female interfaces
Item no.	84059618

Technical Data	**Band 1**
Band name	Wi-Fi
Frequency (MHz)	2400 – 2485
VSWR	1.5
Gain (dBi)	8
Port Isolation (dB)	25

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	50 Watts
Polarisation	-45° slant and +45° slant

Mechanical data	
Dimensions (height × width × depth)	101 × 81 × 36 mm
Weight	0.11 kg
Connector	SMA, jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP 66 / IP 67 (IEC 60529)
RoHS 2011/65/EU	Compliant
Certifications	EN 45545-2 (2013) HL3 and NFPA130 (2013), also BS 6853 and DIN 5510-2, EN 50155 and EN 60068

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-S

Product name	**SENCITY SPOT-S 2×2 Wi-Fi 6E MIMO Antenna**
Product ID.	**1357.17.0001**
Description	Compact directional Wi-Fi 6E antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 6E systems
	· Compact industrial antenna for Wi-Fi bands between 5000 MHz and 7125 MHz. · Gain of 8 dBi with dual slant +/-45° polarization. · Half power beamwidth of 65° (vertical) and 70° (horizontal) · For both indoor and outdoor mounting · Rugged design with N female interface · Down and Side tilt bracket item 9091.99.0238
Item no.	85185019

Technical Data	Band 1	Band 2
Band name	Wi-Fi	Wi-Fi
Frequency (MHz)	5000 – 5500	5500 – 7125
VSWR	2	2
Gain (dBi)	8	8
Port Isolation (dB)	20	20

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	30 Watts
Polarisation	-45° slant and +45° slant

Mechanical data	
Dimensions (height × width × depth)	101 × 81 × 36 mm
Weight	0.11 kg
Connector	N, jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP 66 / IP 67
RoHS 2011/65/EU	compliant
Certifications	EN 45545-2 (2013) HL3 and NFPA130 (2013), also BS 6853 and DIN 5510-2, EN 50155

Material data	
Radome colour	RAL 7044 (grey)
Radome material	PC (Polycarbonate)

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-M

Product name	**SENCITY SPOT-M SISO Wi-Fi Antenna**
Product ID.	**1356.17.0024**
Description	Directional high gain Wi-Fi SISO antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 2/Wi-Fi 5 systems.
	· Directional high gain antenna for Wi-Fi bands between 5150 and 5950 MHz · Gain of 19 dBi with Vertical Polarisation · Half power beamwidth of 18° (vertical) and 18° (Horizontal) · Integrated N female interfaces · Down & Side tilt bracket item 9091.99.0201
Item no.	84018716

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Wi-Fi	Wi-Fi	Wi-Fi
Frequency (MHz)	5150 – 5250	5250 – 5350	5350 – 5725
VSWR	1.9	1.9	1.9
Gain (dBi)	18	19	18.5
Port Isolation (dB)			

	Band 4	**Band 5**
Band name	Wi-Fi	Wi-Fi
Frequency (MHz)	5725 – 5875	5875 – 5950
SWR	1.9	
Gain (dBi)	18	
Port Isolation (dB)		

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	6 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	190 × 190 × 30 mm
Weight	0.7 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP67
RoHS 2011/65/EU	compliant
Certifications	EN 60068

Material data	
Radome colour	RAL 9002 (grey-white)
Radome material	Plastic
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-M

Product name	**SENCITY SPOT-M SISO Wi-Fi Antenna**
Product ID.	**1324.17.0051**
Description	Directional high gain Wi-Fi antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 1/Wi-Fi 3 directional systems.
	· Directional high gain antenna for Wi-Fi bands between 2300 and 2700 MHz · Gain of 14 dBi with Vertical polarisation · Half power beamwidth of 32° (vertical) and 32° (Horizontal) · Integrated N female interface · Down and side tilt bracket item 9091.99.0201
Item no.	84018384

Technical Data	Band 1	Band 2	Band 3
Band name	Wi-Fi	Wi-Fi	Wi-Fi
Frequency (MHz)	2300 – 2400	2400 – 2500	2500 – 2700
VSWR	1.9	1.9	1.9
Gain (dBi)	14	14.5	15

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	6 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	190 × 190 × 30 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP67
RoHS 2011/65/EU	compliant
Certifications	EN 60068

Material data	
Radome colour	RAL 9002 (grey-white)
Radome material	Plastic
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-M

Product name	**SENCITY SPOT-M 2×2 Wi-Fi MIMO Antenna**
Product ID.	**1356.17.0093**
Description	Directional high gain 2×2 MIMO Wi-Fi antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 2/Wi-Fi 5 directional systems.
	· Directional high gain antenna for Wi-Fi bands between 5150 and 5875 MHz · Gain of 19 dBi with Vertical and Horizontal Polarisation (or Dual Slant depending on mounting orientation) · Half power beamwidth of 17° (vertical) and 17° (Horizontal) · Integrated N female interfaces · Down and side tilt bracket item 9091.99.0201
Item no.	85094773

Technical Data	Band 1	Band 2
Band name	Wi-Fi	Wi-Fi
Frequency (MHz)	5150 – 5250	5725 – 5875
VSWR	1.7	1.7
Gain (dBi)	19	19.5
Port Isolation (dB)	30	30

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	6 Watts
Polarisation	Linear (HOR and VER)

Mechanical data	
Dimensions (height × width × depth)	190 × 190 × 30 mm
Weight	0.7 kg

Environmental data	
Environmental conditions	Indoor/outdoor
IP rating	IP67
RoHS 2011/65/EU	compliant
Certifications	EN 60068

Material data	
Radome colour	RAL 9002 (grey-white)
Radome material	Plastic
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-M

Product name	**SENCITY SPOT-M 2×2 Wi-Fi MIMO Antenna**
Product ID.	**1356.17.0023**
Description	Directional high gain Wi-Fi 2×2 MIMO antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 2/Wi-Fi 5 directional systems.
	· Directional high gain antenna for Wi-Fi bands between 5150 and 5875 MHz · Gain of 19 dBi with Vertical and Horizontal Polarisation (or Dual Slant depending on mounting orientation) · Half power beamwidth of 17° (vertical) and 17° (Horizontal) · Integrated N female interfaces · Down and side tilt bracket item 9091.99.0201
Item no.	84018715

Technical Data	**Band 1**
Band name	Wi-Fi
Frequency (MHz)	5150 – 5875
VSWR	1.7
Gain (dBi)	19
Port Isolation (dB)	30

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	6 Watts
Polarisation	Vertical and horizontal

Mechanical data	
Dimensions (height × width × depth)	190 × 190 × 30 mm
Weight	0.7 kg

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP67
RoHS 2011/65/EU	compliant
Certifications	EN 60068

Material data	
Radome colour	RAL 9002 (grey-white)
Radome material	Polycarbonate (PC)
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-M

Product name	**SENCITY SPOT-M 2×2 Wi-Fi MIMO Antenna**
Product ID.	**1324.17.0117**
Description	Directional high gain 2×2 MIMO Wi-Fi antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 1/Wi-Fi 3 directional systems.
	· Directional high gain antenna for Wi-Fi bands between 2300 and 2700 MHz · Gain of 14 dBi with Vertical polarisation · Half power beamwidth of 35° (vertical) and 35° (Horizontal) · Integrated N female interfaces · Down and side tilt bracket item 9091.99.0201
Item no.	85104342

Technical Data	**Band 1**
Band name	Wi-Fi
Frequency (MHz)	2300 – 2700
VSWR	2
Gain (dBi)	14
Port Isolation (dB)	20

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	6 Watts
Polarisation	Vertical and horizontal

Mechanical data	
Dimensions (height × width × depth)	190 × 190 × 30 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	Indoor/outdoor
IP rating	IP67
RoHS 2011/65/EU	compliant
Certifications	UL 94-HB

Material data	
Radome colour	RAL 9002 (grey-white)
Radome material	Plastic
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-L

Product name	**SENCITY SPOT-L SISO Wi-Fi antenna**
Product ID.	**1354.17.0001**
Description	Directional high gain Wi-Fi SISO antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 2/Wi-Fi 5 directional systems.
	· Directional high gain antenna for Wi-Fi or Cellular bands between 4900 MHz and 5875 MHz · Gain of 22 dBi with Vertical polarisation · Half power beamwidth of 9° (vertical) and 9° (Horizontal) · Integrated N female interface · Down and side tilt bracket item 9091.99.0183
Item no.	85017309

Technical Data	Band 1	Band 2
Band name	Wi-Fi	Wi-Fi
Frequency (MHz)	4900 – 5150	5150 – 5875
VSWR	1.9	1.7
Gain (dBi)	22	23

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	6 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	305 × 305 × 15 mm
Weight	1.2 kg

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP67
RoHS 2011/65/EU	compliant
Certifications	EN 60068

Material data	
Radome colour	RAL 9002 (grey-white)
Radome material	Plastic
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-L

Product name	**SENCITY SPOT-L MIMO 3×3 Wi-Fi antenna**
Product ID.	**1356.17.0090**
Description	Directional high gain Wi-Fi MIMO 3×3 antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 2/Wi-Fi 5 directional systems.
	· Directional high gain antenna for Wi-Fi bands between 4900 MHz and 6100 MHz · Gain of 16 dBi with Vertical/Horizontal polarisation · Half power beamwidth of 20° (vertical) and 20° (Horizontal) · Integrated N female interface · Down and side tilt bracket item 9091.99.0201
Item no.	85004909

Technical Data	Band 1	Band 2	Band 3
Band name	Wi-Fi	Wi-Fi	Wi-Fi
Frequency (MHz)	4900 – 5150	5150 – 6000	6000 – 6100
VSWR	1.8	1.8	1.8
Gain (dBi)	17	18	16
Port Isolation (dB)	35	35	30

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	6 Watts
Polarisation	-45° slant, vertical slant and +45° slant

Mechanical data	
Dimensions (height × width × depth)	305 × 305 × 15 mm
Weight	1.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP67
RoHS 2011/65/EU	compliant
Certifications	EN 60068

Material data	
Radome colour	RAL 9002 (grey-white)
Radome material	Plastic
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-L

Product name	**SENCITY SPOT-L Wi-Fi SISO antenna**
Product ID.	**1324.17.0112**
Description	Directional high gain Wi-Fi antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 1/Wi-Fi 3 directional systems.
	· Directional high gain antenna for Wi-Fi bands between 2300 and 2700 MHz · Gain of 15.5 to 18 dBi with Vertical polarisation · Half power beamwidth of 20° (vertical) and 20° (Horizontal) · Integrated N female interface · Down and side tilt bracket item 9091.99.0201
Item no.	85017308

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Wi-Fi	Wi-Fi	Wi-Fi	Wi-Fi
Frequency (MHz)	2300 – 2400	2400 – 2500	2500 – 2600	2600 – 2700
VSWR	1.7	1.7	1.7	1.7
Gain (dBi)	15.5	17	17.5	18

Electrical data	
Impedance	50 Ohms
Number of Ports	
Composite power max.	6 Watts (see datasheet for specific bands)
Polarisation	Vertical

Mechanical data	
Dimensions (height × width × depth)	305 × 305 × 15 mm
Weight	1.2 kg

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP67
RoHS 2011/65/EU	compliant
Certifications	EN 60068

Material data	
Radome colour	RAL 9002 (grey-white)
Radome material	Plastic
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-L

Product name	**SENCITY SPOT-L 2×2 Wi-Fi MIMO Antenna**
Product ID.	**1355.17.0001**
Description	Directional high gain Wi-Fi MIMO 2×2 antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 2/Wi-Fi 5 directional systems.
	· Directional high gain antenna for Wi-Fi bands between 4900 MHz and 6100 MHz · Gain of 22 dBi with Vertical/Horizontal polarisation · Half power beamwidth of 10° (vertical) and 10° (Horizontal) · Integrated N female interface · Down and side tilt bracket item 9091.99.0201
Item no.	85017310

Technical Data	Band 1	Band 2
Band name	Wi-Fi	Wi-Fi
Frequency (MHz)	4900 – 5150	5150 – 6100
VSWR	2	2
Gain (dBi)	22	23
Port Isolation (dB)	35	35

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	6 Watts
Polarisation	Vertical and horizontal

Mechanical data	
Dimensions (height × width × depth)	305 × 305 × 15 mm
Weight	1.2 kg

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP67
RoHS 2011/65/EU	compliant
Certifications	EN 60068

Material data	
Radome colour	RAL 9002 (grey-white)
Radome material	Plastic
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY SPOT-L

Product name	**SENCITY SPOT-L 2×2 Wi-Fi MIMO Antenna**
Product ID.	**1324.17.0106**
Description	Directional high gain 2×2 MIMO Wi- antenna designed to meet harsh industrial requirements. Can be used as the wireless interface for Wi-Fi 1/Wi-Fi 3 directional systems.
	· Directional high gain antenna for Wi-Fi bands between 2300 and 2700 MHz · Gain of 17 dBi with dual slant +/-45° polarisation · Half power beamwidth of 21° (vertical) and 21° (Horizontal) · Integrated N female interfaces · Down and side tilt bracket item 9091.99.0201
Item no.	85001949

Technical Data	Band 1	Band 2
Band name	Wi-Fi	Wi-Fi
Frequency (MHz)	2300 – 2400	2400 – 2700
VSWR	1.8	1.8
Gain (dBi)	17.5	18
Port Isolation (dB)	18	18

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	6 Watts
Polarisation	-45° slant and +45° slant

Mechanical data	
Dimensions (height × width × depth)	305 × 305 × 15 mm
Weight	1.2 kg

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP67
RoHS 2011/65/EU	compliant
Certifications	EN 60068

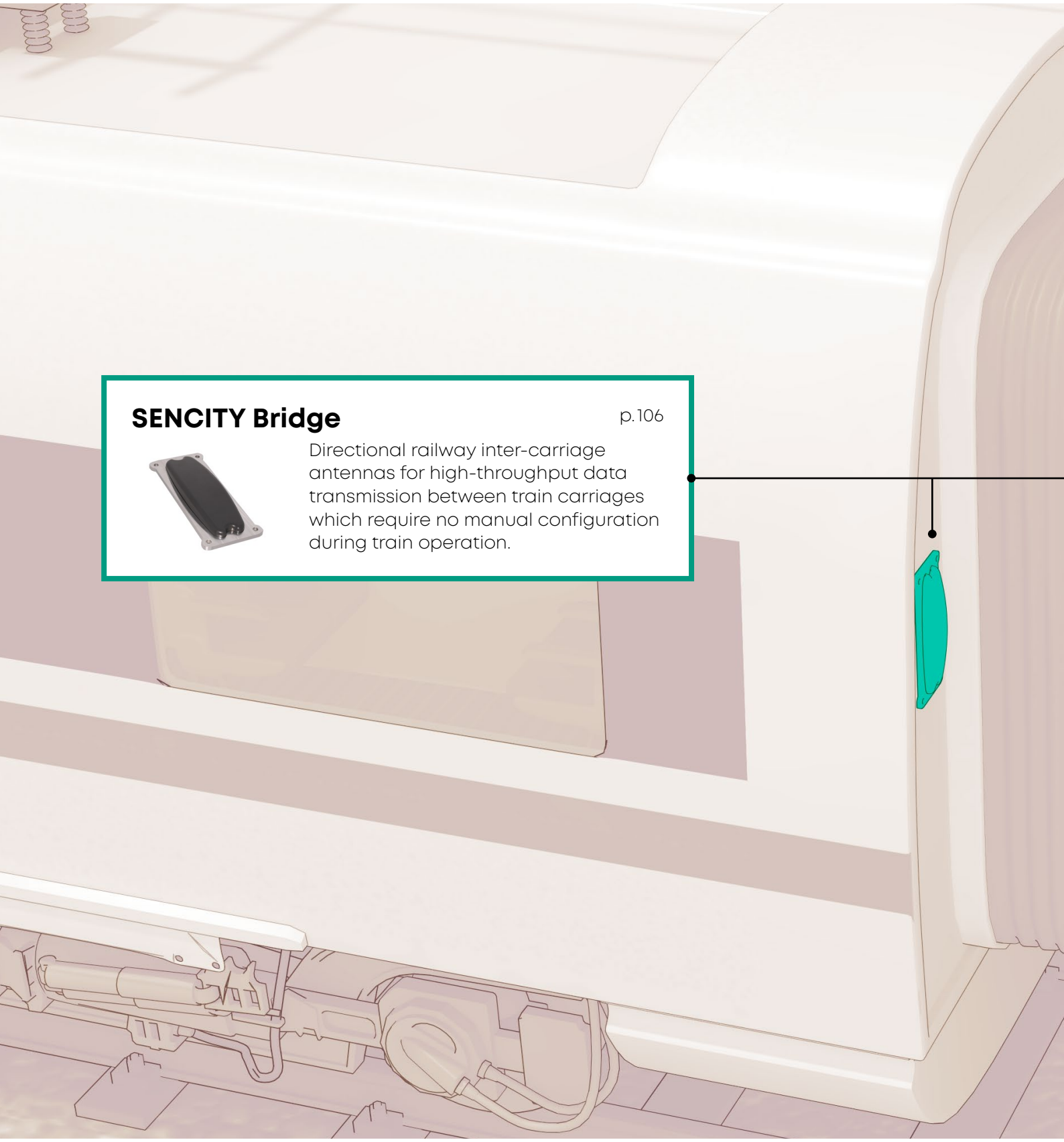
Material data	
Radome colour	RAL 9002 (grey-white)
Radome material	Plastic
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

Railway trackside antennas

Railway inter-carriage antennas

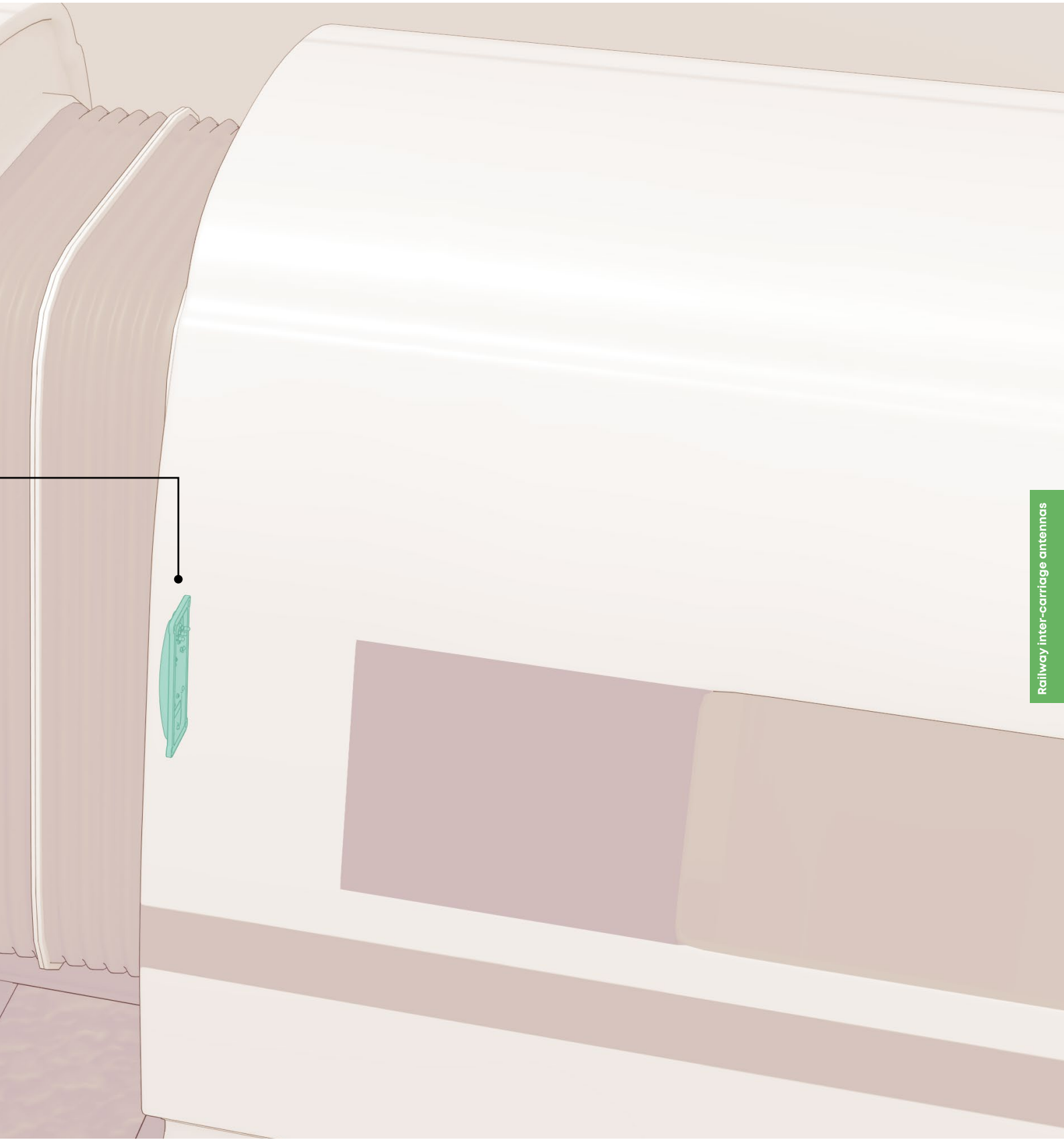
HUBER+SUHNER has developed a specialized antenna designed to support wireless inter-carriage coupling with advanced antenna technology to prevent interference with other systems.



SENCITY Bridge

p. 106

Directional railway inter-carriage antennas for high-throughput data transmission between train carriages which require no manual configuration during train operation.



SENCITY Bridge

Product name	**SENCITY Bridge 3×3 MIMO antenna**
Product ID.	**1356.35.0005**
Description	Wi-Fi MIMO 3×3 antenna designed for Railway Inter-carriage communication. Designed to be used As the wireless interface in inter-carriage data communication links.
	· Directional low gain 3×3 MIMO antenna for Wi-Fi bands between 5150 and 5935 MHz · Vertical and +/-45° polarisation for MIMO performance · Narrow beam width and very low directional gain to prevent interference · Three connector ports directly on the rear, 3 × QMA jack (straight) · Rugged design, meets EN 50155 Railway Standard
Item no.	85109045

Technical Data	**Band 1**
Band name	Wi-Fi
Frequency	5150 – 5935 MHz
VSWR	1.3
Gain	-2 dBi
Port Isolation	30 dB

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	30 Watts
Polarisation	-45° slant, Vertical, +45° slant

Mechanical data	
Dimensions (height × width × depth)	302 × 129 × 33 mm
Weight	0.65 kg

Environmental data	
Environmental conditions	Indoor / outdoor
IP rating	IP5X, IPX6
RoHS 2011/65/EU	compliant
Certifications	EN 50155, EN45545, NFPA 130

Material data	
Radome colour	RAL 7043 (dark grey)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminum

For more detailed information, please visit our website "Products" section.

Railway inter-carriage antennas

Light rail antennas

SENCITY TRAM antennas are developed to provide an all-in-one wireless solution for trams, metros and other vehicles requiring railway certifications such as EN50155, EN45545 and NFPA-130. They are multi-application antennas for cellular, Wi-Fi, Tetra, UHF and GNSS.

SENCITY Tram MIMO

p. 113-116

SENCITY Tram MIMO antennas offer support for 2×2 MIMO systems by use of several radiating elements within one common housing or support 4×4 MIMO systems by installing multiple antennas apart from each other for an optimised performance.

SENCITY Rail in-carriage antenna portfolio

HUBER+SUHNER offers a comprehensive portfolio of antennas for installation inside trains, covering all Wi-Fi bands, as well as cellular services.

p. 66-80

SENCITY Tram

p. 110-112

The SENCITY Tram portfolio offers different combinations of radiating elements efficiently designed to fit into a single compact housing.

SENCITY Tram MULTI

p. 117-120

The SENCITY Tram MULTI is designed for 4×4 MIMO operation in cellular, 8×8 MIMO in Wi-Fi networks. It also offers a variety of combinations of up to 9 radiators within one housing and comes with an GNSS option for L1, L2, L5 operation.

Light rail

SENCITY Tram

Product name	**SENCITY Tram with cellular, Wi-Fi, L1 GNSS and Stick-option**
Product ID.	**1399.99.0201**
Description	Rugged vehicle rooftop multi-band antenna for Light Rail. Meets specific requirements of light rail market. Can be used as the wireless interface for multi-band communication on light rail trains and trams.
	· Supports 2G/3G/4G/5G cellular and Wi-Fi 2.4/5 GHz, Wi-Fi 6E bands and GNSS. · Stick antenna option for Tetra, VHF, etc · Embedded GNSS antenna with integrated low-noise amplifier · 3 elements in one housing plus one stick antenna option and single hole mounting. · Meets EN50155 and fire retardant according to EN45545 and NFPA-130. · Works without a metal ground plane.
Item no.	85174992

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular	Cellular	Cellular	Wi-Fi
Frequency (MHz)	694 – 790	790 – 960	1710 – 2690	1710 – 2690
VSWR	2.1	1.8	2	1.8
Gain (dBi)	5	5	4	6
Port Isolation (dB)	25	25	25	25
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Cellular	Wi-Fi	GNSS	Stick antenna socket
Frequency (MHz)	3400 – 3800	4900 – 7125	1559 – 1610	
SWR	2	2	1.8	
Gain (dBi)	6	7		
Port Isolation (dB)	25	20		

Electrical data	
Impedance	50 Ohms
Number of Ports	4
Composite power max.	30 – 40 Watts (see datasheet for specific bands)
Polarisation	Vertical (Cellular and Wi-Fi) and Circular right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	82 × 83 × 208 mm
Weight	0.41 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP68, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN50155, EN45545-2, NFPA-130

Material data	
Radome colour	RAL 9017 (black)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY Tram

Product name	**SENCITY Tram with Cellular, Wi-Fi and L1 GNSS**
Product ID.	**1399.99.0202**
Description	Rugged vehicle rooftop multi-band antenna for Light Rail. Meets specific requirements of light rail market. Can be used as the wireless interface for multi-band communication on light rail trains and trams.
	· Supports 2G/3G/4G/5G cellular and Wi-Fi 2.4/5 GHz, Wi-Fi 6E bands and GNSS. · Embedded GNSS antenna with integrated low-noise amplifier · 3 elements in one housing and single-hole mounting · Meets EN50155 and fire retardant according to EN45545 and NFPA-130. · Works without metal ground plane.
Item no.	85177259

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular	Cellular	Cellular	Wi-Fi
Frequency (MHz)	694 – 790	790 – 960	1710 – 2690	1710 – 2690
VSWR	2.1	1.8	2	1.8
Gain (dBi)	5	5	4	6
Port Isolation (dB)	25	25	25	25
	Band 5	**Band 6**	**Band 7**	
Band name	Cellular	Wi-Fi	GNSS	
Frequency (MHz)	3400 – 3800	4900 – 7125	1559 – 1610	
SWR	2	2	1.8	
Gain (dBi)	6	7		
Port Isolation (dB)	25	20		

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	30 – 40 Watts (see datasheet for specific bands)
Polarisation	Vertical (Cellular and Wi-Fi) and Circular right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	82 × 83 × 208 mm
Weight	0.41 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP68, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN50155, EN45545-2, NFPA-130

Material data	
Radome colour	RAL 9017 (black)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY Tram

Product name	**SENCITY Tram with Tetra, Wi-Fi and L1 GNSS**
Product ID.	**1399.99.0207**
Description	Rugged vehicle rooftop multi-band antenna for Light Rail. Meets specific requirements of light rail market. Can be used as the wireless interface for multi-band communication on light rail trains and trams.
	· Supports Tetra and Wi-Fi 2.4/5 GHz, Wi-Fi 6E bands and GNSS. · Stick antenna option for Cellular, VHF, etc. · Embedded GNSS antenna with integrated low-noise amplifier · 3 elements in one housing plus one stick antenna option and single hole mounting. · Meets EN50155 and fire retardant according to EN45545 and NFPA-130. · Works without metal ground plane.
Item no.	85180564

Technical Data	**Band 1**	**Band 2**	**Band 3**
Band name	Tetra	Wi-Fi	Wi-Fi
Frequency (MHz)	410 – 430	2400 – 2690	4900 – 7125
VSWR	2	1.8	1.8
Gain (dBi)	4	7	7
Port Isolation (dB)	20	20	20

	Band 4	**Band 5**
Band name	GNSS	Stick antenna socket
Frequency (MHz)	1559 – 1610	
SWR	1.8	
Gain (dBi)		
Port Isolation (dB)		

Electrical data	
Impedance	50 Ohms
Number of Ports	4
Composite power max.	30 – 40 Watts (see datasheet for specific bands)
Polarisation	Vertical (Tetra and Wi-Fi), Circular right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	82 × 83 × 208 mm
Weight	0.41 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP68, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN50155, EN45545-2, NFPA-130

Material data	
Radome colour	RAL 9017 (black)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY Tram MIMO

Product name	**SENCITY Tram MIMO with 3×3 Wi-Fi**
Product ID.	**1399.99.0203**
Description	Rugged vehicle rooftop multi-band antenna for Light Rail. Meets specific requirements of light rail market. Can be used As the wireless interface for multi-band communication on light rail trains and trams.
	· Supports MIMO for Wifi 2.4/5 GHz, Wifi 6E bands in 3×3 configuration. · 3 elements in one housing and single-hole mounting · Meets EN50155 and fire retardant according to EN45545 and NFPA-130. · Works without metal ground plane.
Item no.	85197331

Technical Data	Band 1	Band 2
Band name	Wi-Fi	Wi-Fi
Frequency (MHz)	2500 – 2690	4900 – 7152
VSWR	2.0	2.0
Gain (dBi)	6	7
Port Isolation (dB)	14	22

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	30 – 40 Watts (see datasheet for specific bands)
Polarisation	Vertical (Wi-Fi)

Mechanical data	
Dimensions (height × width × depth)	82 × 83 × 208 mm
Weight	0.41 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP68, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN50155, EN45545-2, NFPA-130

Material data	
Radome colour	RAL 9017 (black)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

Light rail

SENCITY Tram MIMO

Product name	**SENCITY Tram MIMO with 2×2 Cellular**
Product ID.	**1399.99.0204**
Description	Rugged vehicle rooftop multi-band antenna for Light Rail. Meets specific requirements of light rail market. Can be used as the wireless interface for multi-band communication on light rail trains and trams.
	· Supports 2G/3G/4G/5G cellular in 2×2 MIMO configuration. · 2 elements in one housing and single-hole mounting · Meets EN50155 and fire retardant according to EN45545 and NFPA-130. · Works without metal ground plane.
Item no.	85180413

Technical Data	Band 1	Band 2	Band 3
Band name	Cellular	Cellular	Cellular
Frequency (MHz)	694 – 790	790 – 960	1710 – 2170
VSWR	1.8	1.8	1.8
Gain (dBi)	4	4.5	5
Port Isolation (dB)	12	12	15
	Band 4	**Band 5**	**Band 6**
Band name	Cellular	Cellular	Cellular
Frequency (MHz)	2400 – 2690	3400 – 3800	4900 – 7125
SWR	1.8	1.6	1.6
Gain (dBi)	5	6	6.5
Port Isolation (dB)	16	18	19

Electrical data	
Impedance	50 Ohms
Number of Ports	2
Composite power max.	20 – 40 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular)

Mechanical data	
Dimensions (height × width × depth)	98 × 83 × 208 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP68, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN50155, EN45545-2, NFPA-130

Material data	
Radome colour	RAL 9017 (black)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY Tram MIMO

Product name	**SENCITY Tram MIMO with 2×2 Cellular and L1 GNSS**
Product ID.	**1399.99.0205**
Description	Rugged vehicle rooftop multi-band antenna for Light Rail. Meets specific requirements of light rail market. Can be used As the wireless interface for multi-band communication on light rail trains and trams.
	· Supports 2G/3G/4G/5G cellular in 2×2 MIMO configuration plus GNSS. · Embedded GNSS antenna with integrated low-noise amplifier · 3 elements in one housing and single-hole mounting · Meets EN50155 and fire retardant according to EN45545 and NFPA-130. · Works without metal ground plane.
Item no.	85176492

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular	Cellular	Cellular	Cellular
Frequency (MHz)	694 – 790	790 – 960	1710 – 2170	2400 – 2690
VSWR	1.8	1.8	1.8	1.8
Gain (dBi)	4	4.5	5	5
Port Isolation (dB)	12	12	15	18

	Band 5	**Band 6**	**Band 7**
Band name	Cellular	Cellular	GNSS
Frequency (MHz)	3400 – 4200	4900 – 7125	1559 – 1610
SWR	1.7	1.6	1.8
Gain (dBi)	6	6.5	
Port Isolation (dB)	15	19	

Electrical data	
Impedance	50 Ohms
Number of Ports	3
Composite power max.	20 – 40 Watts (see datasheet for specific bands)
Polarisation	Vertical (cellular) and circular right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	98 × 83 × 208 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP68, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN50155, EN45545-2, NFPA-130

Material data	
Radome colour	RAL 9017 (black)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY Tram MIMO

Product name	**SENCITY Tram MIMO with 2×2 Cellular, 2×2 Wi-Fi and L1 GNSS**
Product ID.	**1399.99.0206**
Description	Rugged vehicle rooftop multi-band antenna for Light Rail. Meets specific requirements of light rail market. Can be used as the wireless interface for multi-band communication on light rail trains and trams.
	· Supports 2×2 MIMO for 2G/3G/4G/5G cellular and Wi-Fi 2.4/5 GHz, Wi-Fi 6E bands plus offers GNSS. · Embedded GNSS antenna with integrated low-noise amplifier · 5 elements in one housing and single-hole mounting · Meets EN50155 and fire retardant according to EN45545 and NFPA-130. · Works without metal ground plane.
Item no.	85163180

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Cellular	Cellular	Cellular	Wi-Fi
Frequency (MHz)	694 – 790	790 – 960	1710 – 2170	2400 – 2690
VSWR	1.8	1.7	1.7	2
Gain (dBi)	4	4	5	6
Port Isolation (dB)	10	10	12	10
	Band 5	**Band 6**	**Band 7**	**Band 8**
Band name	Cellular	Cellular	Wi-Fi	GNSS
Frequency (MHz)	2400 – 2690	3400 – 3800	4900 – 7125	1559 – 1610
SWR	2	1.7	1.8	1.8
Gain (dBi)	4	4	5	6
Port Isolation (dB)	10	10	12	10

Electrical data	
Impedance	50 Ohms
Number of Ports	5
Composite power max.	20 – 40 Watts (see datasheet for specific bands)
Polarisation	Vertical (Cellular and Wi-Fi), Circular right (GNSS)

Mechanical data	
Dimensions (height × width × depth)	98 × 83 × 208 mm
Weight	0.5 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP68, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN50155, EN45545-2, NFPA-130

Material data	
Radome colour	RAL 9017 (black)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY Tram MULTI

Product name	**SENCITY Tram MULTI with 4×4 Cellular and 4×4 Wi-Fi MIMO and Dualband GNSS**
Product ID.	**1399.99.0233**
Description	Rugged multi-element and multi-band rooftop antenna for Light Rail. Meets specific requirements of light rail market. Omnidirectional radiation with 4×4 MIMO operation in cellular and 4×4 MIMO in Wi-Fi networks with integrated GNSS for L1, L2, L5. More variants as described on page 123.
	· Supports 2G/3G/4G/5G cellular, Wi-Fi 2.4/5 GHz, Wi-Fi 6E. · Includes dual band GNSS antenna & integrated LNA covering GPS L1+L2+L5/Galileo E1+E5a+E5b/BeiDou B1+B2+B3/GLONASS G1+G2 · 9 separate ports for 4×4 cellular MIMO and 4×4 Wi-Fi MIMO plus dual band GNSS. · Meets EN50155 and fire retardant according to EN45545 and NFPA-130. · Single-hole mounting, easy cabling feed-through. · Works without metal ground plane.
Item no.	85185407

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	Cellular	Cellular	Cellular	Cellular
Frequency (MHz)	617 – 960	1350 – 2700	3300 – 4200	4900 – 7125
VSWR	2	2.1	2	2
Gain (dBi)	2	4	4	5
Port Isolation (dB)	9	18	15	18
	Band 5	**Band 6**	**Band 7**	**Band 8/9**
Band name	Wi-Fi	Wi-Fi	GNSS	GNSS
Frequency (MHz)	2400 – 2500	4900 – 7125	1164 – 1279	1164 – 1279 / 1559 – 1610
SWR	2	2	1.5	1.5 / 1.8
Gain (dBi)	6	6		
Port Isolation (dB)	24	24		

Electrical data	
Impedance	50 Ohms
Number of Ports	9
Composite power max.	30 – 40 Watts (see datasheet for specific bands)
Polarisation	Vertical (Cellular and Wi-Fi), Circular right (GNSS)

Mechanical data	
Dimensions (diameter × height)	210 × 60 mm
Weight	1.1 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP68, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN50155, EN45545-2, NFPA-130

Material data	
Radome colour	RAL 9017 (black)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY Tram MULTI

Product name	**SENCITY Tram MULTI with 8×8 Wi-Fi and Dualband GNSS**
Product ID.	**1399.99.0237**
Description	Rugged multi-element and multi-band rooftop antenna for Light Rail. Meets specific requirements of light rail market. Omnidirectional radiation with 8×8 MIMO operation in Wi-Fi networks with integrated GNSS. More variants as described on page 123.
	· Supports Wi-Fi 2.4/5 GHz, Wi-Fi 6E · Includes dual band GNSS antenna & integrated LNA covering GPS L1+L2+L5/Galileo E1+E5a+E5b/BeiDou B1+B2+B3/GLONASS G1+G2 · 9 separate ports 8×8 Wi-Fi MIMO plus dual band GNSS. · Meets EN50155 and fire retardant according to EN45545 and NFPA-130. · Single-hole mounting, easy cabling feed-through. · Works without metal ground plane.
Item no.	85185419

Technical Data	Band 1	Band 2	Band 3	Band 4
Band name	Wi-Fi	Wi-Fi	GNSS	GNSS
Frequency (MHz)	2400 – 2500	4900 – 7125	1559 – 1610	1559 – 1610
VSWR	2	2	1.8	1.8
Gain (dBi)	6	6		
Port Isolation (dB)	24	24		

Electrical data	
Impedance	50 Ohms
Number of Ports	9
Composite power max.	30 Watts (see datasheet for specific bands)
Polarisation	Vertical (Wi-Fi), Circular right (GNSS)

Mechanical data	
Dimensions (diameter × height)	210 × 60 mm
Weight	1.1 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP68, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN50155, EN45545-2, NFPA-130

Material data	
Radome colour	RAL 9017 (black)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

SENCITY Tram MULTI

Product name	**SENCITY Tram MULTI with 2×2 TETRA, 4×4 Wi-Fi MIMO and Dualband GNSS**
Product ID.	**1399.99.0253**
Description	Rugged multi-element and multi-band rooftop antenna for Light Rail. Meets specific requirements of light rail market. Omnidirectional radiation with 2×2 TETRA, 4×4 MIMO operation in Wi-Fi networks and with integrated GNSS. More variants as described on page 123.
	· Supports TETRA, LTE450, 2G/3G/4G/5G cellular, Wi-Fi 2.4/5 GHz, Wi-Fi 6E. · Includes dual band GNSS antenna & integrated LNA covering GPS L1+L2+L5/Galileo E1+E5a+E5b/BeiDou B1+B2+B3/GLONASS G1+G2 · 7 separate ports for 2×2 TETRA/cellular and 4×4 Wi-Fi MIMO plus dual band GNSS. · Meets EN50155 and fire retardant according to EN45545 and NFPA-130. · Single-hole mounting, easy cabling feed-through
Item no.	85185041

Technical Data	**Band 1**	**Band 2**	**Band 3**	**Band 4**
Band name	TETRA/LTE450	Cellular	Cellular	Cellular
Frequency (MHz)	380 – 470	694 – 960	1350 – 2700	3300 – 4200
VSWR	2.5	2.0	2.0	2.0
Gain (dBi)	3	2	4	4
Port Isolation (dB)	3	8	15	20
	Band 5	**Band 6**	**Band 7**	**Band 8/9**
Band name	Cellular	Wi-Fi	Wi-Fi	GNSS
Frequency (MHz)	4900 – 7125	2400 – 2500	4900 – 7125	1164 – 1279 / 1559 – 1610
SWR	2.0	2.0	2.0	1.5 / 1.8
Gain (dBi)	5	6	6	
Port Isolation (dB)	20	20	20	

Electrical data	
Impedance	50 Ohms
Number of Ports	7
Composite power max.	30 – 40 Watts (see datasheet for specific bands)
Polarisation	Vertical (Tetra and Wi-Fi), Circular right (GNSS)

Mechanical data	
Dimensions (diameter × height)	210 × 60 mm
Weight	1.1 kg

Environmental data	
Environmental conditions	outdoor
IP rating	IP68, IP69k
RoHS 2011/65/EU	compliant
Certifications	EN50155, EN45545-2, NFPA-130

Material data	
Radome colour	RAL 9017 (black)
Radome material	PC (Polycarbonate)
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

Light rail

The SENCITY Tram MULTI portfolio is designed for 4×4 MIMO operation in cellular, 8×8 MIMO in Wi-Fi networks and in addition comes with 2×2 TETRA options. It offers a variety of combinations of up to 9 radiators within one housing and comes with an GNSS option for L1, L2, L5 operation. The standard versions are listed below:

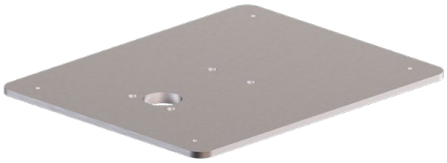
Product ID	Article No.	Cellular	Wi-Fi	TETRA	GNSS
1399.19.0208	85185402	2			
1399.99.0209	85185403	2			L1+L2+L5
1399.99.0208	85185404	2			L1
1399.19.0210	85185371	2	2		
1399.99.0211	85185373	2	2		L1+L2+L5
1399.99.0210	85185374	2	2		L1
1399.19.0212	85185375	2	3		
1399.99.0213	85185379	2	3		L1+L2+L5
1399.99.0212	85185381	2	3		L1
1399.19.0214	85185382	2	4		
1399.99.0215	85185383	2	4		L1+L2+L5
1399.99.0214	85185384	2	4		L1
1399.19.0216	85185385	4			
1399.99.0217	85185386	4			L1+L2+L5
1399.99.0216	85185387	4			L1
1399.19.0218	85185388	4	2		
1399.99.0219	85185389	4	2		L1+L2+L5
1399.99.0218	85185390	4	2		L1
1399.19.0220	85185391	4	3		
1399.99.0221	85185395	4	3		L1+L2+L5
1399.99.0220	85185397	4	3		L1
1399.19.0232	85185406	4	4		
1399.99.0233	85185407	4	4		L1+L2+L5
1399.99.0232	85185408	4	4		L1
1399.19.0234	85185409		6		
1399.99.0235	85185416		6		L1+L2+L5
1399.99.0234	85185417		6		L1
1399.19.0236	85185418		8		
1399.99.0237	85185419		8		L1+L2+L5
1399.99.0236	85185420		8		L1
1399.19.0238	85185512			1	
1399.99.0239	85185513			1	L1+L2+L5
1399.99.0238	85185514			1	L1
1399.19.0240	85185515		2	1	
1399.99.0241	85185516		2	1	L1+L2+L5
1399.99.0240	85185517		2	1	L1
1399.19.0242	85185518		3	1	
1399.99.0243	85185523		3	1	L1+L2+L5
1399.99.0242	85185524		3	1	L1
1399.19.0244	85185525		4	1	
1399.99.0245	85185526		4	1	L1+L2+L5
1399.99.0244	85185527		4	1	L1
1399.19.0246	85185528			2	
1399.99.0247	85185529			2	L1+L2+L5
1399.99.0246	85185533			2	L1
1399.19.0248	85185534		2	2	
1399.99.0249	85185535		2	2	L1+L2+L5
1399.99.0248	85185536		2	2	L1
1399.19.0250	85185038		3	2	
1399.99.0251	85185037		3	2	L1
1399.99.0250	85185036		3	2	L1
1399.19.0252	85185039		4	2	
1399.99.0253	85185041		4	2	L1+L2+L5
1399.99.0252	85185042		4	2	L1

Outline drawing and mounting instruction are the same for every antenna.

Newcastle Beach

Accessories

Railway
Accessories



Product name	**SENCITY Rail MIMO+ antenna adaptor plate from HUBER+SUHNER footprint**
Product ID.	**9091.99.0287**
Description	Allows installation of a MIMO+ antenna onto an already existing mounting position designed for a HUBER+SUHNER sharkfin / MIMO antenna with 165 × 80 mm hole configuration.
Item no.	85190627

Product name	**SENCITY Rail MIMO+ Antenna Adaptor Plate from Kathrein / Low profile Footprint**
Product ID.	**9091.99.0291**
Description	Allows installation of a MIMO+ antenna onto an already existing mounting position designed for a Kathrein antenna / low profile antenna with 115 × 56 mm hole configuration.
Item no.	85219261

Product name	**SENCITY Rail aluminium mounting plate for MULTI antennas (full size)**
Product ID.	**9091.99.0263**
Description	Bended aluminium welding/mounting plate for Sencity Rail Multi 13-Port antennas. Can be used to simplify the installation of railway rooftop antenna type 1399.99.0133 on aluminium bodied trains.
	· Provides optimal mechanical stability for the antenna mounting · Contains all required cutouts and mounting positions for the antenna baseplate · Self-contained rivet nuts are integrated into the mounting plate · M8 mounting bolts are included in the scope of delivery · Ensures IP69 ingress protection level when correctly welded onto the train body · Works without a metal ground plane
Item no.	85101559

Mechanical data	
Dimensions (height × width × depth)	35 × 400 × 930 mm
Weight	4.5 kg

Environmental data	
IP rating	IP69
RoHS 2011/65/EU	compliant

Material data	
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

Product name	**SENCITY Rail steel mounting plate for MULTI antennas (full size)**
Product ID.	**9091.99.0264**
Description	Bended steel welding/mounting plate for Sencity Rail Multi 13-Port antennas. Can be used to simplify the installation of railway rooftop antenna type 1399.99.0133 on steel bodied trains.
	· Provides optimal mechanical stability for the antenna mounting · Contains all required cutouts and mounting positions for the antenna baseplate · Self-contained rivet nuts are integrated into the mounting plate · M8 mounting bolts are included in the scope of delivery · Ensures IP69 ingress protection level when correctly welded onto the train body
Item no.	85101560

Mechanical data	
Dimensions (height × width × depth)	35 × 400 × 930 mm
Weight	13.5 kg

Environmental data	
IP rating	IP69
RoHS 2011/65/EU	compliant

Material data	
Back plate / base plate material	Steel

For more detailed information, please visit our website "Products" section.

Product name	**SENCITY Rail aluminium mounting plate for MULTI antennas (half size)**
Product ID.	**9091.99.0269**
Description	Bended aluminium welding/mounting plate for Sencity Rail Multi 4x4 antennas. Can be used to simplify the installation of 4x4 railway rooftop antennas on aluminium bodied trains.
	· Provides optimal mechanical stability for the antenna mounting · Contains all required cutouts and mounting positions for the antenna baseplate · Self-contained rivet nuts are integrated into the mounting plate · M8 mounting bolts are included in the scope of delivery · Ensures IP69 ingress protection level when correctly welded onto the train body
Item no.	85140300

Mechanical data	
Dimensions (height × width × depth)	35 × 400 × 409 mm
Weight	2.5 kg

Environmental data	
IP rating	IP69
RoHS 2011/65/EU	compliant

Material data	
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

Product name	**SENCITY Rail steel mounting plate for MULTI antennas (half size)**
Product ID.	**9091.99.0270**
Description	Bended steel welding/mounting plate for Sencity Rail Multi 4x4 antennas. Can be used to simplify the installation of 4x4 railway rooftop antennas on steel bodied trains.
	· Provides optimal mechanical stability for the antenna mounting · Contains all required cutouts and mounting positions for the antenna baseplate · Self-contained rivet nuts are integrated into the mounting plate · M8 mounting bolts are included in the scope of delivery · Ensures IP69 ingress protection level when correctly welded onto the train body
Item no.	85104623

Mechanical data	
Dimensions (height × width × depth)	35 × 400 × 490 mm
Weight	7.4 kg

Environmental data	
IP rating	IP69
RoHS 2011/65/EU	compliant

Material data	
Back plate / base plate material	Steel

For more detailed information, please visit our website "Products" section.

Product name	**SENCITY Low Noise Amplifier GNSS (GPS, GLONASS, BeiDou, Galileo)**
Product ID.	**86010142**
Description	The low noise amplifier 86010142 is designed for the use inside vehicles with train antennas with GNSS.
	· It includes a preselection filter to prevent the interference in case of simultaneous operation at the frequency range 380–960/1710–3800 MHz and GNSS. · The product fulfils the requirements according to EN 50155 and EN45545.
Item no.	84460305

Electrical data	**Band 1**
Frequency	1559 – 1609 MHz
Gain	25 dBi
Composite power max.	max. 50 W

Mechanical data	
Dimensions (height × width × depth)	70 × 22 × 50 mm
Mounting	4 holes, 4.5 mm diameter
Connector	1 × N (female)

Environmental data	
Operation temperature	–25 to 55 °C
Flammability rating	EN 45545-2
RoHS 2011/65/EU	compliant

For more detailed information, please visit our website "Products" section.

Product name	**SENCITY Rail M8 sealing washer kit**
Product ID.	**9091.99.0256**
Description	Replacement / spare part kit of 4x M8 washers for SENCITY Rail antenna products. Can be used to simplify the installation of railway rooftop antennas.
	· These washers are used to seal the 4 mounting screws without using additional treatment · This kit is designed for SENCITY Rail antennas using M8 mounting screws · Please refer to the mounting instruction of the respective antenna product for compatibility details
Item no.	85068236

Mechanical data	
Dimensions (height × diameter)	1.6 × 14mm

Environmental data	
IP rating	IP69
RoHS 2011/65/EU	compliant

For more detailed information, please visit our website "Products" section.

Accessories

Product name	**SENCITY Rail M10 Sealing Washer Kit**
Product ID.	**9091.99.0257**
Description	Replacement / spare part kit of 4x M10 washers for SENCITY Rail antenna products. Can be used to simplify the installation of railway rooftop antennas.
	· These washers are used to seal the 4 mounting screws without using additional treatment · This kit is designed for SENCITY Rail antennas using M10 mounting screws · Please refer to the mounting instruction of the respective antenna product for compatibility details
Item no.	85068234

Mechanical data	
Dimensions (height × diameter)	2.54 × 16mm

Environmental data	
IP rating	IP69
RoHS 2011/65/EU	compliant

For more detailed information, please visit our website "Products" section.

Product name	**SENCITY Rail antenna conduit support kit**
Product ID.	**9091.99.0236**
Description	Conduit Support Kit for the SENCITY Rail antennas to enable installation of a cable conduit on the antenna. Can be used to ensure railway rooftop antennas remain sealed even in non-ideal mounting surfaces.
	· Allows mounting of a M40 × 1.5mm cable conduit to the base of the antenna · Thread 3rd party conduit system with M40x1.5mm thread with a length of 10...12 mm · Including a sealing gasket. The inner diameter of the conduit must be =32mm in the area of the thread. · This kit is not compatible with all SENCITY Rail antennas. Please refer to the data sheet of the antenna.
Item no.	84079593

Mechanical data	
Dimensions (height × diameter)	7 × 55 mm
Weight	0.01 kg

Environmental data	
IP rating	IP69
RoHS 2011/65/EU	compliant

For more detailed information, please visit our website "Products" section.

Accessories

Product name	**SENCITY Rail antenna grounding kit**
Product ID.	**9091.99.0235**
Description	Grounding Kit for the SENCITY Rail antennas to enable high voltage / high current protection in installations antennas on non-ideal mounting surfaces. Can be used to ensure railway rooftop antennas meet the required safety standards even in non-ideal mounting surfaces.
	· Provides an M16 socket to contact a grounding bar (up to 40kA/0.1s) · Includes mounting material adapter, 4x M4 screws, o-ring, washer and 1x M16 screw · This kit is required for installations on non-metallic support · This kit is not compatible with all SENCITY Rail antennas. Please refer to the data sheet of the antenna.
Item no.	84079030

Mechanical data	
Dimensions (height × width × depth)	47.5 × 32 × 32 mm
Weight	0.2 kg

Environmental data	
IP rating	No
RoHS 2011/65/EU	compliant

For more detailed information, please visit our website "Products" section.

Product name	**SENCITY Rail flexible mounting plate for surface thickness of 0.5 – 12 mm**
Product ID.	**9091.99.0261**
Description	Aluminium compression mounting plate for SENCITY Rail antennas. Can be used to simplify the installation of railway rooftop antennas on fiberglass or non-ideal mounting surfaces.
	· Allows the antenna to be mounted on a metal or non-metal train roof with a thickness of 0.5 to 12 mm · Easy mounting procedure without welding · Grounding kit type 9091.99.0235 and Screws to mount the antennas are included · This product is not compatible to all Sencity Rail antennas. Please check the datasheet of the antenna
Item no.	85079842

Mechanical data	
Dimensions (height × width × depth)	20 × 108 × 360 mm
Weight	2.2 kg

Environmental data	
IP rating	IP69
RoHS 2011/65/EU	compliant

Material data	
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

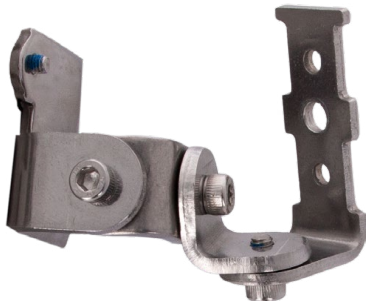
Product name	**SENCITY Rail antenna adaptor plate from Kathrein footprint**
Product ID.	**9091.99.0252**
Description	Adaptor plate for mounting a SENCITY Rail SISO antenna onto Kathrein footprint (115mm). Can be used to simplify the replacement of a Kathrein antenna with an 1399.99.0120, 1399.17.0122, 1399.99.0026 or 1399.17.0094.
	· Compatible with antennas 1399.99.0120, 1399.17.0122, 1399.99.0026 and 1399.17.0094 only · Made from machined alumium and includes integrated sealing gaskets
Item no.	84148131

Mechanical data	
Dimensions (height × width × depth)	25 × 100 × 260 mm
Weight	1.6 kg

Environmental data	
IP rating	IP69
RoHS 2011/65/EU	compliant
Certifications	EN 45545-2

Material data	
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.



Product name	**Bracket for SENCITY SPOT-S antenna**
Product ID.	**9091.99.0267**
Description	Aluminium 3D mounting bracket for SENCITYSPOT-S antenna series. Allows up/down, left/right and radial tilting.
	· Supports both wall and pole mounting · Included mounting material is 2 × M4 L=8mm screws and 2×hose clamps for pole-diameter from 25 to 85 mm · Maximum tractive force is 20N in x/y/z direction · For indoor and outdoor applications
Item no.	85100336

Mechanical data	
Dimensions (height × width × depth)	58 × 42 × 70 mm
Mast (diameter)	25-85

Environmental data	
RoHS 2011/65/EU	compliant

For more detailed information, please visit our website "Products" section.

Accessories

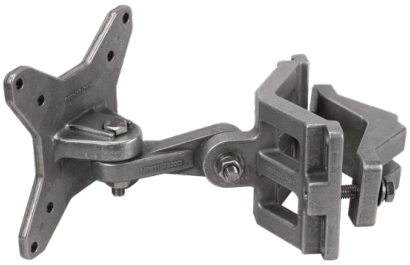
Product name	**Bracket for SENCITY SPOT-M antenna**
Product ID.	**9091.99.0201**
Description	Aluminium Mounting bracket for the SENCITY SPOT-M antenna series. Allows both up/down and left/right tilting.
	· Supports both wall and pole mounting · Material of fasteners (screws, hex nuts and washers): Stainless steel, quality A2 or higher · Azimuth resolution step: 2° on wall · Tilt resolution step: 2° on pole and wall · Allows for an installation payload of 20 kg maximum
Item no.	84018626

Mechanical data	
Dimensions (height × width × depth)	115 × 115 × 190 mm
Weight (kg)	0.86
Mast diameter (mm)	25 – 76

Environmental data	
RoHS 2011/65/EU	compliant

For more detailed information, please visit our website "Products" section.

Accessories



Product name	**Bracket for SENCITY SPOT-L antenna**
Product ID.	**9091.99.0183**
Description	Aluminium Mounting bracket for the SENCITY SPOT-L antenna series. Allows both up/down and left/right tilting.
	· Supports both wall and pole mounting · Material of fasteners (screws, hex nuts and washers): Stainless steel, quality A2 or higher · Azimuth resolution step: 2° on wall · Tilt resolution step: 2° on pole and wall · Allows for an installation payload of 20 kg maximum
Item no.	84007205

Mechanical data	
Dimensions (height × width × depth)	115 × 115 × 225 mm
Weight (kg)	0.86
Mast diameter (mm)	25-76

Environmental data	
RoHS 2011/65/EU	compliant

For more detailed information, please visit our website "Products" section.

Accessories for SENCITY Tram

Product name	**TETRA Stick antenna 380 – 430 MHz**
Product ID.	**9091.99.0247**
Description	TETRA Stick antenna for use with SENCITY Tram products. Can be used as the accessory antenna for additional frequency bands.
	· Frequency range from 380 to 430 MHz · Easy installation by M5 interface
Item no.	84112256

Technical Data	**Band 1**
Band name	TETRA
Frequency (MHz)	380 – 430
VSWR	2
Gain (dBi)	3.5

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	10 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × diameter)	145 × 15 mm
Weight	0.05 kg

Environmental data	
Environmental conditions	Outdoor
RoHS 2011/65/EU	compliant
Certifications	UL 94-HB

Material data	
Radome colour	Black

For more detailed information, please visit our website "Products" section.

Accessories for SENCITY Tram

Product name	**TETRA Stick antenna 450 – 470 MHz**
Product ID.	**9091.99.0248**
Description	TETRA Stick antenna for use with SENCITY Tram products. Can be used as the accessory antenna for additional frequency bands.
	· Frequency range from 450 to 470 MHz · Easy installation by M5 interface
Item no.	84112257

Technical Data	**Band 1**
Band name	TETRA
Frequency (MHz)	450 – 470
VSWR	2
Gain (dBi)	3

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	10 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × diameter)	120 × 15 mm
Weight	0.05 kg

Environmental data	
Environmental conditions	Outdoor
RoHS 2011/65/EU	compliant
Certifications	UL 94-HB

Material data	
Radome colour	Black

For more detailed information, please visit our website "Products" section.

Accessories for SENCITY Tram

Product name	**TETRA Stick antenna 410 – 430 MHz**
Product ID.	**9091.99.0254**
Description	TETRA Stick antenna for use with SENCITY Tram products. Can be used as the accessory antenna for additional frequency bands.
	· Frequency range from 410 to 430 MHz · Easy installation by M5 interface
Item no.	85007967

Technical Data	**Band 1**
Band name	TETRA
Frequency (MHz)	410 – 430
VSWR	2
Gain (dBi)	3.5

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Composite power max.	10 Watts
Polarisation	Vertical

Mechanical data	
Dimensions (height × diameter)	131 × 15 mm
Weight	0.05 kg

Environmental data	
Environmental conditions	Outdoor
RoHS 2011/65/EU	compliant
Certifications	UL 94-HB

Material data	
Radome colour	Black

For more detailed information, please visit our website "Products" section.

Accessories for SENCITY Tram

Product name	**FM radio stick antenna 88 – 108 MHz**
Product ID.	**9091.99.0246**
Description	FM Radio Stick antenna for use with SENCITY Tram products. Can be used as the accessory antenna for additional frequency bands.
	· Frequency range from 88 to 108 MHz · Easy installation by M5 interface · Can be equipped on optional antenna socket
Item no.	84112255

Technical Data	**Band 1**
Frequency (MHz)	88 – 108

Electrical data	
Impedance	50 Ohms
Number of Ports	1
Polarisation	Vertical

Mechanical data	
Dimensions (height × diameter)	425 × 16 mm
Weight	0.1 kg

Environmental data	
Environmental conditions	Outdoor
RoHS 2011/65/EU	compliant
Certifications	UL 94-HB

Material data	
Radome colour	Black

For more detailed information, please visit our website "Products" section.

Accessories for SENCITY Tram

Product name	**Metal ground plane foil 0.6×0.6m**
Product ID.	**9091.99.0250**
Description	Metal ground plane foil 0.6×0.6m. Can be used as an accessory for SENCITY Tram products.
	· Adhesive aluminium foil kit. · Easy mounting using 3 strips each 0.2×0.6 m · Builds a metal ground plane for monopole stick antennas, if mounted on non-metal materials
Item no.	84124410

Mechanical data	
Dimensions (height × width × depth)	600 × 600 × 0.06mm
Weight	0.69 kg

Material data	
Back plate / base plate material	Aluminium

For more detailed information, please visit our website "Products" section.

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Waiver
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