

Critical Communications

Edition 11/2025

Secure, reliable and continuous coverage for business and mission critical networks





Connecting – today and beyond



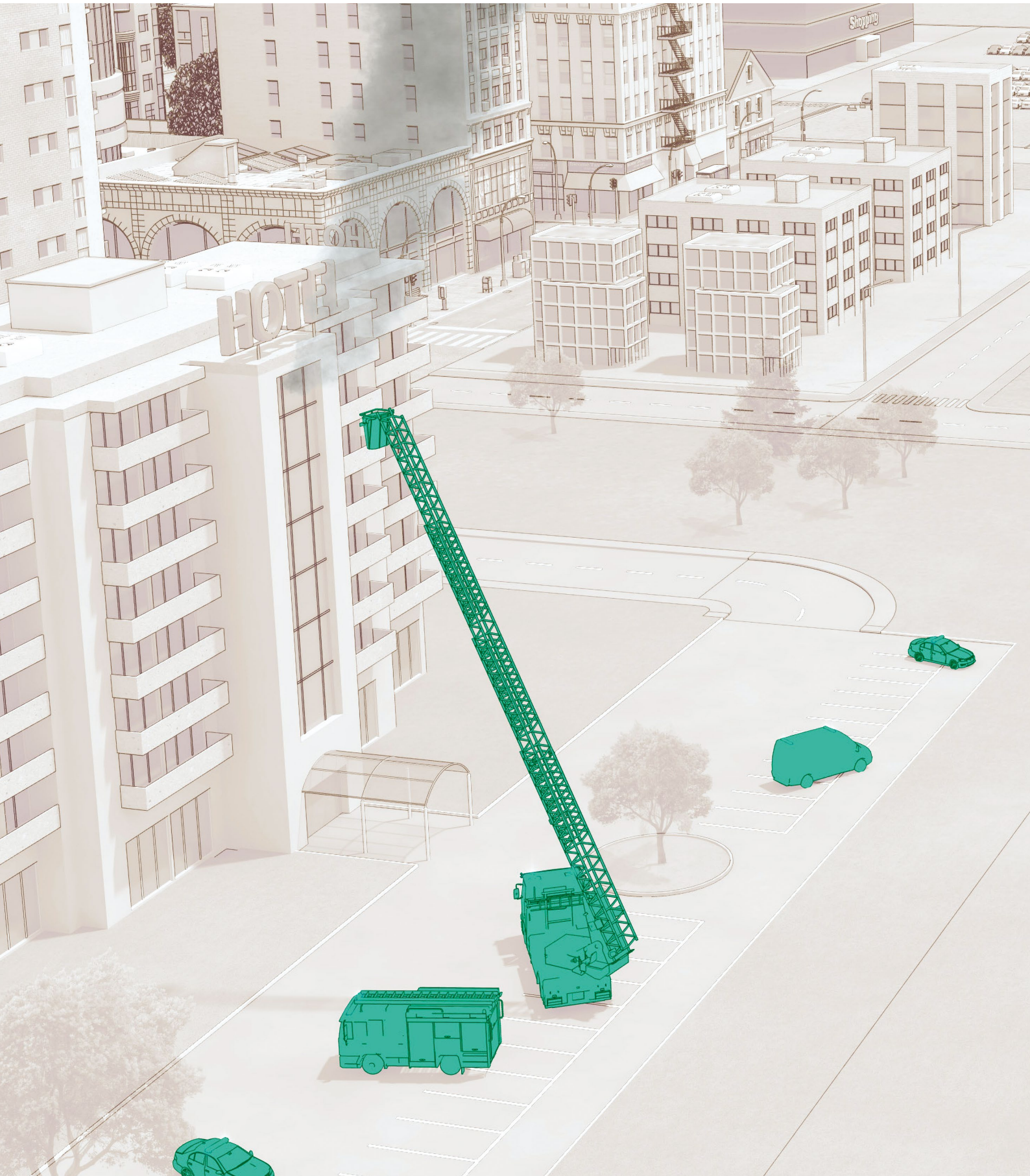
HUBER+SUHNER is a global company with headquarters in Switzerland which develops and manufactures components and system solutions for electrical and optical connectivity. With cables, connectors and systems developed from the three core technologies of radio frequency, fiber optics and low frequency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

Blue light

HUBER+SUHNER products also support mission-critical applications for emergency response and blue light forces by providing robust and secure solutions that support front-line operations in the air, on the ground and at sea. Covering the digital TETRA,



ultra-broadband and professional LTE bands, we offer mobile communication services enabling the combination of voice and data in emergency situations to ensure reliable coverage when it is needed most.



SENCITY® SC Omni 370 – 430 MHz, 2dBi

TypeNo. 848114 p.25

Ideal for Receive purposes on firebrigade or similar buildings. Standard antenna in many European countries. Suitable for TETRA, TETRAPol and LTE410.



SENCITY® SC High-Gain Omni 380 – 400 MHz, 7.5dBi

TypeNo. K862748 p.28

Ideal for Transmit purposes on towers. Standard antenna in many European countries. Suitable for TETRA, TETRAPol.



SENCITY® SC Indoor Panel 380 – 470 MHz, 7dBi

TypeNo. 1399.31.0020 p.70

Combining TETRA, TETRAPol, LTE410 & LTE450 in a single extra small housing.

Defense

HUBER+SUHNER products also support mission-critical applications for military forces by providing robust and secure solutions that support front-line operations in the air, on the ground and at sea. Covering the digital TETRA, ultra-broadband and professional LTE bands,

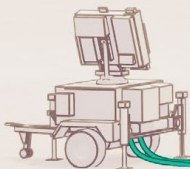


SENCITY® SC Ultra-Broadband Omni 380 – 3800 MHz, 3 – 8.5 dBi

Type no. 92210003

p.27

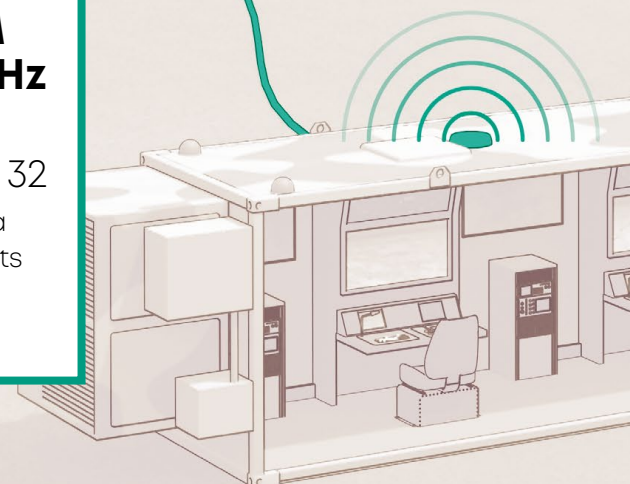
Small ground plane and
excellent coverage



SENCITY® SC OMNI-M antenna 380 – 7125 MHz 2 – 6 dBi

Type no. 1399.17.0340 p.32

Rugged omni-directional antenna
for installation on outdoor cabinets



we offer mobile communication services enabling the combination of voice and data in critical situations to ensure reliable coverage when it is needed most.

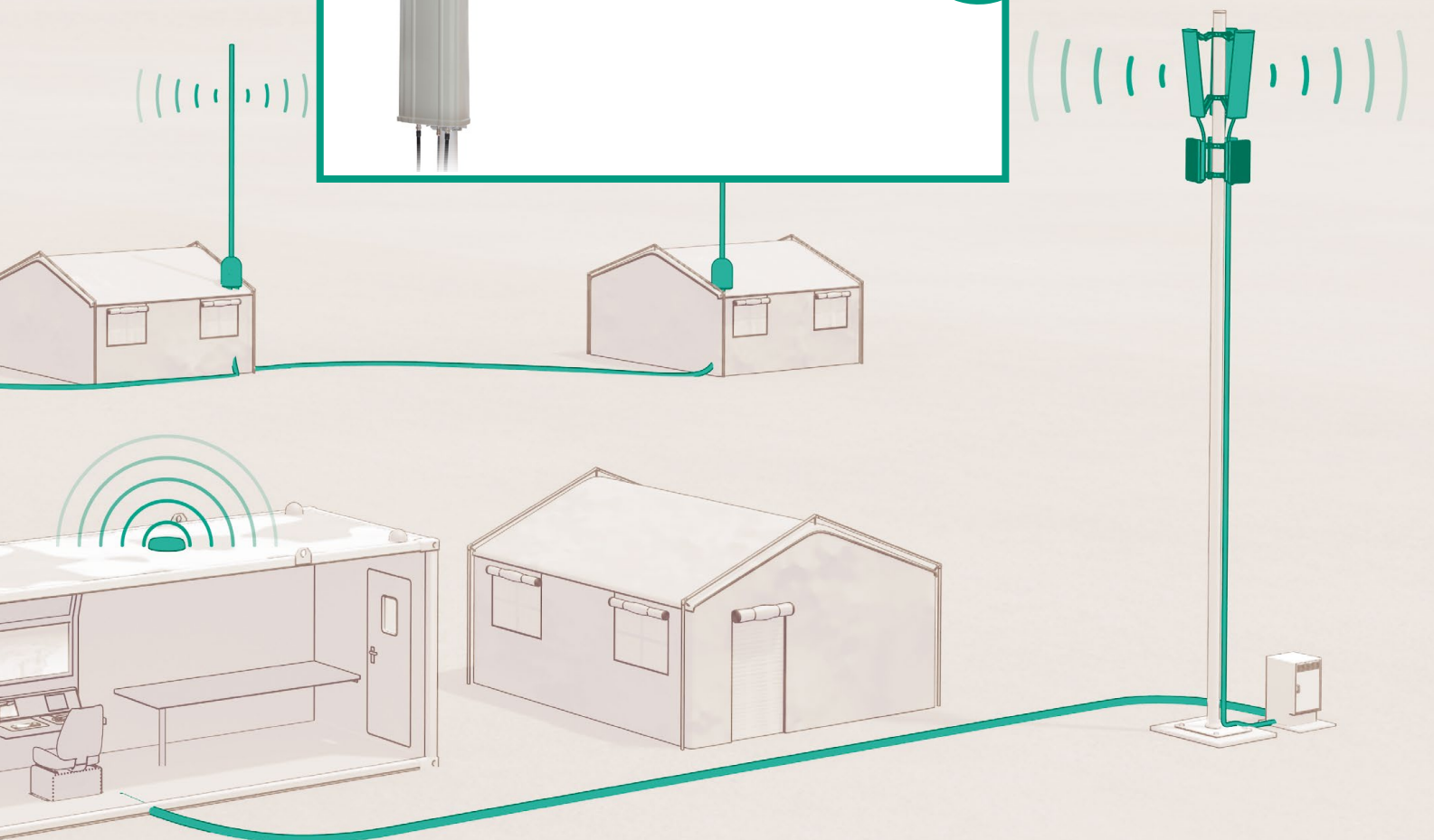


SENCITY® SC Panel XX-Pol Panel antenna

Type no. 91121777V02 p.44

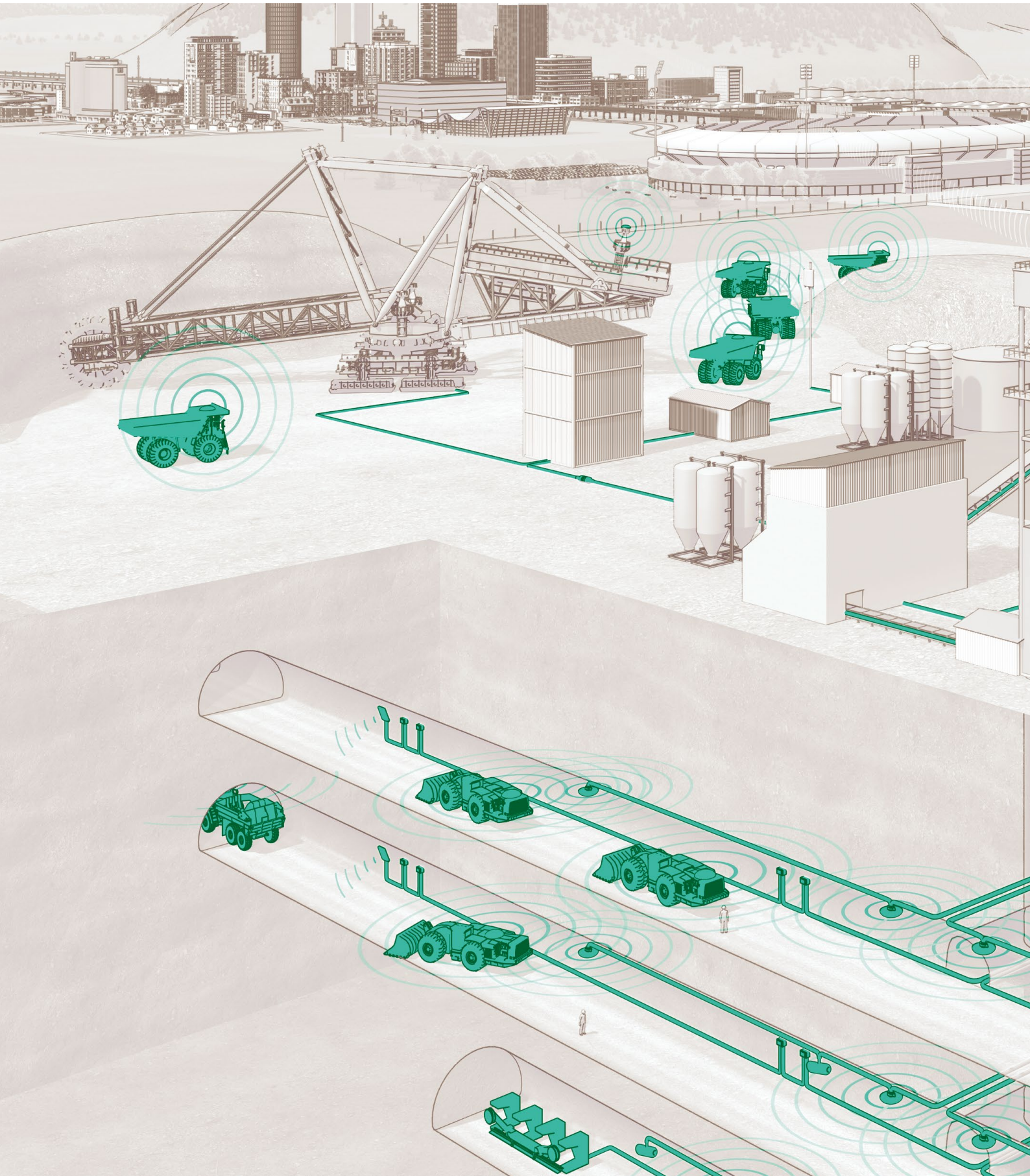
- 690 – 960 / 1710 – 2690 MHz
- Adjust. Electrical Downtilt
0° – 10° T / 0° – 8° T
- Internal RCU
(Remote Control Unit)

NEW



IoT – wireless communication for industry

Although most aspects in IoT are software related, many applications place great emphasis on hardware. Although reliability and performance are critical, the total cost of ownership for a system is also just as important. Due to their sometimes complex processes, industrial



applications can pose unique challenges on radio links. HUBER+SUHNER offers a wide range of antennas that ensure business-critical connectivity even in buildings or locations with less-than-optimal reception.

SENCITY® Road MULTI Vehicle antenna

Type no. 1399.99.0253

p.98



Covering all necessary systems from TETRA, LTE410/LTE450, WiFi, 2G – 5G and GPS. Ultimate flexibility. Hardened cover.

SENCITY® Urban 300 X-Pol 698 – 4200 MHz, 7dBi

Type no. 1399.31.0019

p.42



Includes 4G and 5G bands for IOT applications.

SENCITY® Urban 200 High gain directional antenna 3300 – 4200 MHz



Type no. 1399.17.0272 p.47

Railway trackside antennas

HUBER+SUHNER offers a comprehensive portfolio of antennas for trackside installation, covering analog 450 MHz systems, GSM-R, FRMCS and CBTC systems.





SENCITY® SC LogPer
380 – 520 MHz, 9 dBi

Type no. 91121402 p. 24

- Logarithmic-periodic antenna
- Vertical polarization



SENCITY® SC Panel
X-Pol 698 – 960 MHz
20 dBi

Type no. 1399.31.0250 p. 40

- Elect. downtilt 0° – 8°T
- GSM-R & 900 MHz FRMCS



SENCITY® SC Panel
X-Pol 698 – 2170 MHz
20 dBi

Type no. 1399.31.0251 p. 41

- Elect. downtilt 0° – 8°T
- Dualband GSM-R & FRMCS 1900 MHz

NEW

Critical industry networks

As the transition to renewable energy sources gains speed, so does the need for advanced metering and control of the entire production and distribution network. Of course, this requires the reliable transmission of voice and data communication in both urban and rural areas where signal penetration and availability is not guaranteed. This is proven to be most critical

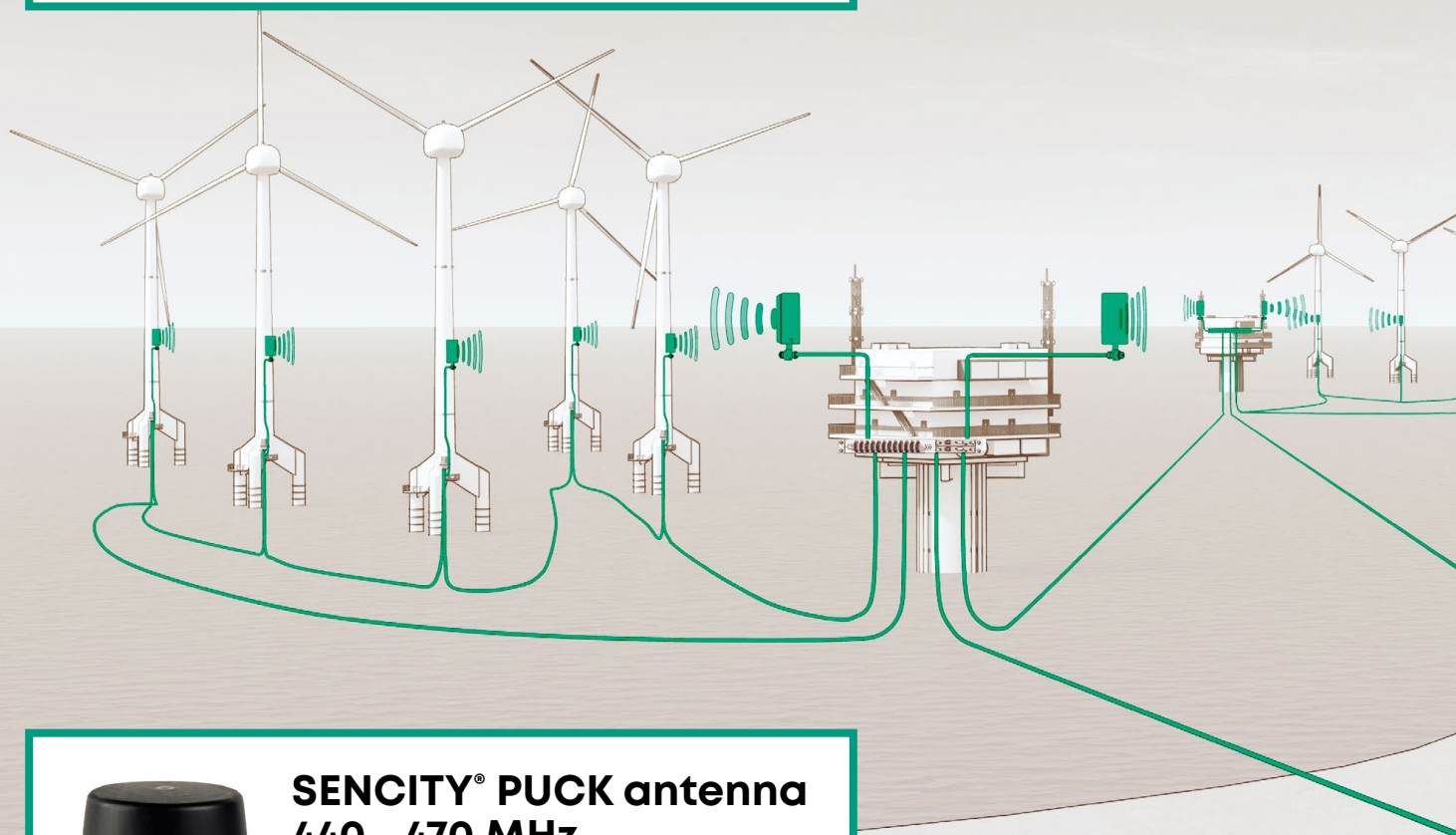


SENCITY® SC X-Pol **380 – 470 MHz, 14 dBi, 0° – 14° T**

Type no. 91121514

p.19

Worlds first antenna Sub-500MHz with electrical tilt incl. remote tilt possibility.
Proven track record in Smart Grid Networks.



SENCITY® PUCK antenna **440 – 470 MHz**

Type no. K7023231

p.36

- Outdoor omni antenna
- Endpoint antenna for smart meters

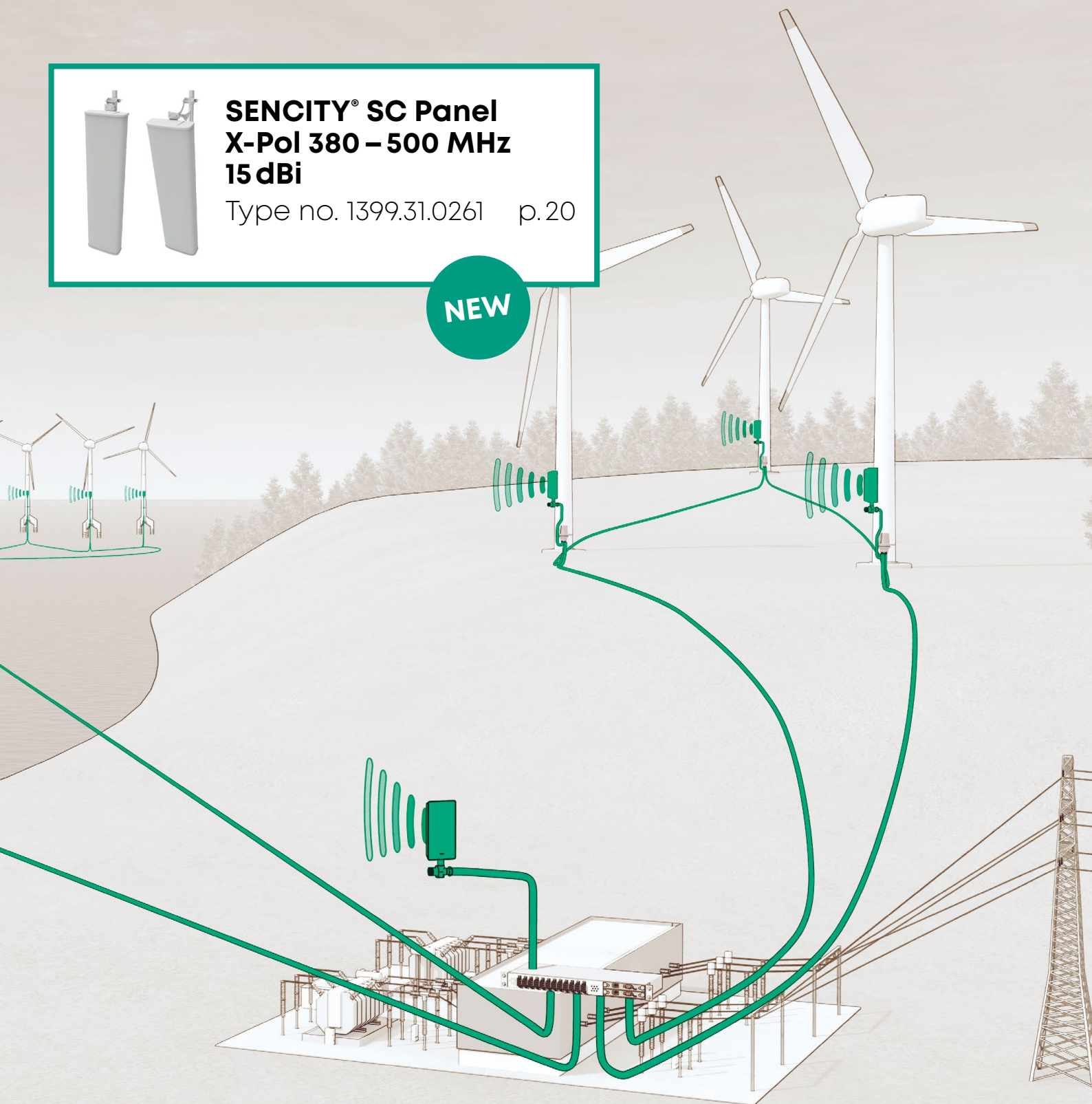
in remote locations like ocean wind parks, offshore platforms, and power plants where operational safety is highly dependent on reliable data transfer over long distances and through harsh environments.

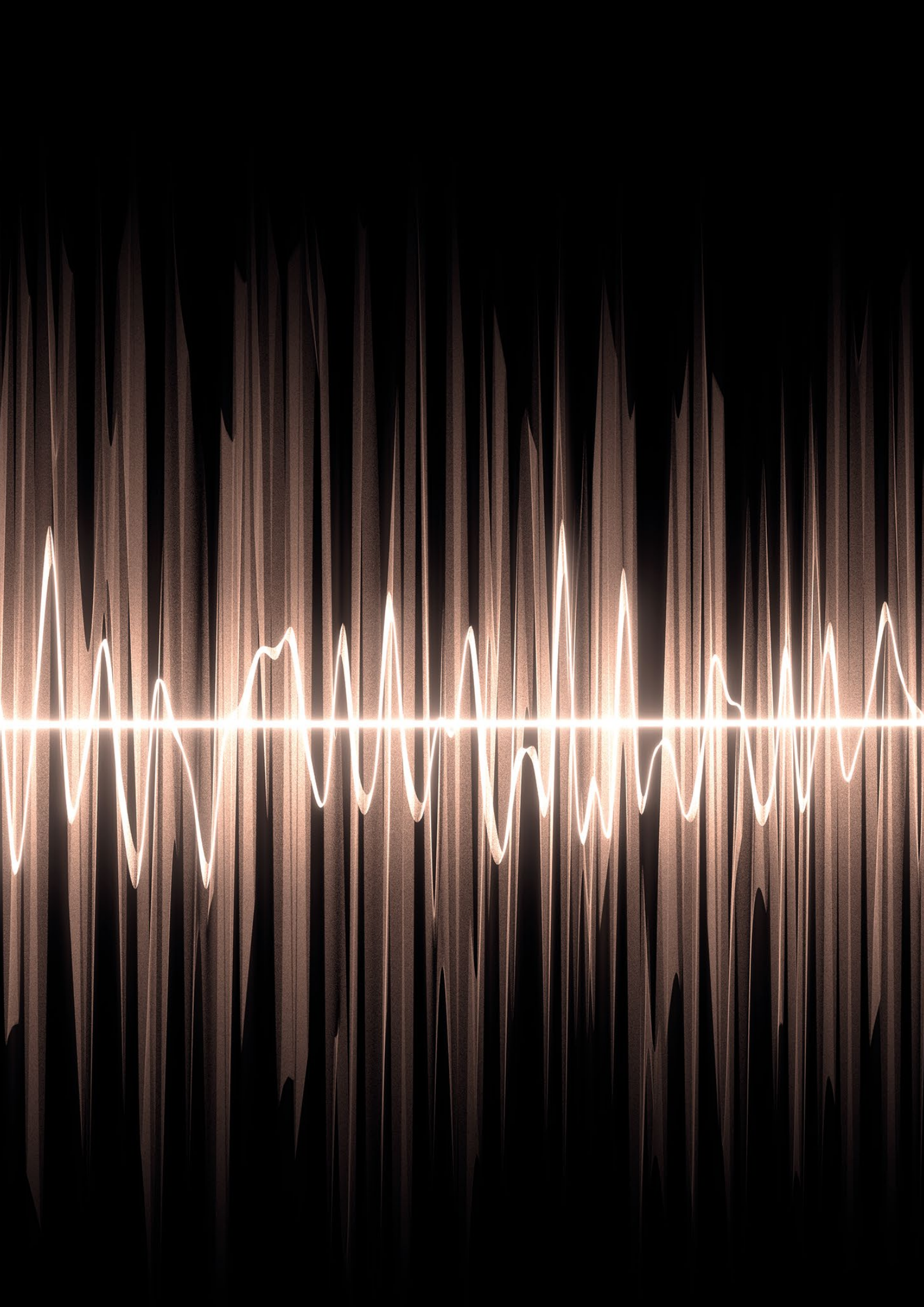


SENCITY® SC Panel
X-Pol 380 – 500 MHz
15dBi

Type no. 1399.31.0261 p.20

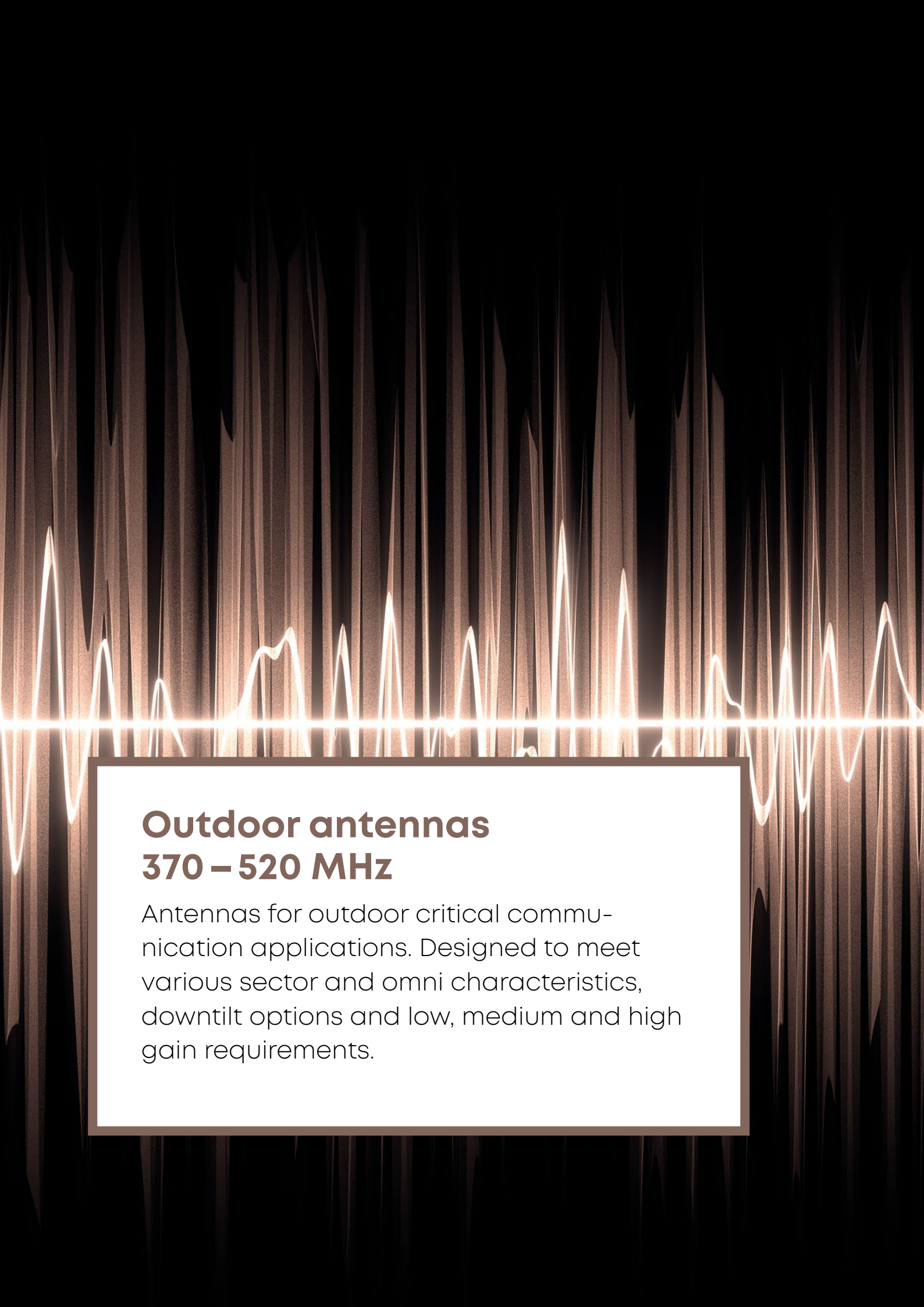
NEW





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The background features a series of vertical, slightly blurred light streaks in shades of brown and gold, creating a sense of depth and movement. A bright, glowing horizontal line with a waveform pattern, resembling a radio signal or a stylized 'E', runs across the middle of the image. The overall color palette is dark, with the light elements providing a strong contrast.

Outdoor antennas

370 – 520 MHz

Antennas for outdoor critical communication applications. Designed to meet various sector and omni characteristics, downtilt options and low, medium and high gain requirements.

Outdoor antennas 370 – 520 MHz

Overview

Directional antennas

Description					Type no.	Height	Input	Page
X-Pol panel	380 – 500 MHz	65°	12 dBi		852626	992 mm	2 × 7/16 female	18
X-Pol panel	380 – 470 MHz	65°	14 dBi	0° – 14° T	91121514	1999 mm	2 × 7/16 female	19
NEW X-Pol panel	380 – 500 MHz	65°	15 dBi		1399.31.0261	2000 mm	2 × 4.3-10 fem.	20
X-Pol panel	380 – 500 MHz	88°	10.5 dBi		852628	1007 mm	2 × 7/16 female	21
X-Pol panel	380 – 500 MHz	88°	13.5 dBi		852629	1997 mm	2 × 7/16 female	22
V-Pol Panel	380 – 500 MHz	65°	12 dBi		91121363	992 mm	1 × 7/16 female	23
Log.-Per.	380 – 520 MHz	87°	9 dBi		91121402	785 mm	1 × 7/16 female	24

Omnidirectional antennas

Description					Type no.	Height	Input	Page
V-Pol Omni	370 – 430 MHz		2 dBi		848114	555 mm	1 × N female	25
V-Pol Omni	406 – 470 MHz		2 dBi		K862232	515 mm	1 × N female	26
V-Pol Omni	380 – 3800 MHz		3 – 8.5 dBi		92210003	540 mm	1 × 4.3-10 fem.	27
V-Pol Omni	380 – 400 MHz		7.5 dBi		K862748	2840 mm	1 × 7/16 female	28
V-Pol Omni	410 – 430 MHz		8 dBi		848657	3114 mm	1 × 7/16 female	29
V-Pol Omni	450 – 470 MHz		8.5 dBi		853266	3113 mm	1 × 7/16 female	30
NEW X-Pol SC Omni-M	380 – 7125 MHz		3 – 6.5 dBi		1399.17.0338	60 mm	2 × N male	31
X-Pol SC Omni-M	380 – 7125 MHz		2 – 6 dBi		1399.17.0340	60 mm	4 × N male	32
SENCITY® SC X-Pol Omni-M portfolio overview								33

Special purpose antennas (e.g. endpoint antennas for smart meters)

Description					Type no.	Height	Input	Page
V-Pol Omni	380 – 430 MHz				98121119	150 mm	1 × N female	34
V-Pol Omni	410 – 470 MHz				K813132	142 mm	1 × N female	35
V-Pol Omni	440 – 470 MHz				K7023231	70 mm	1 × N female	36

Outdoor 370 – 520 MHz

Directional antennas



Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	852626
Frequency range	380 – 500 MHz
Half-power beam width	65°
Gain	12 dBi
Version	7/16 (female)
Height	992 mm
Item no.	84467194

Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 500 MHz
Gain	11.5 dBi	12 dBi
3 dB beamwidth (h)	68°	65°
3 dB beamwidth (v)	37°	32°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	50 °C
Front to back ratio	25 dB
Port isolation	30 dB
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	992 × 492 × 190 mm
Weight	12.0 kg
Connector	2 × 7/16 (female)
Windload	frontal: 500 N at 150 km/h, lateral: 220 N at 150 km/h wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Directional antennas



Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	91121514
Frequency range	380 – 470 MHz
Half-power beam width	65°
Gain	14 dBi
Electrical downtilt	Elect. downtilt 0° – 14° T
Version	7/16 (female)
Height	1999 mm
Description	Adjust. electrical downtilt 0° – 14° T set by hand or by optional RCU (Remote Control Unit)
Item no.	84467229

Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 470 MHz
Gain	13.5 dBi	14 dBi
3 dB beamwidth (h)	66°	62°
3 dB beamwidth (v)	22°	19°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Electrical downtilt	0° – 14° T
Composite power max.	400 W
Ambient temperature	50 °C
Front to back ratio	25 dB
Port isolation	30 dB
IMD level	–150 dBc at 2 × 43 dBm

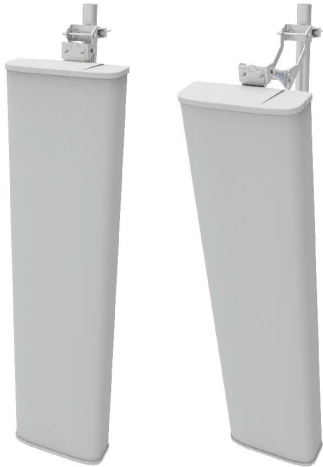
Mechanical data	
Dimensions (height × width × depth)	1999 × 575 × 199 mm
Weight	22.0 kg
Connector	2 × 7/16 (female)
Windload	frontal: 1160 N at 150 km/h, lateral: 480 N at 150 km/h wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate material	aluminium

Outdoor 370 – 520 MHz

Directional antenna



Ordering information	SENCITY® SC Panel
	X-Pol Panel antenna
Type no.	1399.31.0261
Frequency range	380 – 500 MHz
Half-power beam width	65°
Gain	15 dBi
Version	4.3-10 (female)
Height	2000 mm
Description	Meets ETSI 300 019-1-4 class 4.1E
Item no.	85240962

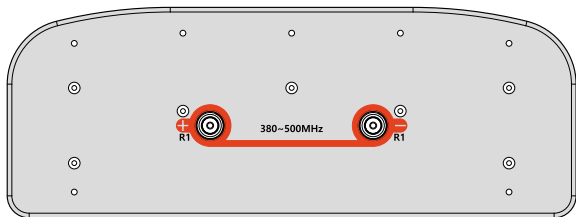
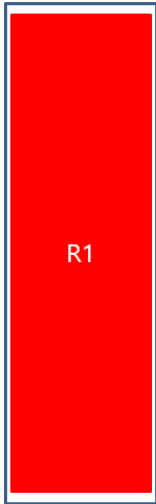
Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 500 MHz
Gain	14.0 dBi ±0.6	14.6 dBi ±0.6
3 dB beamwidth (h)	67° ±4	64° ±4
3 dB beamwidth (v)	18.8° ±1.5	16.5° ±1.7

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	25 °C
Front to back ratio	25 dB
Port isolation	30 dB

Mechanical data	
Dimensions (height × width × depth)	1995 × 480 × 170 mm
Weight	25.0 kg
Connector	2 × 4.3-10 (female)
Windload	frontal: 779 N at 150 km/h, lateral: 337 N at 150 km/h wind speed survival: 216 km/h

Environmental data	
Environmental conditions	outdoor
Remarks	Environmental tests: ETS 300 019-2-4

Material data	
Radome colour	grey
Radome material	Fiber-reinforced plastic (FRP)



Directional antennas



Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	852628
Frequency range	380 – 500 MHz
Half-power beam width	88°
Gain	10.5 dBi
Version	7/16 (female)
Height	1007 mm
Item no.	84467198

Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 500 MHz
Gain	10 dBi	10.5 dBi
3 dB beamwidth (h)	88°	86°
3 dB beamwidth (v)	37°	32°
Port isolation	40 dB	35 dB

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	50 °C
Front to back ratio	20 dB
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	1007 × 317 × 193 mm
Weight	10.5 kg
Connector	2 × 7/16 (female)
Windload	frontal: 420 N at 150 km/h, lateral: 220 N at 150 km/h wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate material	aluminium

Outdoor 370 – 520 MHz

Directional antennas



Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	852629
Frequency range	380 – 500 MHz
Half-power beam width	88°
Gain	13.5 dBi
Version	7/16 (female)
Height	1997 mm
Item no.	84467202

Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 500 MHz
Gain	13 dBi	13.5 dBi
3 dB beamwidth (h)	88°	86°
3 dB beamwidth (v)	20°	17°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	50 °C
Front to back ratio	20 dB
Port isolation	30 dB
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	1997 × 317 × 193 mm
Weight	18.5 kg
Connector	2 × 7/16 (female)
Windload	frontal: 890 N at 150 km/h, lateral: 480 N at 150 km/h wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Directional antennas



Ordering information	SENCITY® SC Panel
	V-Pol panel antenna
Type no.	91121363
Frequency range	380 – 500 MHz
Half-power beam width	65°
Gain	12 dBi
Version	7/16 (female)
Height	992 mm
Item no.	84467208

Electrical data per band	Band 1	Band 2
Frequency	380 – 430 MHz	430 – 500 MHz
Gain	11.5 dBi	12 dBi
3 dB beamwidth (h)	68°	63°
3 dB beamwidth (v)	37°	32°
Front to back ratio	18 dB	20 dB

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	50 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	992 × 492 × 190 mm
Weight	12.0 kg
Connector	1 × 7/16 (female)
Windload	frontal: 500 N at 150 km/h, lateral: 220 N at 150 km/h wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Outdoor 370 – 520 MHz

Directional antennas



Ordering information	SENCITY® SC LogPer Logarithmic-periodic antenna Vertical polarization
Type no.	91121402
Frequency range	380 – 520 MHz
Half-power beam width	87°
Gain	9 dBi
Version	7/16 (female)
Height	785 mm
Item no.	84467223

Electrical data per band	Band 1	Band 2	Band 3
Frequency	380 – 410 MHz	410 – 470 MHz	470 – 520 MHz
Gain	9.2 dBi	9 dBi	8.7 dBi
3 dB beamwidth (h)	80°	85°	88°
3 dB beamwidth (v)	61°	60°	59°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Composite power max.	500 W
Ambient temperature	50 °C

Mechanical data	
Dimensions (height × width × depth)	785 × 400 × 400 mm
Weight	6.0 kg
Connector	1 × 7/16 (female)
Windload	frontal: 54 N at 150 km/h, lateral: 150 N at 150 km/h wind speed survival: 180 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	white
Radome material	Glass Reinforced Plastic (GRP)

Omnidirectional antennas



Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	848114
Frequency range	370 – 430 MHz
Gain	2 dBi
Version	N (female)
Height	555 mm
Item no.	84467190

Electrical data per band	Band 1	Band 2
Frequency	370 – 380 MHz	380 – 430 MHz
VSWR	1.6	1.5

Electrical data	
Impedance	50 Ohm
Gain	2 dBi
Composite power max.	100 W
Ambient temperature	50 °C
IMD level	–150 dBc at 2 × 37 dBm

Mechanical data	
Dimensions (height × diameter)	555 × 21 mm
Weight	1.0 kg
Connector	1 × N (female)
Windload	frontal: 20 N at 150 km/h, wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Omnidirectional antennas



Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	K862232
Frequency range	406 – 470 MHz
Gain	2 dBi
Version	N (female)
Height	515 mm
Item no.	84467243

Electrical data	
Frequency	406 – 470 MHz
VSWR	1.5
Impedance	50 Ohm
Gain	2 dBi
Composite power max.	100 W
Ambient temperature	50 °C
IMD level	–150 dBc at 2 × 37 dBm

Mechanical data	
Dimensions (height × diameter)	515 × 21 mm
Weight	0.8 kg
Connector	1 × N (female)
Windload	frontal: 20 N at 150 km/h, wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Omnidirectional antennas



Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	92210003
Frequency range	380 – 3800 MHz
Gain	3 – 8.5 dBi
Version	4.3-10 (female)
Height	540 mm
Description	Small ground plane and excellent coverage
Item no.	84467565

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	380 – 400 MHz	400 – 450 MHz	450 – 470 MHz	694 – 746 MHz
Gain	3 dBi	4 dBi	5 dBi	6 dBi
	Band 5	Band 6	Band 7	
Frequency	746 – 960 MHz	1200 – 2700 MHz	3300 – 3800 MHz	
Gain	7 dBi	8 dBi	8.5 dBi	

Electrical data	
VSWR	1.7
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	540 × 60 mm
Weight	0.5 kg
Connector	1 × 4.3-10 (female)

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Base material	weather-proof aluminum
Radome material	UV protected plastic

Omnidirectional antennas



Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	K862748
Frequency range	380 – 400 MHz
Gain	7.5 dBi
Version	7/16 (female)
Height	2840 mm
Item no.	84467245

Electrical data	Band 1
Frequency	380 – 400 MHz
VSWR	1.5
Impedance	50 Ohm
Gain	7.5 dBi
Composite power max.	500 W
Ambient temperature	50 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	2840 × 112 × 148 mm
Weight	8.0 kg
Connector	1 × 7/16 (female)
Windload	frontal: 200 N at 150 km/h, wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Omnidirectional antennas



Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	848657
Frequency range	410 – 430 MHz
Gain	8 dBi
Electrical downtilt	Fixed elect. downtilt 8.5°
Version	7/16 (female)
Height	3114 mm
Item no.	84467192

Electrical data		Band 1
Frequency		410 – 430 MHz
VSWR		1.5
Impedance		50 Ohm
Gain		8 dBi
Composite power max.		500 W
Ambient temperature		50 °C
Electrical downtilt		8.5°
IMD level		–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	3114 × 51 mm
Weight	8.0 kg
Connector	1 × 7/16 (female)
Windload	frontal: 220 N at 150 km/h, wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Omnidirectional antennas



Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	853266
Frequency range	450 – 470 MHz
Gain	8.5 dBi
Version	7/16 (female)
Height	3113 mm
Item no.	84467205

Electrical data	
Frequency	450 – 470 MHz
VSWR	1.5
Impedance	50 Ohm
Gain	8.5 dBi
Composite power max.	500 W
Ambient temperature	50 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	3113 × 51 mm
Weight	8.0 kg
Connector	1 × 7/16 (female)
Windload	frontal: 220 N at 150 km/h, wind speed survival: 200 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	grey
Back plate / base plate material	aluminium

Omnidirectional antennas



Ordering information	SENCITY® SC Omni-M
	Rugged Omni antenna
Type no.	1399.17.0338
Frequency range	380 – 7125 MHz
Gain	3 – 6.5 dBi
Version	N (female)
Height	60 mm
Description	
• For installation on outdoor cabinets • Supports TETRA with up to 2 radiators plus 2G/3G/4G/5G cellular bands • Low profile housing. Single hole mounting	
Item no.	85185570

Electrical data per band	Band 1	Band 2	Band 3
Frequency	380 – 470 MHz	694 – 960 MHz	1710 – 2170 MHz
VSWR	2.5	2.1	2.1
Gain	3 dBi	4.5 dBi	5 dBi
Composite power max.	40 W	40 W	40 W
Port Isolation	3 dB	8 dB	15 dB
	Band 4	Band 5	Band 6
Frequency	2400 – 2690 MHz	3400 – 4200 MHz	4200 – 7125 MHz
VSWR	2.1	2.1	2.1
Gain	5 dBi	6 dBi	6.5 dBi
Composite power max.	40 W	30 W	25 W
Port Isolation	15 dB	20 dB	20 dB

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × diameter)	60 × 210 mm
Mounting breakthrough	Ø 30 mm
Weight	0.75 kg
Connector	2 × N (female)

Environmental data	
Environmental conditions	indoor/outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	PC (Polycarbonate)

Outdoor 370 – 520 MHz

Omnidirectional MIMO antenna



Ordering information	SENCITY® SC OMNI-M antenna
Type no.	1399.17.0340
Frequency range	380 – 7125 MHz
Gain	2 – 6 dBi
Version	N (female)
Height	60 mm
Description • Rugged omni-directional antenna for installation on outdoor cabinets • Supports TETRA, LTE450, 2G/3G/4G/5G cellular, Wifi 2.4/5 GHz, Wifi 6E • 4 separate ports for 2x2 TETRA/cellular MIMO and 2x2 Wifi MIMO • Meets ETSI 300 019-1-4 class 4.1E • Low profile housing, single hole mounting, easy cabling feedthrough	
Item no.	85185573

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Name	TETRA/LTE450	Cellular	Cellular	Cellular
Frequency	380 – 470 MHz	694 – 960 MHz	1350 – 2700 MHz	3300 – 4200 MHz
VSWR	2.5	2	2	2
Gain	3 dBi	2 dBi	4 dBi	4 dBi
Port isolation (dB)	3 dBi	8 dBi	15 dBi	20 dBi
Composite power max.	40 W	40 W	40 W	40 W
	Band 5	Band 6	Band 7	
Name	Cellular	Wi-Fi	Wi-Fi	
Frequency	4900 – 7125 MHz	2400 – 2500 MHz	4900 – 7125 MHz	
VSWR	2	2	2	
Gain	5 dBi	6 dBi	6 dBi	
Port isolation (dB)	20 dBi	20 dBi	20 dBi	
Composite power max.	40 W	30 W	30 W	

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × diameter)	60 × 210 mm
Weight	1.1 kg
Connector	4 × N (female)

Environmental data	
Environmental conditions	outdoor
IP rating	IP68, IP69k
RoHS 2011/65/EU	compliant

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

Full portfolio of types see page 31

SENCITY® SC Omni-M portfolio

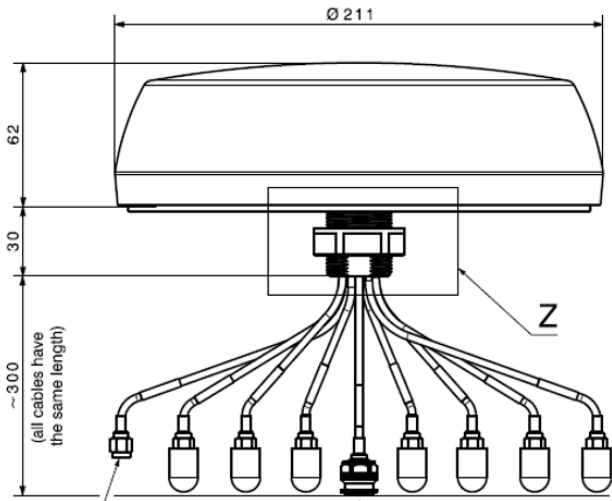
The SENCITY® SC Omni-M portfolio is designed for 2×2, 3×3 or 4×4 MIMO operation in cellular and Wi-Fi applications and in addition comes with SISO or 2×2 TETRA/LTE450 options. It offers a variety of combinations of up to 9 radiators within one housing and comes with an GNSS option for L1, L2, L5 operation.

- For all versions is applicable:
- Frequency Range 380 – 7125 MHz
 - Cable length 500 mm
 - Connector Type TNC (GNSS)
 - Connector Type N (all others)
 - Radome colour RAL 7044 (light grey)

The standard versions are listed below:

No of ports				Product ID	Item No
Tetra, CDMA/ LTE410/450	Cellular & Wi-Fi	GNSS (L1)	GNSS (L1+L2+L5)		
380 – 470MHz	694 – 7125 MHz	1559 – 1610 MHz	1164 – 1279 MHz & 1559 – 1610 MHz		
1		0	0	1399.17.0330	85185546
1		0	1	1399.99.0331	85185549
1		1	0	1399.99.0330	85185551
1	2	0	0	1399.17.0332	85185553
1	2	0	1	1399.99.0333	85185555
1	2	1	0	1399.99.0332	85185556
1	3	0	0	1399.17.0334	85185558
1	3	0	1	1399.99.0335	85185561
1	3	1	0	1399.99.0334	85185563
1	4	0	0	1399.17.0336	85185565
1	4	0	1	1399.99.0337	85185568
1	4	1	0	1399.99.0336	85185569
2		0	0	1399.17.0338	85185570
2		0	1	1399.99.0339	85185571
2		1	0	1399.99.0338	85185572
2	2	0	0	1399.17.0340	85185573
2	2	0	1	1399.99.0341	85185574
2	2	1	0	1399.99.0340	85185575
2	3	0	0	1399.17.0342	85192514
2	3	0	1	1399.99.0343	85192515
2	3	1	0	1399.99.0342	85192516
2	4	0	0	1399.17.0344	85192517
2	4	0	1	1399.99.0345	85192518
2	4	1	0	1399.99.0344	85192520

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



Special purpose antennas



Ordering information	SENCITY® SC
	Special Purpose
	V-Pol Omni-directional vehicle antenna
Type no.	98121119
Frequency range	380 – 430 MHz
Version	N (female)
Height	150 mm
Description	
• For special purpose installations • Option as vehicle antenna • Meets EN 50155 and fire retardant acc. EN 45545-2	
Item no.	84468948

Electrical data		Band 1
Band name		Tetra
Frequency		380 – 430 MHz
VSWR		1.7
Impedance		50 Ohm
Gain		dB 0 (ref. to the quarter-wave antenna)
Composite power max.		100 W
Ambient temperature		50 °C

Mechanical data	
Dimensions (height × width × depth)	150 × 145 × 85 mm
Weight	0.5 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	outdoor
Operation temperature	–40 to 85 °C
Storage temperature	–55 to 85 °C
IP rating	IP66
Flammability rating	UL 94-HB
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	black
Back plate / base plate material	aluminium

Special purpose antennas



Ordering information	SENCITY® SC
	Special Purpose
	V-Pol Omni-directional vehicle antenna
Type no.	K813132
Frequency range	410 – 470 MHz
Version	N (female)
Height	142 mm
Description	
• For special purpose installations • Option as vehicle antenna • Meets EN 50155 and fire retardant acc. EN 45545-2	
Item no.	84468534

Electrical data		Band 1
Band name		Tetra
Frequency		410 – 470 MHz
VSWR		1.5
Impedance		50 Ohm
Gain		dB 0 (ref. to the quarter-wave antenna)
Composite power max.		170 W
Ambient temperature		50 °C

Mechanical data	
Dimensions (height × width × depth)	142 × 145 × 80 mm
Weight	0.5 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	outdoor
Operation temperature	–40 to 85 °C
Storage temperature	–55 to 85 °C
IP rating	IP66
Flammability rating	UL 94-HB
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Back plate / base plate colour	black
Back plate / base plate material	aluminium

Special purpose antennas



Ordering information	SENCITY® PUCK antenna
Type no.	K7023231
Frequency range	440 – 470 MHz
Version	N (female)
Height	70 mm
Description	• Outdoor omni antenna • Endpoint antenna for smart meters
Item no.	84459192

Electrical data per band	Band 1	Band 2	Band 3
Frequency	440 – 450 MHz	450 – 465 MHz	465 – 470 MHz
VSWR	1.7	1.5	1.7

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

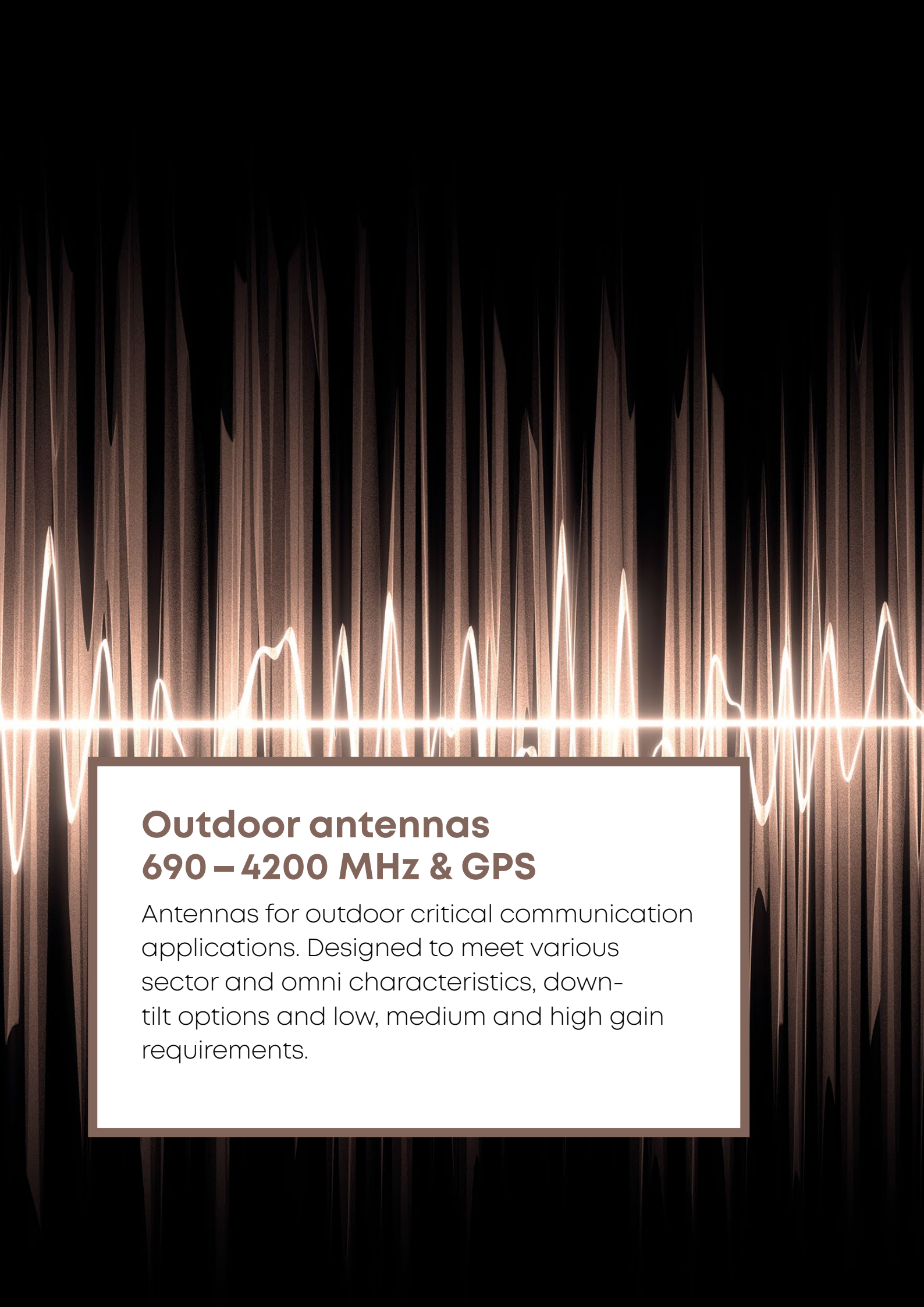
Mechanical data	
Dimensions (height x diameter)	70 x 110 mm
Mounting breakthrough	Ø 17 mm
Weight	0.4 kg
Connector	1 x N (female)

Environmental data	
Environmental conditions	outdoor
IP rating	IP56
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Base plate colour	black
Base plate material	Aluminum



Antenna K7023231 used as End-Point Antenna in LTE450MHz Smart Meter Network.

The background features a dark, textured surface with numerous vertical, slightly wavy light streaks in shades of brown and gold. A bright, glowing horizontal line with a waveform pattern, resembling a radio signal or a stylized 'E' field, runs across the middle of the image.

Outdoor antennas 690 – 4200 MHz & GPS

Antennas for outdoor critical communication applications. Designed to meet various sector and omni characteristics, down-tilt options and low, medium and high gain requirements.

Outdoor antennas 690 – 4200 MHz

Overview

Directional antennas

	Description					Type no.	Height	Input	Page
NEW	X-Pol panel	698 – 960 MHz	33°	20 dBi		1399.31.0250	2695 mm	2 × 4.3-10 fem.	40
NEW	X-Pol panel	698 – 960 MHz 1710 – 2170 MHz	33°	20 dBi		1399.31.0251	2695 mm	2 × 4.3-10 fem.	41
	X-Pol panel	698 – 4200 MHz	85°/65°	12 dBi		1399.31.0019	200 mm	2 × 4.3-10 fem.	42
	X-Pol panel	698 – 960 MHz	65°	16 dBi	0° – 14° T	1399.31.0200	1850 mm	2 × 4.3-10 fem.	43
NEW	XX-Pol panel	690 – 960 MHz 1710 – 2690 MHz	65°	16.5 dBi	0° – 10° T	91121777V02	2625 mm	4 × 4.3-10 fem.	44
	X-Pol panel	1695 – 2690 MHz 3410 – 4200 MHz	70°/65°	7 – 8.5 dBi		1399.17.0248	184.8 mm	2 × N female	45
	X-Pol panel	1695 – 2690 MHz 3300 – 4200 MHz	110°	4.8 – 5.9 dBi		1399.17.0250	184.8 mm	2 × N female	46
	XXXX-Pol panel	3300 – 4200 MHz		11 dBi		1399.17.0272	184.8 mm	4 × N female	47

Omnidirectional antennas

	Description					Type no.	Height	Input	Page
	V-Pol Omni	380 – 3800 MHz		3 – 8.5 dBi		92210003	540 mm	1 × 4.3-10 fem.	48
NEW	X-Pol SC Omni-M	380 – 7125 MHz		3 – 6.5 dBi		1399.17.0338	60 mm	2 × N male	49
	V-Pol Omni	698 – 2690 MHz		2 – 5 dBi		1399.19.0225	33.2 mm	1 × SMA male	50
	V-Pol Omni	790 – 960 MHz 1710 – 2690 MHz		2 – 3 dBi		1399.17.0231	263 mm	1 × N female	51
	GNSS ANT L1+L2 3.3V	1227.6/1588 MHz		32 dBi		85160014	66.2 mm	TNC female	52

Special purpose antennas

	Description					Type no.	Height	Input	Page
	V-Pol Omni	698 – 960 MHz 1710 – 2690 MHz 4900 – 5935 MHz		5 – 7 dBi		1399.99.0039	82 mm	SMA, TNC	54
	FM Radio	88 – 108 MHz				9091.99.0246	425 mm		55
	TETRA	380 – 430 MHz				9091.99.0247	145 mm		56
	TETRA	450 – 470 MHz				9091.99.0248	120 mm		57
	V-Pol Omni	698 – 960 MHz 1710 – 2690 MHz		4 – 6 dBi		1399.99.0119	88 mm	2 × SMA male	58
	V-Pol Omni	698 – 960 MHz 1710 – 2690 MHz		5 – 7 dBi		1399.99.0129	88 mm	SMA, TNC	59

Directional antennas



Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	1399.31.0250
Frequency range	698 – 960 MHz
Half-power beam width	33°
Gain	20 dBi
Electrical downtilt	Elect. downtilt 0° – 8° T
Version	4.3-10 (female)
Height	2695 mm
Item no.	85226004

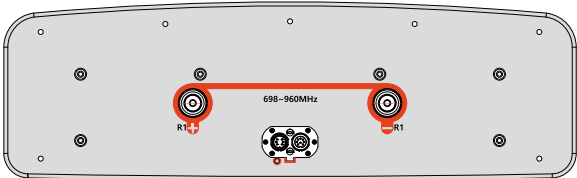
Electrical data per band	Band 1	Band 2	Band 3
Frequency	698 – 806 MHz	790 – 894 MHz	880 – 960 MHz
Gain	19.2 dBi	19.9 dBi	20.5 dBi
3 dB beamwidth (h)	36°	33°	30°
3 dB beamwidth (v)	8.4°	7.6°	7.0°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Max. effective comb. power per port	300 W
Ambient temperature	25 °C
Front to back ratio	25 dB
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	2695 × 565 × 170 mm
Weight	31.0 kg
Connector	2 × 4.3-10 (female)
Windload	frontal: 1266.6 N at 150 km/h, lateral: 495.3 N at 150 km/h wind speed survival: 216 km/h

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Fiber-reinforced plastic (FRP)



Directional antennas



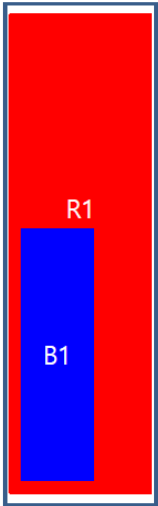
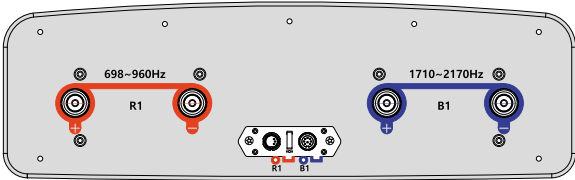
Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	1399.31.0251
Frequency range	698 – 2170 MHz
Half-power beam width	33°
Gain	20 dBi
Electrical downtilt	Elect. downtilt 0° – 8° T
Version	4.3-10 (female)
Height	2695 mm

Electrical data per band	Band 1	Band 2	Band 3
Frequency	698 – 806 MHz	790 – 894 MHz	880 – 960 MHz
Gain	18.8 dBi	19.5 dBi	20.0 dBi
3 dB beamwidth (h)	36°	33°	30°
3 dB beamwidth (v)	8.4°	7.6°	7.0°
	Band 4	Band 5	Band 6
Frequency	1710 – 1880 MHz	1850 – 1990 MHz	1920 – 2170 MHz
Gain	20.0 dBi	20.4 dBi	20.8 dBi
3 dB beamwidth (h)	34°	32°	30°
3 dB beamwidth (v)	6.8°	6.4°	6.1°

Electrical data		Mechanical data	
VSWR	1.5	Dimensions (height × width × depth)	2695 × 565 × 170 mm
Impedance	50 Ohm	Weight	33.5 kg
Max. effective comb. power per port	300 W	Connector	2 × 4.3-10 (female)
Ambient temperature	25 °C	Windload	frontal: 1266.6 N at 150 km/h, lateral: 495.3 N at 150 km/h wind speed survival: 216 km/h
Front to back ratio	27 dB		
IMD level	–150 dBc at 2 × 43 dBm		

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Fiber-reinforced plastic (FRP)



Directional antennas



Ordering information	SENCITY® Urban 300
	X-Pol panel antenna
Type no.	1399.31.0019
Frequency range	698 – 4200 MHz
Half-power beam width	85°/65°
Gain	6 – 7 dBi
Version	4.3-10 (female)
Height	200 mm
Description	- Includes 4G and 5G bands for IOT applications - Supports MIMO 2x2

Electrical data per band	Band 1	Band 2	Band 3
Frequency	698 – 960 MHz	1695 – 2700 MHz	3100 – 4200 MHz
Gain	6.5 dBi	7 dBi	6 dBi
3 dB beamwidth (h)	85°	65°	65°
3 dB beamwidth (v)	80°	65°	65°
Port isolation	18 dB	20 dB	22 dB

Electrical data	
VSWR	2
Impedance	50 Ohm
Combined power per port max.	50 W
Ambient temperature	25 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	200 × 260 × 90 mm
Weight	1.1 kg
Connector	2 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–40 to 70 °C
IP rating	IP67
Flammability rating	UL 94-V0
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	PC (Polycarbonate)

Directional antennas



Ordering information	SENCITY® SC Panel
	X-Pol panel antenna
Type no.	1399.31.0200
Frequency range	698 – 960 MHz
Half-power beam width	65°
Gain	16 dBi
Version	4.3-10 (female)
Height	1850 mm
Description	Adjust. electrical downtilt 0° – 10° T
Item no.	85184054

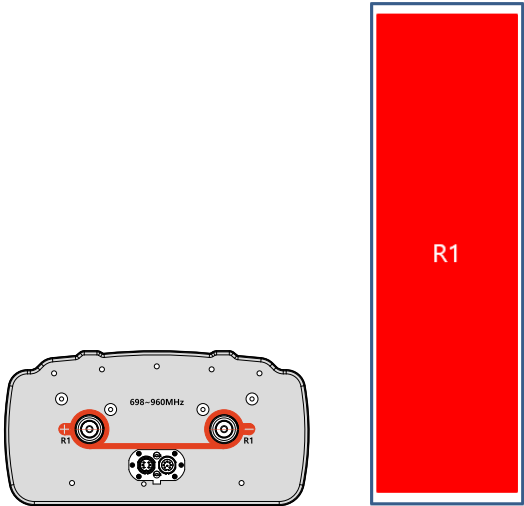
Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	698 – 803 MHz	791 – 862 MHz	824 – 894 MHz	880 – 960 MHz
Gain	15.6 dBi	15.9 dBi	16 dBi	16.3 dBi
3 dB beamwidth (h)	68°	64°	62°	59°
3 dB beamwidth (v)	12.4°	11.3°	10.5°	10.0°

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Electrical downtilt	0° – 10° T
Port isolation	30 dB
Combined power per port max. eff.	300 W
Ambient temperature	25 °C
Passive intermodulation	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	1850 × 260295× 145 mm
Weight	12.0 kg
Connector	2 × 4.3-10 (female)
Windload	frontal: 712 N at 150 km/h, lateral: 350 N at 150 km/h wind speed survival: 240 km/h

Environmental data	
Environmental conditions	outdoor
Operation temperature	–55 to 60 °C
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	ASA (UV resistant)
Top/bottom cover material	PC (FI)



Directional antennas

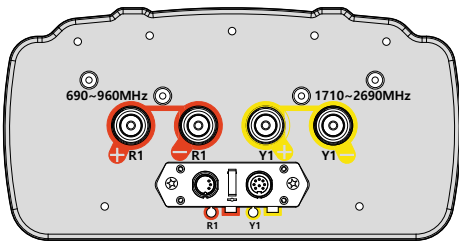


Ordering information	SENCITY® SC Panel
	XX-Pol Panel antenna
Type no.	91121777V02
Frequency range	690 – 960 / 1710 – 2690 MHz
Half-power beam width	65°
Gain	16.5 dBi
Electrical downtilt	Elect. downtilt 0° – 10°T
Version	4.3-10 (female)
Height	2625 mm
Description	• Adjust. Electrical Downtilt 0°–10°T/ 0°–8°T • Internal RCU (Remote Control Unit)
Item no.	85254056

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	690 – 806 MHz	790 – 894 MHz	880 – 960 MHz	1710 – 1880 MHz
Gain	16.1 dBi	16.5 dBi	16.7 dBi	17.3 dBi
3 dB beamwidth (h)	66°	65°	63°	66°
3 dB beamwidth (v)	8.6°	7.7°	7.0°	7.2°
Composite power max.	300 W	300 W	300 W	300 W
	Band 5	Band 6	Band 7	Band 8
Frequency	1850 – 1990 MHz	1920 – 2170 MHz	2300 – 2400 MHz	2500 – 2690 MHz
Gain	17.7 dBi	18.2 dBi	18.7 dBi	18.6 dBi
3 dB beamwidth (h)	64°	62°	57°	59°
3 dB beamwidth (v)	6.6°	6.3°	5.7°	5.1°
Composite power max.	300 W	300 W	300 W	300 W

Electrical data	
VSWR	1.5
Impedance	50 Ohm
Ambient temperature	25 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	2625 × 295 × 145 mm
Weight	23.5 kg
Connector	4 × 4.3-10 (female)
Windload	frontal: 722.5 N, lateral: 429.1 N, at 150 km/h; wind speed survival: 216 km/h



Directional antennas



Ordering information	SENCITY® Urban 200
	X-Pol panel antenna
Type no.	1399.17.0248
Frequency range	1695 – 2690 MHz 3410 – 4200 MHz
Half-power beam width	70°/65°
Gain	7 – 8.5 dBi
Version	N (female)
Height	184.8 mm
Description	• Supports 2x2 MIMO configurations • Low PIM
Item no.	85110146

Electrical data per band	Band 1	Band 2	Band 3
Frequency	1695 – 1920 MHz	1920 – 2180 MHz	2300 – 2690 MHz
Gain	7 dBi	7 dBi	7.5 dBi
3 dB beamwidth (h)	75°	75°	70°
3 dB beamwidth (v)	80°	90°	70°
Composite power max.	125 W	125 W	110 W
	Band 4	Band 5	
Frequency	3410 – 3800 MHz	3800 – 4200 MHz	
Gain	7.5 dBi	8.5 dBi	
3 dB beamwidth (h)	60°	65°	
3 dB beamwidth (v)	60°	50°	
Composite power max.	95 W	90 W	

Electrical data	
VSWR	2
Impedance	50 Ohm
Ambient temperature	25 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	184.8 × 164.6 × 84.2 mm
Weight	0.5 kg
Connector	2 × N (female)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP66
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	PC (Polycarbonate)

Directional antennas



Ordering information	SENCITY® Urban 200
	X-Pol panel antenna
Type no.	1399.17.0250
Frequency range	1695 – 2690 MHz 3300 – 4200 MHz
Half-power beam width	110°
Gain	4.8 – 5.9 dBi
Version	N (female)
Height	184.8 mm
Description	• Supports 2x2 MIMO configurations • Low PIM
Item no.	85110147

Electrical data per band	Band 1	Band 2	Band 3
Frequency	1695 – 1920 MHz	1920 – 2180 MHz	2300 – 2690 MHz
Gain	5.7 dBi	4.8 dBi	5 dBi
3 dB beamwidth (h)	100°	120°	100°
3 dB beamwidth (v)	105°	120°	95°
Composite power max.	125 W	125 W	110 W
	Band 4	Band 5	
Frequency	3300 – 3800 MHz	3800 – 4200 MHz	
Gain	5.9 dBi	4.9 dBi	
3 dB beamwidth (h)	110°	120°	
3 dB beamwidth (v)	65°	85°	
Composite power max.	95 W	90 W	

Electrical data	
VSWR	2
Impedance	50 Ohm
Ambient temperature	25 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	184.8 × 164.6 × 84.2 mm
Weight	0.5 kg
Connector	2 × N (female)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP66
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	PC (Polycarbonate)

Directional antennas



Ordering information	SENCITY® Urban 200
	High gain directional antenna
Type no.: Version	1399.17.0272
Frequency range	3300 – 4200 MHz multi-band
Gain	11 dBi
Height	184.8 mm
Item no.	85178889

Electrical data per band	Band 1	Band 2
Frequency	3300 – 3800 MHz	3800 – 4200 MHz
Isolation between Ports	23	22
Composite power max.	95 W	90 W

Electrical data	
Impedance	50 Ohm
VSWR	1.8
Gain	11 dBi
Ambient temperature	25 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	184.8 × 164.6 mm × 84.2 mm (height x width x depth)
Weight	0.59 kg
Connector	4 × N (female)

Environmental data	
Environmental conditions	indoor/outdoor
RoHS 2011/65/EU	compliant
Flammability	UL94-V0
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant

Material data	
Radome material	polycarbonate
Colour	RAL 7035 (light gray)

Omnidirectional antennas



Ordering information	SENCITY® SC Omni
	V-Pol Omni antenna
Type no.	92210003
Frequency range	380 – 3800 MHz
Gain	3 – 8.5 dBi
Version	4.3-10 (female)
Height	540 mm
Description	Small ground plane and excellent coverage
Item no.	84467565

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	380 – 400 MHz	400 – 450 MHz	450 – 470 MHz	694 – 746 MHz
Gain	3 dBi	4 dBi	5 dBi	6 dBi
	Band 5	Band 6	Band 7	
Frequency	746 – 960 MHz	1200 – 2700 MHz	3300 – 3800 MHz	
Gain	7 dBi	8 dBi	8.5 dBi	

Electrical data	
VSWR	1.7
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C
IMD level	–150 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	540 × 60 mm
Weight	0.5 kg
Connector	1 × 4.3-10 (female)

Environmental data	
Environmental conditions	outdoor
RoHS 2011/65/EU	compliant

Material data	
Base material	weather-proof aluminum
Radome material	UV protected plastic

Outdoor 690 – 4200 MHz

Omnidirectional antennas



NEW

Ordering information	SENCITY® SC Omni-M
	Rugged Omni antenna
Type no.	1399.17.0338
Frequency range	380 – 7125 MHz
Gain	3 – 6.5 dBi
Version	N (female)
Height	60 mm
Description	
• For installation on outdoor cabinets • Supports TETRA with up to 2 radiators plus 2G/3G/4G/5G cellular bands • Low profile housing. Single hole mounting	
Item no.	85185570

Electrical data per band	Band 1	Band 2	Band 3
Frequency	380 – 470 MHz	694 – 960 MHz	1710 – 2170 MHz
VSWR	2.5	2.1	2.1
Gain	3 dBi	4.5 dBi	5 dBi
Composite power max.	40 W	40 W	40 W
Port Isolation	3 dB	8 dB	15 dB
	Band 4	Band 5	Band 6
Frequency	2400 – 2690 MHz	3400 – 4200 MHz	4200 – 7125 MHz
VSWR	2.1	2.1	2.1
Gain	5 dBi	6 dBi	6.5 dBi
Composite power max.	40 W	30 W	25 W
Port Isolation	15 dB	20 dB	20 dB

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × diameter)	60 × 210 mm
Mounting breakthrough	Ø 30 mm
Weight	0.75 kg
Connector	2 × N (female)

Environmental data	
Environmental conditions	indoor/outdoor
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	PC (Polycarbonate)

Outdoor 690 – 4200 MHz

Omnidirectional antennas



Ordering information	SENCITY® Omni-S
	V-Pol Omni SISO
	Cellular/LTE 700 antenna
Type no.	1399.19.0225
Frequency range	698 – 2690 MHz
Gain	2 – 5 dBi
Version	SMA, plug (male)
Height	33.2 mm
Description	Single hole cabinet or wall/pole mounting
Item no.	85065467

Electrical data per band	Band 1	Band 2	Band 3
Frequency	698 – 862 MHz	1710 – 2170 MHz	2300 – 2690 MHz
Gain	2 dBi	5 dBi	3 dBi
Composite power max.	60 W	50 W	40 W

Electrical data	
VSWR	1.8
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × diameter)	33.2 × 145 mm
Weight	0.3 kg
Connector	1 × SMA, plug (male)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 to 85 °C
Flammability rating	UL 94-V0
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	PC (Polycarbonate)

Omnidirectional antennas



Ordering information	SENCITY® Omni-M
	V-Pol Omni LTE antenna
Type no.	1399.17.0231
Frequency range	790 – 960 MHz 1710 – 2690 MHz
Gain	2 – 3 dBi
Version	N (female)
Height	263 mm
Description	L-bracket for pole or wall mounting scenario included
Item no.	85027954

Electrical data per band	Band 1	Band 2
Frequency	790 – 960 MHz	1710 – 2690 MHz
Gain	2 dBi	3 dBi
VSWR	2	1.9

Electrical data	
Impedance	50 Ohm
Composite power max.	25 W
Ambient temperature	25 °C
IMD level	–143 dBc at 2 × 30 dBm

Mechanical data	
Dimensions (height × diameter)	263 × 32 mm
Weight	0.4 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–40 to 85 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Material data	
Radome colour	white
Radome material	Glass Reinforced Plastic (GRP)

Outdoor 690 – 4200 MHz

GNSS antenna L1+L2



Ordering information	GNSS ANT L1+L2 3.3V
Frequency range	1227.6 / 1588 MHz
Gain	32 dBi
Height	66.2 mm
Item no.	85160014

Description

- Excellent performance as part of a GPS-over-Fiber solution
- Dual Frequency – GPS L1 and L2 bands
- Weatherproof housing, proven extra rugged, reliable
- Extended temperature range (-40°C / +85°C)

Electrical data	3.3V 85160014
Centre frequency: L1	1588 MHz
Centre frequency: L2	1227.6 MHz
VSWR	maximum 2.0
Impedance	50 Ohm
Gain	32 dBi

Mechanical data	
Dimensions (height x diameter)	66.2 x 77.5 mm
Weight	0.2 kg
Connector	1 x TNC (female)

Environmental data	
Environmental conditions	outdoor
Operation temperature	-40 to 90 °C

Material data	
Enclosure	Off-white plastic

Direct GPS-over-Fiber



Description

- Direct GPSoF enables a fiber optic connection directly into an antenna – delivering the world's first “truly copperless” link.
- The use of Power-over-Fiber perfectly addresses power delivery constraints in Remote Antenna applications by eliminating the need for external power to the antenna (outdoor) unit. This is ideal for applications that have limited power resources such as rooftop installations. Using Power-over-Fiber also saves time and money in environments that may be hindered by the installation of conductive cable – which is typical when extending the supply of power to the installation areas.

Features

- Reduces the amount of hardware required in a link as core functionality is integrated into the antenna radome). Also significantly reduces the cable footprint of the link.
- Uses HUBER+SUHNER's Q-ODC fiber optic interface – which is perfect for outdoor/harsh environment use.
- Employs laser safety features that are compliant with all IEC standards.
- Is easy to install. Plug-and-Play.
- Supports link distances of up to 10 km.
- Unlimited flexibility in signal distribution.

Special purpose antennas



Ordering information	SENCITY® Road
	V-Pol 3-Port Omni vehicle antenna
Type no.	1399.99.0039
Frequency range	698 – 960 MHz 1710 – 2690 MHz 4900 – 5935 MHz
Gain	5 – 7 dBi
Version	SMA, TNC
Height	82 mm
Description	• Stick antenna option for TETRA • GPS/Glonass with integrated LNA • Offers a stick antenna socket and separate connectors • Single hole mounting, easy cabling • Works also on non-metallic surfaces
Item no.	84089087

Electrical data per band	Band 1	Band 2	Band 3	Band 4	Band 5
Frequency	698 – 790 MHz	790 – 960 MHz	1710 – 2690 MHz	1710 – 2690 MHz	4900 – 5935 MHz
VSWR	2.1	1.8	2	1.8	1.8
Gain	5 dBi	5 dBi	5 dBi	5 dBi	7 dBi
Composite power max.	80 W	40 W	40 W	40 W	30 W
Port Isolation			20 dB	20 dB	30 dB
	Band 6	Band 7			
Band name	GPS/Glonass	Socket			
Frequency	1574 – 1610 MHz				
VSWR	2				

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × width × depth)	82 × 83 × 208 mm
Weight	0.41 kg
Connector	SMA (male), SMA (female), TNC (male), TNC (female)

Environmental data	
Environmental conditions	indoor/outdoor
RoHS 2011/65/EU	compliant

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

Related Products		
FM radio stick antenna 88 – 108 MHz	84112255	9091.99.0246
Stick antenna 380 – 430 MHz	84112256	9091.99.0247
Stick antenna 450 – 470 MHz	84112257	9091.99.0248

Special purpose antennas



Ordering information	FM Radio Stick antenna
Type no.	9091.99.0246
Frequency range	88 – 108 MHz
Height	425 mm
Description	• Stick antenna for Sencity Road • Supports FM radio in the 88–108 MHz frequency range • Can be equipped on optional antenna socket
Item no.	84112255

Electrical data	
Frequency range	88 – 108 MHz
Impedance	50 Ohm
Mechanical data	
Dimensions (height × diameter)	425 × 16 mm
Weight	0.1 kg
Thread	M5
Environmental data	
Operation temperature	–40 to 85 °C
Flammability rating	UL 94-HB
RoHS 2011/65/EU	compliant
Material data	
Colour	black

Special purpose antennas



Ordering information	TETRA Stick antenna
Type no.	9091.99.0247
Frequency range	380 – 430 MHz
Height	145 mm
Description	• Stick antenna for Sen-city Road • Supports TETRA appli-cations in the 380 – 430 MHz frequen-cy range.
Item no.	84112256

Electrical data	
Frequency range	380 – 430 MHz
Impedance	50 Ohm
Mechanical data	
Dimensions (height × diameter)	145 × 15 mm
Weight	0.05 kg
Thread	M5
Environmental data	
Operation temperature	–40 to 85 °C
Flammability rating	UL 94-HB
RoHS 2011/65/EU	compliant
Material data	
Colour	black

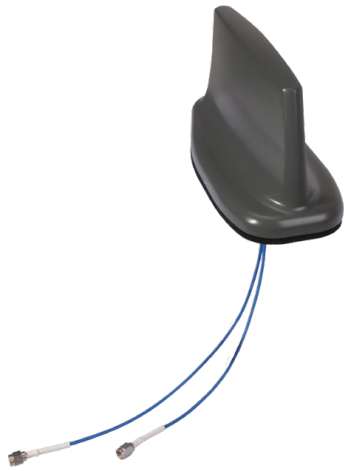
Special purpose antennas



Ordering information	TETRA Stick antenna
Type no.	9091.99.0248
Frequency range	450 – 470 MHz
Height	120 mm
Description	- Stick antenna for Sen-city Road - Supports TETRA applications in the 450 – 470 MHz frequency range.
Item no.	84112257

Electrical data	
Frequency range	450 – 470 MHz
Impedance	50 Ohm
VSWR	2
Gain	3 dBi (on metal ground plane)
Composite power max.	10 W
Mechanical data	
Dimensions (height × diameter)	120 × 15 mm
Weight	0.05 kg
Thread	M5
Environmental data	
Operation temperature	–40 to 85 °C
Flammability rating	UL 94-HB
RoHS 2011/65/EU	compliant
Material data	
Colour	black

Special purpose antennas



Ordering information	SENCITY® Road MIMO
	V-Pol 2-Port Omni vehicle antenna
Type no.	1399.99.0119
Frequency range	698 – 960 MHz 1710 – 2690 MHz
Gain	4 – 6 dBi
Version	SMA (male)
Height	88 mm
Description	
• Rugged vehicle rooftop multi-band antenna for heavy duty vehicles • Supports 2x2 MIMO configurations • Single hole mounting, easy cabling feed-through	
Item no.	85021510

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	698 – 790 MHz	790 – 960 MHz	1710 – 2170 MHz	2400 – 2690 MHz
VSWR	2.2	2	2	2
Gain	4 dBi	4 dBi	6 dBi	6 dBi
Composite power max.	80 W	50 W	40 W	40 W
Port Isolation	12 dB	12 dB	15 dB	15 dB

Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × width × depth)	88 × 83 × 208 mm
Weight	0.4 kg
Connector	2 × SMA (male)

Environmental data	
Environmental conditions	indoor / outdoor
IP rating	IP68, IP69
RoHS 2011/65/EU	compliant

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

Related Products	
Metal ground plane foil 0.6×0.6 m	9091.99.0250

Special purpose antennas



Ordering information	SENCITY® Road MIMO
	V-Pol 2-Port Omni vehicle antenna
Type no.	1399.99.0129
Frequency range	698 – 960 MHz 1710 – 2690 MHz
Gain	5 – 7 dBi
Version	SMA, TNC
Height	88 mm
Description	
• Rugged vehicle rooftop multi-band antenna for heavy duty vehicles • Supports 2x2 MIMO configurations • Single hole mounting, easy cabling feed-through • Works also on non-metallic surfaces	
Item no.	85004616

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	698 – 790 MHz	790 – 960 MHz	1710 – 2170 MHz	2400 – 2690 MHz
VSWR	2.2	2	2	2
Gain	4 dBi	4 dBi	6 dBi	6 dBi
Composite power max.	80 W	50 W	40 W	40 W
Port Isolation	12 dB	12 dB	15 dB	15 dB
	Band 5			
Band name	GPS/Glonass			
Frequency	1574 – 1610 MHz			
VSWR	2			

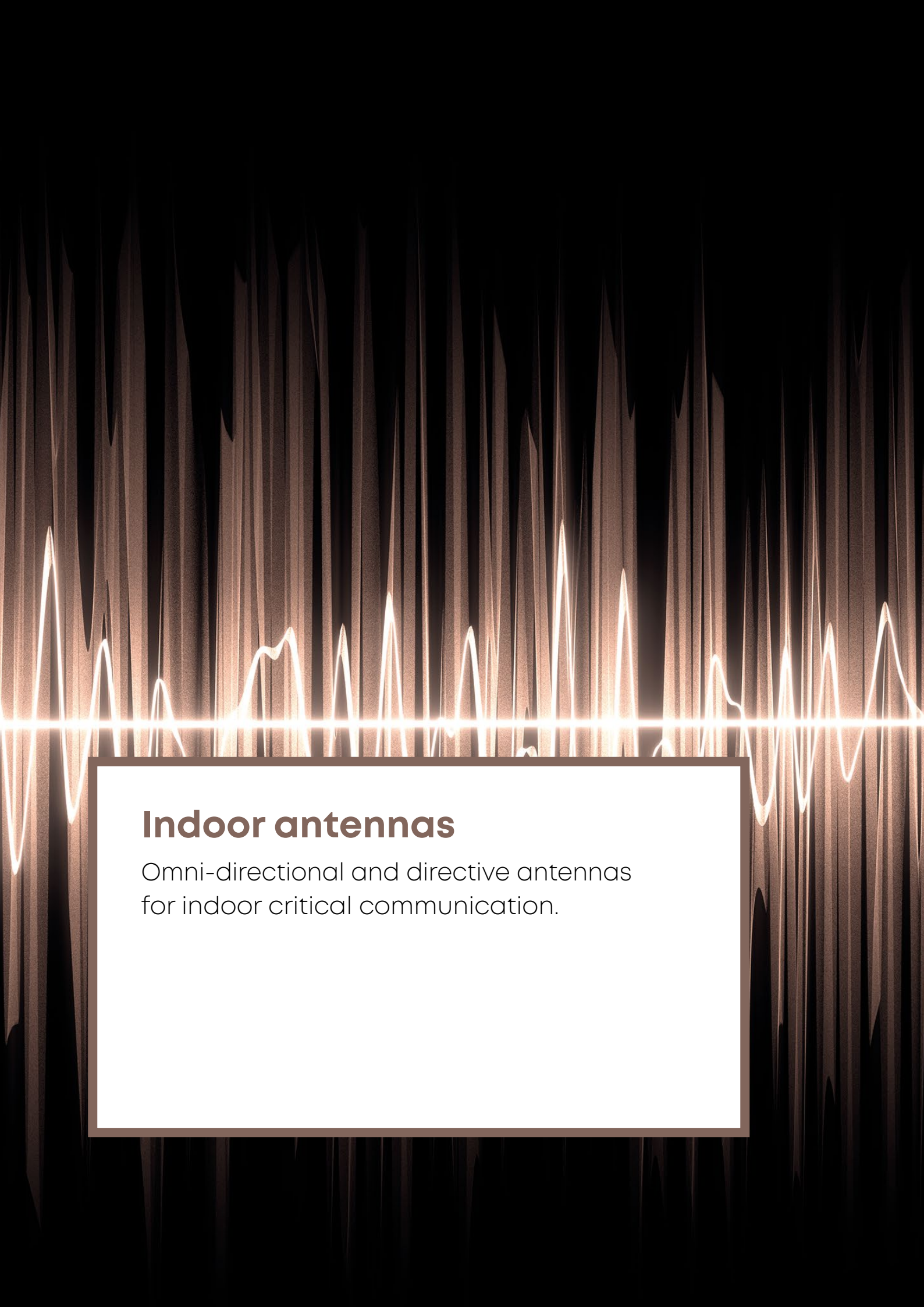
Electrical data	
Impedance	50 Ohm
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × width × depth)	88 × 83 × 208 mm
Weight	0.5 kg
Connector	SMA (male), SMA (female), TNC (male)

Environmental data	
Environmental conditions	indoor/outdoor
RoHS 2011/65/EU	compliant

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

Related Products	
Metal ground plane foil 0.6×0.6 m	9091.99.0250

The background is a dark, textured surface with numerous vertical, slightly wavy lines of varying heights and widths, creating a sense of depth and movement. A bright, glowing horizontal line runs across the middle of the image, with a jagged, signal-like waveform superimposed on it, resembling a radio frequency or data transmission signal. The overall color palette is dark, with warm, golden-brown highlights from the light streaks and the glowing line.

Indoor antennas

Omni-directional and directive antennas
for indoor critical communication.

Indoor antennas

Overview

Indoor omnidirectional antennas

Description				Type no.	Height	Input	Page
V-Pol Omni	380 – 405 MHz		2 dBi	91121388	77 mm	1 × N female	62
V-Pol Omni	405 – 430 MHz		2 dBi	91121440	77 mm	1 × N female	63
V-Pol Omni	450 – 470 MHz		2 dBi	91121743	77 mm	1 × N female	64
V-Pol Omni	380 – 6000 MHz		1 – 6 dBi	92210001	189.8 mm	1 × N female	65
V-Pol Omni	380 – 6000 MHz		1 – 6 dBi	92210002	189.8 mm	1 × 4.3-10 female	65
X-Pol Omni	617 – 4200 MHz		2.5 – 6.5 dBi	1399.31.0007	3 – 87mm	2 × 4.3-10 female	66
V-Pol Omni	617 – 4200 MHz		2.5 – 5.5 dBi	1399.31.0008	3 – 87mm	1 × 4.3-10 female	67
XX-Pol Omni	617 – 6000 MHz		6 dBi	1399.32.0020	40 mm	4 × NEX10 female	68

Indoor directional antennas

Description				Type no.	Height	Input	Page
V-Pol	380 – 470 MHz	90°	7 dBi	1399.17.0010	302 mm	1 × N female	69
V-Pol	380 – 470 MHz	90°	7 dBi	1399.31.0020	302 mm	1 × 4.3-10 female	70
X-Pol	698 – 960 MHz 1695 – 2700 MHz 3100 – 4200 MHz	85°/65°	6 – 7 dBi	1399.31.0022	200 mm	2 × 4.3-10 female	71

Indoor omnidirectional antennas



Ordering information	SENCITY® SC Indoor
	V-Pol Indoor Omni antenna
Type no.	91121388
Frequency range	380 – 405 MHz
Gain	2 dBi
Version	N (female)
Height	77 mm
Description	The antenna needs no additional groundplane
Item no.	84467216

Electrical data	
Frequency	380 – 405 MHz
VSWR	2
Gain	2 dBi
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C

Mechanical data	
Dimensions (height × diameter)	77 × 258 mm
Weight	0.429 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant

Material data	
Reflector	aluminium
Radome	high impact polystyrol
Colour	white

Indoor omnidirectional antennas



Ordering information	SENCITY® SC Indoor
	V-Pol Indoor Omni antenna
Type no.	91121440
Frequency range	405 – 430 MHz
Gain	2 dBi
Version	N (female)
Height	77 mm
Description	The antenna needs no additional groundplane
Item no.	84467225

Electrical data	
Frequency	405 – 430 MHz
VSWR	2
Gain	2 dBi
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C
Mechanical data	
Dimensions (height × diameter)	77 × 258 mm
Weight	0.429 kg
Connector	1 × N (female)
Environmental data	
Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant
Material data	
Reflector	aluminium
Radome	high impact polystyrol
Colour	white

Indoor omnidirectional antennas



Ordering information	SENCITY® SC Indoor
	V-Pol Indoor Omni antenna
Type no.	91121743
Frequency range	450 – 470 MHz
Gain	2 dBi
Version	N (female)
Height	77 mm
Description	The antenna needs no additional groundplane
Item no.	84467231

Electrical data	
Frequency	450 – 470 MHz
VSWR	2
Gain	2 dBi
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C
Mechanical data	
Dimensions (height × diameter)	77 × 258 mm
Weight	0.429 kg
Connector	1 × N (female)
Environmental data	
Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant
Material data	
Reflector	aluminium
Radome	high impact polystyrol
Colour	white

Indoor omnidirectional antennas



Ordering information	SENCITY® SC Indoor
	V-Pol Indoor Omni antenna
Type no.: Version	92210001: N (female)
Item no.	84467570
	92210002: 4.3-10 (female)
Item no.	84467568
Frequency range	380 – 6000 MHz multi-band
Gain	1 – 6 dBi
Height	189.8 mm

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	380 – 806 MHz	806 – 960 MHz	1395 – 1432 MHz	1710 – 2170 MHz
VSWR	2.5	2	2	2
Gain	2 dBi	4 dBi	5 dBi	5 dBi
	Band 5	Band 6	Band 7	
Frequency	2300 – 2500 MHz	3300 – 3700 MHz	4900 – 6000 MHz	
VSWR	2	1.9	1.9	
Gain	5 dBi	5 dBi	6 dBi	

Electrical data	
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	50 °C
IMD level	–155 dBc at 2 × 20 dBm

Mechanical data	
Dimensions (height × diameter)	189.8 × 274.1 mm
Weight	0.55 kg
Connector	92210001: 1 × N (female) 92210002: 1 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor
RoHS 2011/65/EU	compliant
Flammability	UL94
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant

Material data	
Radome material	UV protected polycarbonate
Colour	white
Back plane	aluminum protected through chemical passivation

Indoor omnidirectional antennas



Ordering information	SENCITY® Rondo MIMO
	X-Pol Indoor Omni antenna
Type no.	1399.31.0007
Frequency range	617 – 4200 MHz
Gain	2.5 – 6.5 dBi
Version	4.3–10 (female)
Height	87 mm
Description	• Antenna ETL listed for Plenum space (UL 2043) • Design patent DM/088510
Item no.	85086028

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	617 – 698 MHz	698 – 790 MHz	790 – 960 MHz	1695 – 2180 MHz
VSWR	1.8	1.9	2	1.6
Gain	2.5 dBi	3.5 dBi	4.5 dBi	5 dBi
Composite power max.	300 W	180 W	180 W	130 W
	Band 5	Band 6	Band 7	Band 8
Frequency	2180 – 2400 MHz	2400 – 2500 MHz	2500 – 2690 MHz	3300 – 4200 MHz
VSWR	1.6	1.5	1.5	2
Gain	6 dBi	6.5 dBi	6.5 dBi	5.5 dBi
Composite power max.	90 W	50 W	50 W	50 W

Electrical data	
Impedance	50 Ohm
Ambient temperature	55 °C
IMD level	–155 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	87 × 238 mm
Weight	0.82 kg
Connector	2 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor
Flammability	UL94-V0

Material data	
Radome colour	white
Back plate / base plate material	PCB_1

Antenna accessories		
Item description	Item number	Product name
9091.99.0258	85067690	Multi function bracket for SENCITY® Rondo

Antenna accessories remarks
Thickness of false ceiling to be < 30 mm.

Installation example



Indoor omnidirectional antennas



Ordering information	SENCITY® Rondo SISO
	V-Pol Indoor Omni antenna
Type no.	1399.31.0008
Frequency range	617 – 4200 MHz
Gain	2.5 – 5.5 dBi
Version	4.3–10 (female)
Height	87 mm
Description	- Antenna ETL listed for Plenum space (UL 2043) - Design patent DM/088510
Item no.	85086041

Electrical data per band	Band 1	Band 2	Band 3
Frequency	617 – 698 MHz	698 – 790 MHz	790 – 960 MHz
VSWR	1.8	2	2
Gain	2.5 dBi	2.5 dBi	4.5 dBi
	Band 4	Band 5	Band 6
Frequency	1695 – 2400 MHz	2400 – 2690 MHz	3300 – 4200 MHz
VSWR	1.7	1.5	2
Gain	5 dBi	5.5 dBi	5 dBi

Electrical data	
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	25 °C
IMD level	–155 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	87 × 238 mm
Weight	0.512 kg
Connector	4.3 – 10, 4.3 – 10, jack (female)

Environmental data	
Environmental conditions	indoor
Flammability	UL94-V0

Material data	
Radome colour	white
Back plate / base plate material	PCB_1

Antenna accessories		
Item description	Item number	Product name
9091.99.0258	85067690	Multi function bracket for SENCITY® Rondo

Antenna accessories remarks
Thickness of false ceiling to be < 30 mm.

Installation example



Indoor omnidirectional antennas



Ordering information	SENCITY® OCCHIO 4x4 MIMO Antenna
	XX-Pol Indoor Omni antenna
Type no.	1399.32.0020
Frequency range	617 – 6000 MHz
Gain	6 dBi
Version	NEX10 (female)
Height	40 mm
Description SENCITY Occhio MIMO 4x4 offers 5G coverage, a simple, time-saving installation process and an attractive industry preferred design with a small form factor. Thanks to its multiband capability between 617 MHz till 6 GHz it supports today's and future wireless applications.	
Item no.	85189602

Electrical data per band	Band 1	Band 2	Band 3
Frequency	617 – 960 MHz	1427 – 1660 MHz	1695 – 2690 MHz
Gain	3 dBi	4.5 dBi	4.5 dBi
Port Isolation	15 dB	15 dB	20 dB
	Band 4	Band 5	
Frequency	3300 – 4200 MHz	4500 – 6000 MHz	
Gain	5 dBi	6 dBi	
Port Isolation	30 dB	30 dB	

Electrical data	
VSWR	2
Impedance	50 Ohm
Ambient temperature	55 °C
IMD level	–153 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × diameter)	40 × 275 mm
Weight	0.93 kg
Connector	4 × NEX10 (female)

Environmental data	
Environmental conditions	indoor
Operation temperature	0 – 55 °C
RoHS 2011/65/EU	compliant
Flammability	UL94-V0
REACH 2006/1907/EC	compliant

Material data	
Radome colour	white
Back plate / base plate colour	black

Indoor directional antennas



Ordering information	SENCITY® SC Indoor
	V-Pol Indoor directional antenna
Type no.	1399.17.0010
Frequency range	380-470 MHz
Half-power beam width	90°
Gain	7 dBi
Version	N (female)
Height	302 mm
Item no.	85194601

Electrical data	
Frequency	380 – 470 MHz
VSWR	2
Gain	7 dBi
3dB beamwidth (v)	90°
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	25 °C
Mechanical data	
Dimensions	302 × 243 × 50 mm
Weight	1.39 kg
Connector	1 × N (female)
Environmental data	
Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant
Material data	
Reflector	copper
Radome	high impact polystyrol
Colour	white
Mounting plates	stainless steel

Indoor directional antennas



Ordering information	SENCITY® SC Indoor V-Pol Indoor directional antenna
Type no.	1399.31.0020
Frequency range	380 – 470 MHz
Half-power beam width	90°
Gain	7 dBi
Version	4.3-10 (female)
Height	302 mm
Item no.	85201925

Electrical data	
Frequency	380 – 470 MHz
VSWR	2
Gain	7 dBi
3dB beamwidth (v)	90°
Impedance	50 Ohm
Composite power max.	50 W
Ambient temperature	25 °C

Mechanical data	
Dimensions	302 × 243 × 50 mm
Weight	1.39 kg
Connector	1 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor
IP rating	IP30
RoHS 2011/65/EU	compliant
WEEE 2012/19/EU	no special marking needed
REACH 2006/1907/EC	compliant

Material data	
Reflector	copper
Radome	high impact polystyrol
Colour	white
Mounting plates	stainless steel

Indoor directional antennas



Ordering information	SENCITY® Urban 300
	X-Pol Indoor directional antenna
Type no.	1399.31.0022
Frequency range	698 – 960 MHz 1695 – 2700 MHz 3100 – 4200 MHz
Gain	6 – 7 dBi
Version	4.3-10 (female)
Height	200 mm
Description	Supports MIMO 2x2
Item no.	85198125

Electrical data per band	Band 1	Band 2	Band 3
Frequency	698 – 960 MHz	1695 – 2700 MHz	3100 – 4200 MHz
Gain	6.5 dBi	7 dBi	6 dBi
3dB beamwidth (h)	85°	65°	65°
3dB beamwidth (v)	80°	65°	65°

Electrical data	
VSWR	2
Impedance	50 Ohm
Max. effective comb. power per port	50 W
Ambient temperature	25 °C

Mechanical data	
Dimensions (height × width × depth)	200 × 260 × 90 mm
Weight	1.1 kg
Connector	2 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor/outdoor
IP rating	IP67
Flammability Rating	UL 94-V0
RoHS 2011/65/EU	compliant
REACH 2006/1907/EC	compliant

Material data	
Radome	PC (Polycarbonate)
Colour	white



Splitter, tapper, combiner

RF components for indoor and
outdoor critical communication.

Splitter, tapper, combiner

Overview

Splitter

Description			Type no.	Length	Output	Page
2-way splitter	380 – 4000 MHz		5501.31.0102	318 mm	2 × 4.3-10 fem.	74
3-way splitter	380 – 4000 MHz		5501.31.0103	365 mm	3 × 4.3-10 fem.	75
4-way splitter	380 – 4000 MHz		5501.31.0104	399 mm	4 × 4.3-10 fem.	76
2-way splitter	380 – 2700 MHz		5501.17.0030	267 mm	2 × N female	77
3-way splitter	380 – 2700 MHz		5501.17.0031	262 mm	3 × N female	78
2-way splitter	340 – 3800 MHz		5501.41.0102	318 mm	2 × 7/16 female	79
3-way splitter	340 – 3800 MHz		5501.41.0103	365 mm	3 × 7/16 female	80
4-way splitter	340 – 3800 MHz		5501.41.0104	399 mm	4 × 7/16 female	81
2-way splitter	694 – 6000 MHz		5504.17.0011	239 mm	2 × N female	82

Tapper

Description			Type no.	Power	Ports	Page
2-way tapper 3 dB	350 – 2700 MHz	2:1 unequal power divider	5501.31.0002	300 W	3 × 4.3-10 fem.	83
2-way tapper 4.8 dB	350 – 2700 MHz	3:1 unequal power divider	5501.31.0003	300 W	3 × 4.3-10 fem.	83
2-way tapper 6 dB	350 – 2700 MHz	4:1 unequal power divider	5501.31.0004	300 W	3 × 4.3-10 fem.	83
2-way tapper 10 dB	350 – 2700 MHz	10:1 unequal power divider	5501.31.0010	300 W	3 × 4.3-10 fem.	83
2-way tapper 15 dB	350 – 2700 MHz	30:1 unequal power divider	5501.31.0015	300 W	3 × 4.3-10 fem.	83
2-way tapper 20 dB	350 – 2700 MHz	100:1 unequal power divider	5501.31.0100	300 W	3 × 4.3-10 fem.	83

Diplexer

Description			Type no.	Power	Ports	Page
TETRA + cellular + Wi-Fi diplexer	80 – 520 MHz 694 – 2700 MHz	Return Loss 16 dB	2501.17.0091	120 W	N female	84
450MHz + GSM-R diplexer	440 – 470 MHz 870 – 960 MHz	Return Loss ≤ 20 dB	2501.17.0100	50 W	N female	85

Quadruplexer

Description			Type no.	Power	Ports	Page
4-port quadruplexer	380 – 960 MHz 1710 – 1880 MHz 1920 – 2170 MHz 2500 – 2690 MHz	Return Loss 18 dB	2501.41.0100	700 W 300 W 200 W 200 W	7/16 female	86

Filter

Description	Pass Band	Rejection Band	Type no.	Rejection	Ports	Page
Double GSM-R Rejection Filter	703... 3800 MHz	873 – 880 MHz 918 – 925 MHz	2601.17.0001	Min. 50 dB	N female	87

Reactive Power Splitter



Ordering information	2-Way Reactive Power Splitter
Type no.	5501.31.0102
Frequency range	380 – 4000 MHz
Version	4.3-10
Length	318 mm
Description	• Installation equipment for critical communication antennas • 2-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	85195613

Electrical data	Band 1
Frequency	380 – 4000 MHz
Split Loss	3.5 dB
Impedance	50 Ohm
Composite power max.	500 W
Peak envelope power	1500 W
Ambient temperature	25 °C
PIM3	–160 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (length × height × width)	318 × 25 × 25 mm (without connector dimension)
Weight	0.5 kg
Connector	Input 1 × 4.3-10 (female), Output 2 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 to 60 °C
IP rating	IP65
RoHS 2011/65/EU	compliant

Reactive Power Splitter



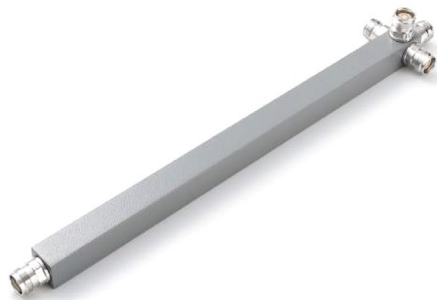
Ordering information	3-Way Reactive Power Splitter
Type no.	5501.31.0103
Frequency range	380 – 4000 MHz
Version	4.3-10
Length	365 mm
Description	• Installation equipment for critical communication antennas • 3-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	85195614

Electrical data	Band 1
Frequency	380 – 4000 MHz
Split Loss	5.6 dB
Impedance	50 Ohm
Composite power max.	500 W
Peak envelope power	1500 W
Ambient temperature	25 °C
PIM3	–160 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (length × height × width)	365 × 25 × 25 mm (without connector dimension)
Weight	0.64 kg
Connector	Input 1 × 4.3-10 (female), Output 3 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 to 60 °C
IP rating	IP65
RoHS 2011/65/EU	compliant

Reactive Power Splitter



Ordering information	4-Way Reactive Power Splitter
Type no.	5501.31.0104
Frequency range	380 – 4000 MHz
Version	4.3-10
Length	399 mm
Description	• Installation equipment for critical communication antennas • 4-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	85195615

Electrical data	Band 1
Frequency	380 – 4000 MHz
Split Loss	6.8 dB
Impedance	50 Ohm
Composite power max.	500 W
Peak envelope power	1500 W
Ambient temperature	25 °C
PIM3	–160 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (length × height × width)	399 × 25 × 25 mm (without connector dimension)
Weight	0.75 kg
Connector	Input 1 × 4.3-10 (female), Output 4 × 4.3-10 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 to 60 °C
IP rating	IP65
RoHS 2011/65/EU	compliant

Reactive Power Splitter



Ordering information	2-Way Reactive Power Splitter
Type no.	5501.17.0030
Frequency range	380 – 2700 MHz
Version	N (female)
Length	267 mm
Description	• Evenly split high power signals with minimal reflections or loss • Wide frequency range allows use with multi-band antennas and leaky cable systems
Item no.	85029258

Electrical data	Band 1
Frequency	380 – 2700 MHz
Split Loss	3 dB
Insertion Loss	0.1 dB
Char. Impedance	50 Ohm
Composite power max.	300 W
Intermodulation distortion	–155 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × length)	28.5 × 28.5 × 267 mm
Weight	0.33 kg
Connector	Input 1 × N jack (female), Output 2 × N jack (female)

Environmental data	
Environmental conditions	indoor / outdoor
Operation temperature	–35 to 85 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Reactive Power Splitter



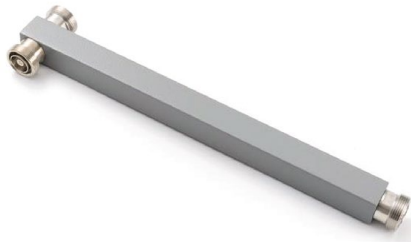
Ordering information	3-Way Reactive Power Splitter
Type no.	5501.17.0031
Frequency range	380 – 2700 MHz
Version	N (female)
Length	262 mm
Description	• Evenly split high power signals with minimal reflections or loss • Wide frequency range allows use with multi-band antennas and leaky cable systems
Item no.	85029259

Electrical data	Band 1
Frequency	380 – 2700 MHz
Split Loss	4.8 dB
Insertion Loss	0.1 dB
Char. Impedance	50 Ohm
Composite power max.	300 W
Intermodulation distortion	–155 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × length)	28.5 × 28.5 × 262 mm
Weight	0.37 kg
Connector	Input 1 × N jack (female), Output 3 × N jack (female)

Environmental data	
Environmental conditions	indoor / outdoor
Operation temperature	–35 to 85 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Reactive Power Splitter



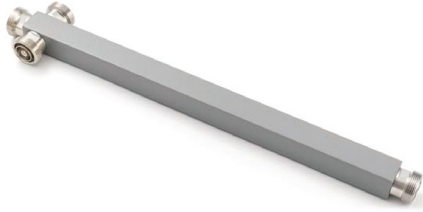
Ordering information	2-Way Reactive Power Splitter
Type no.	5501.41.0102
Frequency range	340 – 3800 MHz
Version	7/16 (female)
Length	318 mm
Description	• Installation equipment for critical communication antennas • 2-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	85195616

Electrical data	Band 1
Frequency	340 – 3800 MHz
Split Loss	3.0 dB
Impedance	50 Ohm
Composite power max.	500 W
Peak envelope power	1500 W
Ambient temperature	25 °C
PIM3	–160 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (length × height × width)	318 × 25 × 25 mm (without connector dimension)
Weight	0.6 kg
Connector	Input 1 × 7/16 (female), Output 2 × 7/16 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 to 60 °C
IP rating	IP65
RoHS 2011/65/EU	compliant

Reactive Power Splitter



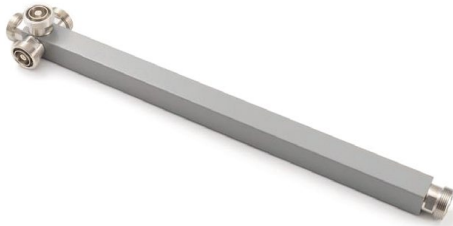
Ordering information	3-Way Reactive Power Splitter
Type no.	5501.41.0103
Frequency range	340 – 3800 MHz
Version	7/16 (female)
Length	365 mm
Description	• Installation equipment for critical communication antennas • 3-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	85195617

Electrical data	Band 1
Frequency	340 – 3800 MHz
Split Loss	4.8 dB
Impedance	50 Ohm
Composite power max.	500 W
Peak envelope power	1500 W
Ambient temperature	25 °C
PIM3	–160 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (length × height × width)	365 × 25 × 25 mm (without connector dimension)
Weight	0.7 kg
Connector	Input 1 × 7/16 (female), Output 3 × 7/16 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 to 60 °C
IP rating	IP65
RoHS 2011/65/EU	compliant

Reactive Power Splitter



Ordering information	4-Way Reactive Power Splitter
Type no.	5501.41.0104
Frequency range	340 – 3800 MHz
Version	7/16 (female)
Length	399 mm
Description	• Installation equipment for critical communication antennas • 2-Way Low-loss Power Splitter • Multi-band • Low PIM –160 dBc
Item no.	85195618

Electrical data	Band 1
Frequency	340 – 3800 MHz
Split Loss	6.0 dB
Impedance	50 Ohm
Composite power max.	500 W
Peak envelope power	1500 W
Ambient temperature	25 °C
PIM3	–160 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (length × height × width)	399 × 25 × 25 mm (without connector dimension)
Weight	0.8 kg
Connector	Input 1 × 7/16 (female), Output 4 × 7/16 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–55 to 60 °C
IP rating	IP65
RoHS 2011/65/EU	compliant

Reactive Power Splitter



Ordering information	2-Way Reactive Power Splitter
Type no.	5504.17.0011
Frequency range	694 – 6000 MHz
Version	N (female)
Length	239 mm
Description	• 2-way broadband reactive power splitter • It covers 5G and Wi-Fi 6 Band • Waterproof (IP67) in un-mated condition as well • Tested according to EN 50155 • Conformity to EN 45545
Item no.	85191624

Electrical data	Band 1
Frequency	694 – 6000 MHz
Return loss input port	> 20 dB
Insertion Loss	< 3.2 dB
Char. Impedance	50 Ohm
Composite power max.	300 W

Mechanical data	
Dimensions (height × width × length)	20 × 67 × 239 mm
Weight	0.345 kg
Connector	Input 1 × N jack (female), Output 2 × N jack (female)

Environmental data	
Environmental conditions	Outdoor
Operation temperature	–40 to 85 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Unequal Power Divider



Ordering information

2:1 unequal power divider Type no. 5501.31.0002 , Item no. 85075310			
	MHz Band 1 350 – 960	MHz Band 2 1710 – 2700	
Return Loss	15 dB	17 dB	
Tapp Loss	3 dB	3 dB	
Insertion Loss	1.8 dB	1.8 dB	

3:1 unequal power divider Type no. 5501.31.0003 , Item no. 85075311			
	MHz Band 1 350 – 960	MHz Band 2 1710 – 2700	
Return Loss	17.6 dB	17.6 dB	
Tapp Loss	4.8 dB	4.8 dB	
Insertion Loss	1.3 dB	1.3 dB	

4:1 unequal power divider Type no. 5501.31.0004 , Item no. 85075312			
	MHz Band 1 350 – 960	MHz Band 2 1710 – 1800	MHz Band 3 1800 – 2700
Return Loss	20.8 dB	17.6 dB	20.8 dB
Tapp Loss	6 dB	6 dB	6 dB
Insertion Loss	1 dB	1 dB	1 dB

Frequency range	350 – 2700 MHz
Version	4.3-10 (female)
Width	89 mm

Description

These tappers unevenly split high power cellular signals with minimal reflections or loss over the wireless bands in the range 350-2700 MHz (no coupling from 960 to 1710 MHz). The innovative asymmetric design ensures an excellent input VSWR and coupling flatness across the band. The lightweight design allows easy attachment to a wall using the supplied bracket. Designed with only a few solder joints and an air dielectric, loss is minimized and reliability enhanced. It supports public safety and cellular bands, as well as Wi-Fi 2.4 GHz.

10:1 unequal power divider Type no. 5501.31.0010 , Item no. 85075315			
	MHz Band 1 350 – 960	MHz Band 2 1710 – 1800	MHz Band 3 1800 – 2700
Return Loss	20.8 dB	17.6 dB	20.8 dB
Tapp Loss	10 dB	10 dB	10 dB
Insertion Loss	0.4 dB	0.4 dB	0.4 dB

30:1 unequal power divider Type no. 5501.31.0015 , Item no. 85075316			
	MHz Band 1 350 – 960	MHz Band 2 1710 – 2700	
Return Loss	20.8 dB	20.8 dB	
Tapp Loss	15 dB	15 dB	
Insertion Loss	0.1 dB	0.1 dB	

100:1 unequal power divider Type no. 5501.31.0100 , Item no. 85075317			
	MHz Band 1 350 – 960	MHz Band 2 1710 – 2700	
Return Loss	20.8 dB	20.8 dB	
Tapp Loss	20 dB	20 dB	
Insertion Loss	0.1 dB	0.1 dB	

Specifications

Electrical data	
Char. Impedance	50 Ohm
Composite power max.	300 W
Peak envelope power	2000 W
Intermodulation distortion	–161 dBc at 2 × 43 dBm

Mechanical data			
Dimensions (height × width × length)	32 × 89 × 32 mm		
Weight	0.42 kg		
Connector	Main Line In	Main Line Out	Tap Port
	4.3-10 jack (female)	4.3-10 jack (female)	4.3-10 jack (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–40 to 75 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Diplexer



Ordering information	TETRA + cellular + Wi-Fi diplexer
Type no.	2501.17.0091
Frequency range	80 – 520 MHz 694 – 2700 MHz
Version	N (female)
Height	30.99 mm
Description Diplexer for combination and separation of the signals in 80 – 520 MHz and the 694 – 2700 MHz wireless bands. To minimize band inter-reaction, the inputs are well isolated and have minimal insertion loss over their respective frequency bands. The diplexer is designed using passive, proprietary techniques for low loss, low PIM and high reliability. Meets EN 50155 (Class T1).	
Item no.	84103625

Electrical data per band	Band 1	Band 2
Frequency	80 – 520 MHz	694 – 2700 MHz
Insertion Loss	0.3 dB	0.5 dB
Composite power max.	50 W	120 W

Electrical data	
Return Loss	16 dB
Peak envelope power	3000 W
Intermodulation distortion	–161 dBc at 2 × 43 dBm
Remarks	Return loss band 2, sub-band 960 – 1500 MHz: 12 dB Isolation between port J1 (80 – 520 MHz) and port J2 (694 – 2700 MHz): 80 – 520 MHz: 50 dB 694 – 800 MHz: 40 dB 800 – 2500 MHz: 50 dB 2500 – 2700 MHz: 30 dB

Mechanical data	
Dimensions (height × width × depth)	30.99 × 130.36 × 177.02 mm
Weight	0.8 kg
Connector	N (female)

Environmental data	
Environmental conditions	indoor
Operation temperature	–35 to 65 °C
IP rating	IP64
RoHS 2011/65/EU	compliant

Material data	
Housing material	aluminium
Surface treatment	passivated

Diplexer



Ordering information	450MHz + GSM-R diplexer
Type no.	2501.17.0100
Frequency range	440 – 470 MHz 870 – 960 MHz
Version	N (female)
Height	247 mm
Description	- Diplexer combines and separate signals in frequency 440 – 475 MHz and the 870 – 960 MHz wireless bands - Fire retardant acc. to EN 45545-2
Item no.	85193147

Electrical data per band	Band 1	Band 2
Frequency	440 – 470 MHz	870 – 960 MHz
Insertion Loss	0.3 dB	0.3 dB
Composite power max.	50 W	120 W

Electrical data	
Return Loss	16 dB
Peak envelope power	3000 W
Intermodulation distortion	–150 dBc at 2 × 43 dBm
Remarks	VSWR < 1.22

Mechanical data	
Dimensions (height × width × depth)	247 × 123 × 49 mm
Weight	2.1 kg
Connector	N (female)

Environmental data	
Environmental conditions	indoor / Outdoor
Operation temperature	–40 to 70 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Material data	
Housing material	aluminium
Surface treatment	passivated

Quadruplexer



Ordering information	4-port quadruplexer
Type no.	2501.41.0100
Frequency range	380 – 2690 MHz
Version	7/16 (female)
Height	232 mm
Description A 4-port quadruplexer which allows combination and separation of the signals in 380 – 960/1710 – 1880/1920 – 2170/2500 – 2690 MHz wireless bands. To minimize band inter-reaction, the inputs have an isolation >50 dB and have minimal insertion loss <0.3 dB over their respective frequency bands.	
Item no.	85070953

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	380 – 960 MHz	1710 – 1880 MHz	1920 – 2170 MHz	2500 – 2690 MHz
Composite power max.	700 W	300 W	200 W	200 W

Electrical data	
Insertion Loss	0.3 dB
Return Loss	18 dB
Peak envelope power	1500 W
Impedance	50 Ohm
Intermodulation distortion	–155 dBc at 2 × 43 dBm

Mechanical data	
Dimensions (height × width × depth)	232 × 223 × 50 mm
Weight	4.6 kg
Connector	7/16 (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–40 to 65 °C
IP rating	IP67
RoHS 2011/65/EU	compliant

Material data	
Housing material	aluminium
Surface treatment	black paint

Filter



Ordering information	Double GSM-R Rejecting Filter
Type no.	2601.17.0001
Frequency range	703 – 3800 MHz
Version	N (female)
Height	72 mm
Description	
- The Double GSM-R Band Rejecting filter is designed to achieve low insertion loss and high rejection level close to the pass band. - It prevents the interference between the public mobile network (LTE700 / LTE800 / GSM900 / LTE1800 / UMTS / LTE 2600 / 5G) and GSM-R signal. - Rugged design, meets EN 50155 Railway Standard - Fire retardant acc. to EN 45545-2 - IP54 Rated	
Item no.	85172747

Electrical bands	Pass Band	Pass Band	Pass Band	Pass Band
Frequency	703 MHz – 803 MHz	790 MHz – 862 MHz	890 MHz – 910 MHz	935 MHz – 960 MHz
Insertion loss	≤ 0.3 dB	≤ 0.7 dB	≤ 0.9 dB	≤ 1 dB
Return loss	≥ 16 dB	≥ 12 dB	≥ 12 dB	≥ 16 dB
Electrical bands	Pass Band	Pass Band	Pass Band	Pass Band
Frequency	1710 MHz – 1880 MHz	1900 MHz – 2200 MHz	2500 MHz – 2690 MHz	3400 MHz – 3800 MHz
Insertion loss	≤ 0.5 dB	≤ 0.5 dB	≤ 0.55 dB	≤ 0.8 dB
Return loss	≥ 16 dB	≥ 16 dB	≥ 14 dB	≥ 12 dB

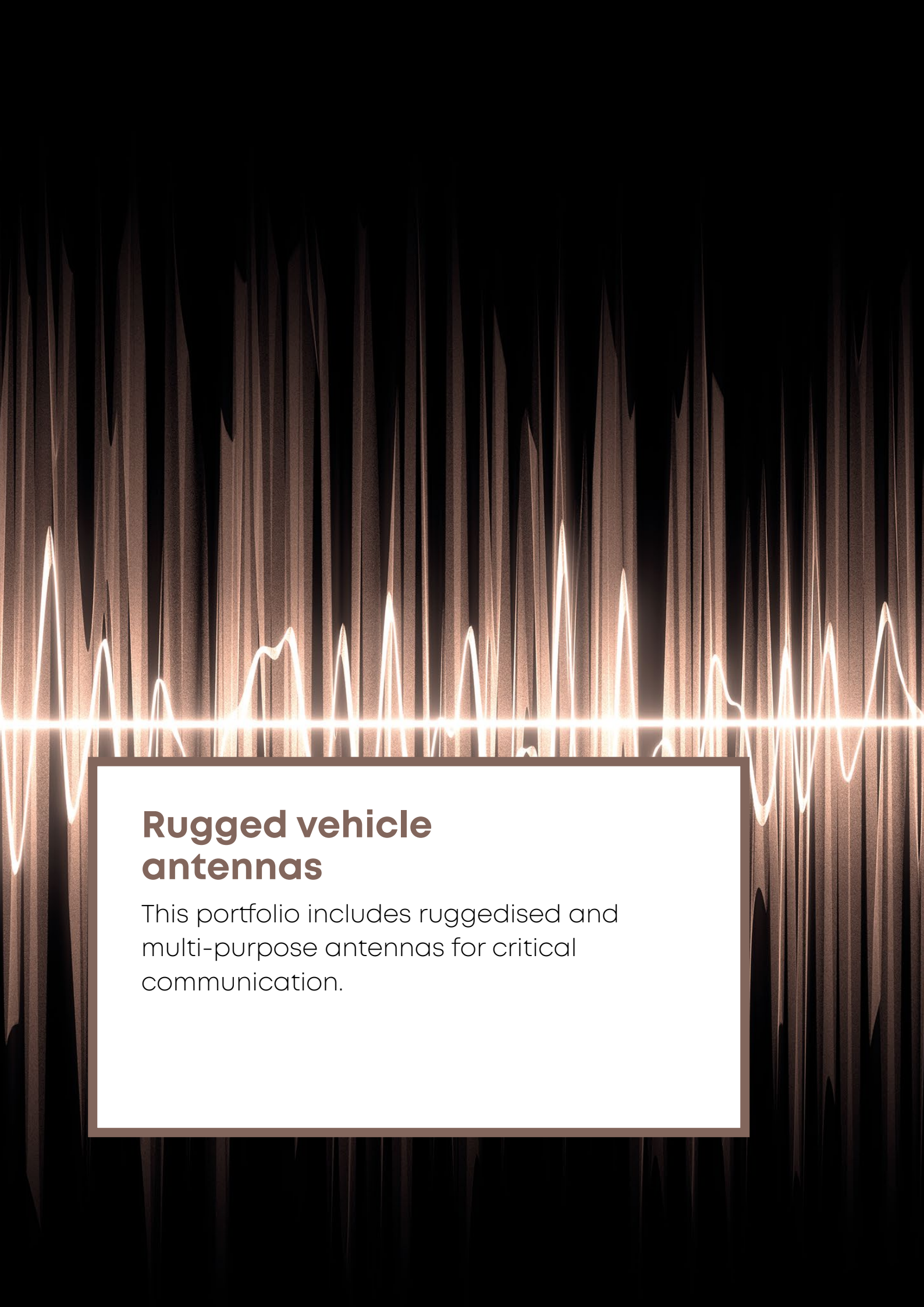
Electrical bands	
Composit power max	50 W

Electrical data (rejection)	
Band	Rejection
Stop Band	Min. 50 dB @ 873 MHz ... 880 MHz
Stop Band	Min. 50 dB @ 918 MHz ... 925 MHz

Mechanical data	
Dimensions (height × width × depth)	72 × 251 × 96 mm
Weight	4 kg
Connector	N (female)

Environmental data	
Environmental conditions	indoor/outdoor
Operation temperature	–25 to 70 °C
IP rating	IP54
RoHS 2011/65/EU	compliant

Material data	
Housing material	aluminium
Surface treatment	black paint



Rugged vehicle antennas

This portfolio includes ruggedised and multi-purpose antennas for critical communication.

Rugged vehicle antennas

Overview

Omnidirectional antennas

Description				Type no.	Height	Input	Page
V-Pol Omni	410 – 470 MHz			K813132	142 mm	1 × N female	90
V-Pol Omni	380 – 430 MHz			98121119	150 mm	1 × N female	91

Communication incl. GPS

Description				Type no.	Height	Input	Page
NEW SENCITY® Shield Low Profile	790 – 6425 MHz	5 dBi	· «Normal» Omni patterns · Low Power (80W) · Broad bandwidth · GPS L1+L2 · One type inkl. MIMO · One type inkl. Mag. Mount	1399.99.0284	40 mm	1 × N female	92
NEW SENCITY® Shield MIMO	617 – 7125 MHz	5 – 7.5 dBi		1399.99.0286	81.6 mm	2 × N female	93
NEW SENCITY® Shield	694 – 6425 MHz	5 – 8.5 dBi		1399.99.0287	90 mm	1 × N female	94
NEW SENCITY® Shield Ultra	380 – 6425 MHz	3 – 8 dBi		1399.99.0288	154 mm	1 × N female	95
SENCITY® special communication antenna	380 – 7125 MHz	4 – 6 dBi		1399.19.0060	130 mm	6 × SMA fem.	96

Other vehicle antennas

Description				Type no.	Height	Input	Page
SENCITY® Tram MULTI	380 – 7125 MHz	2 – 6 dB		1399.99.0253	60 mm	SMA, TNC	98
SENCITY® Tram MULTI portfolio							100

GPS amplifier

Description				Type no.	Height	Input	Page
External GPS & Galileo amplifier	1559 – 1609 MHz	25 dB		86010142	70 mm	N female	101

Omnidirectional antennas



Ordering information	SENCITY® SC antenna
	V-Pol vehicle Antenna
Type no.	K813132
Frequency range	410 – 470 MHz
Gain	dB 0
Version	N (female)
Height	142 mm
Description	Low profile antenna in GRP radome
Item no.	84468534

Electrical data	Band 1
Band name	Tetra
Frequency	410 – 470 MHz
VSWR	1.5
Gain	Gain dB 0 (ref. to the quarter-wave antenna)
Impedance	50 Ohm
Composite power max.	170 W
Ambient temperature	50 °C

Mechanical data	
Dimensions (height × width × depth)	142 × 145 × 80 mm
Weight	0.5 kg
Connector	1 × N, jack (female)

Environmental data	
Environmental conditions	outdoor
Operation temperature	–40 to 85 °C
IP rating	IP66
Flammability rating	UL 94-HB
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Radome material	Glass Reinforced Plastic (GRP)
Radiator and flange	aluminium

Omnidirectional antennas



Ordering information	SENCITY® SC Special Purpose
	V-Pol Omni-directional vehicle antenna
Type no.	98121119
Frequency range	380 – 430 MHz
Version	N (female)
Height	150 mm
Description	• Meets EN 50155 • Fire retardant acc. EN 45545-2
Item no.	84468948

Electrical data	Band 1
Frequency	380 – 430 MHz
VSWR	1.7
Gain	0 dB (ref. to the quarter-wave antenna)
Composite power max.	100 W
Impedance	50 Ohm
Ambient temperature	50 °C

Mechanical data	
Dimensions (height × width × depth)	150 × 145 × 85 mm
Weight	0.5 kg
Connector	1 × N (female)

Environmental data	
Environmental conditions	outdoor
IP rating	IP66
Flammability rating	DIN 5510-2, UL94 HB, EN 45545-2
RoHS 2011/65/EU	compliant

Material data	
Radome colour	grey
Back plate / base plate colour	black
Back plate / base plate material	aluminium

Communication incl. GPS



Ordering information	SENCITY® Shield
	Low Profile
Type no.	1399.99.0284
Frequency range	790 – 6425 MHz
Gain	5 dBi
Height	40 mm
Description Rugged military vehicle antenna for Jamming and Communication applications. Broadband performance starting at 790 Mhz up to 6.425 GHz. Supports 2G/3G/4G cellular, Wifi 2.4/5 GHz, Wifi 6E. Embedded GNSS antenna with integrated LNA supports GPS L1, Galileo E1, BeiDou B1 and GLONASS G1. Meets MIL-STD 810H. Extremely low profile (40mm).	
Item no.	85244558

Electrical data per band	Band 1	Band 2	Band 3
Frequency	790 – 806 MHz	806 – 870 MHz	870 – 960 MHz
VSWR	2.2	1.9	1.6
Gain	5 dBi	5 dBi	5 dBi
Ambient Temperature	25 °C	25 °C	25 °C
Composite Power max	80 W	80 W	80 W
	Band 4	Band 5	Band 6
Frequency	1359 – 2700 MHz	4600 – 6425 MHz	1559 – 1610 MHz
VSWR	2	2.1	1.8
Gain	5 dBi	5 dBi	
Ambient Temperature	25 °C	25 °C	
Composite Power max	80 W	80 W	

Electrical data	
Impedance	50 Ohm
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.2×0.2 m or larger for the 806 – 6425 MHz frequency band. Indicated gain values will be achieved on a metallic ground plane of 1×1 m or larger.

Ports	Port 1	Port 2
Connector	N, jack (female)	TNC, plug (male)
Cable length		0.21 m
Polarization	vertical	circular right
DC Grounded	Yes	No

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Port 1	x	x	x	x	x	
Port 2						x

Electrical data LNA		Mechanical data	
LNA is connected to	Port 2	Weight	0.6 kg
Input voltage	3 V – 5 V	Dimensions (height × width × depth)	40 mm × 100 mm × 145 mm
Current consumption	20 mA	Remarks	Low corrosion design according to MIL-F-14072(E).
Noise figure	1.6 dB	Interface and material data	
Total gain @90° elevation	30 dBic	Radome material	PC (Polycarbonate)
		Radome colour	black

Communication incl. GPS



Ordering information	SENCITY® Shield MIMO
Type no.	1399.99.0286
Frequency range	617 – 7125 MHz
Gain	5 – 7.5 dBi
Height	81.6 mm
Description	
- Rugged military vehicle antenna for Jamming and Communication applications. - Supports 2x2 Cellular MIMO for 3G, 4G and 5G. - Supports 2x2 Wi-Fi MIMO in all Wi-Fi 6E bands. - Embedded GNSS antenna with integrated LNA supports GPS L1, Galileo E1, BeiDou B1 and GLONASS G1 - Meets MIL-STD 810H	
Item no.	85244560

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	617 – 694 MHz	694 – 790 MHz	790 – 960 MHz	1350 – 2700 MHz
VSWR	1.7	1.7	1.7	1.8
Gain	6 dBi	5 dBi	6 dBi	7.5 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite power max.	80 W	80 W	80 W	80 W
	Band 5	Band 6	Band 7	Band 8
Frequency	2700 – 3300 MHz	3300 – 4900 MHz	4900 – 7125 MHz	1559 – 1610 MHz
VSWR	2	2.1	1.9	1.8
Gain	6.5 dBi	6.5 dBi	7.5 dBi	
Ambient Temperature	25 °C	25 °C	25 °C	
Composite power max.	80 W	80 W	80 W	

Electrical data	
Impedance	50 Ohm
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.5 × 0.5 m or larger. In the 790 – 7125 MHz band, Indicated VSWR values are also valid for installations on non-metallic surfaces (no specific ground plane requirements). Indicated gain values will be achieved on a metallic ground plane of 1×1 m or larger.

Ports	Port 1	Port 2	Port 3
Connector	N, jack (female)	N, jack (female)	TNC, plug (male)
Cable type	RADOX_RF_142	RADOX_RF_142	
Cable length	0.24 m	0.12 m	0.17 m
Polarization	vertical	vertical	circular right
DC Grounded	Yes	Yes	

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7	Band 8
Port 1	x	x	x	x	x	x	x	
Port 2	x	x	x	x	x	x	x	
Port 3								x

Electrical data LNA		Mechanical data	
LNA is connected to	Port 3	Dimensions (height × width × depth)	81.6 mm × 102.5 mm × 352.5 mm
Input voltage	3 V – 5 V	Remarks	Low corrosion design according to MIL-DTL-14072(E).
Current consumption	20 mA	Interface and material data	
Noise figure	1.6 dB	Radome material	PC (Polycarbonate)
Total gain @90° elevation	30 dBic	Radome colour	black

Communication incl. GPS



Ordering information	SENCITY® Shield
Type no.	1399.99.0287
Frequency range	694 – 960 / 1350 – 6425 MHz
Gain	5 – 8.5 dBi
Height	99 mm
Description	
- Rugged military vehicle antenna for Jamming and Communication applications. - Broadband performance starting at 694 Mhz up to 6.425 GHz - Supports 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 - Meets MIL-STD 810H - Low profile design.	
Item no.	85244779

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	694 – 790 MHz	790 – 960 MHz	1350 – 1710 MHz	1710 – 2700 MHz
VSWR	2	1.5	2.2	1.5
Gain	5 dBi	5 dBi	6 dBi	6 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite power max.	80 W	80 W	80 W	80 W
	Band 5	Band 6	Band 7	Band 8
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	
Ambient Temperature	25 °C	25 °C	25 °C	
Composite power max.	80 W	80 W	80 W	

Electrical data	
Impedance	50 Ohm
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.5 × 0.5 m or larger. In the 790 – 7125 MHz band, Indicated VSWR values are also valid for installations on non-metallic surfaces (no specific ground plane requirements). Indicated gain values will be achieved on a metallic ground plane of 1×1 m or larger.

Ports	Port 1	Port 2
Connector	N, jack (female)	TNC, plug (male)
Cable length		0.21 m
Polarization	vertical	circular right
DC Grounded	Yes	No

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7	Band 8
Port 1	x	x	x	x	x	x	x	
Port 2								x

Electrical data LNA		Mechanical data	
LNA is connected to	Port 2	Weight	1.1 kg
Input voltage	3 V – 5 V	Dimensions (height × width × depth)	90 mm × 100 mm × 256 mm
Current consumption	20 mA	Remarks	Low corrosion design according to MIL-F-14072(E).
Noise figure	1.6 dB	Interface and material data	
Total gain @90° elevation	30 dBic	Radome material	PC (Polycarbonate)
		Radome colour	black

Communication incl. GPS



Ordering information	SENCITY® Shield Ultra
Type no.	1399.99.0288
Frequency range	380 – 960 / 1350 – 6425 MHz
Gain	3 – 8 dBi
Height	154 mm
Description	
• Rugged military vehicle antenna for Jamming and Communication applications. • Ultra broadband performance starting at 380 MHz up to 7.125 GHz. • Supports TETRA, LTE450, 2G/3G/4G/5G cellular, Wifi 2.4/5 GHz, Wifi 6E and GNSS (Beidou, Galileo, GPS, Glonass) • Meets MIL-STD 810H	
Item no.	85245226

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	380 – 694 MHz	694 – 960 MHz	1350 – 2700 MHz	2700 – 3300 MHz
VSWR	1.8	1.8	1.5	1.5
Gain	3 dBi	4 dBi	7.5 dBi	6.5 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite power max.	80 W	80 W	80 W	80 W
	Band 5	Band 6	Band 7	
Frequency	3300 – 4900 MHz	4900 – 6425 MHz	1559 – 1610 MHz	
VSWR	1.7	1.5	1.8	
Gain	7 dBi	8 dBi		
Ambient Temperature	25 °C	25 °C		
Composite power max.	80 W	80 W		

Electrical data	
Impedance	50 Ohm
Remarks	Indicated VSWR values are valid for a metallic ground plane of 0.5 × 0.5 m or larger. Indicated gain values will be achieved on a metallic ground plane of 1 × 1 m or larger.

Ports	Port 1	Port 2
Connector	N, jack (female)	TNC, plug (male)
Cable length		0.21 m
Polarization	vertical	circular right
DC Grounded	Yes	No

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7
Port 1	x	x	x	x	x	x	
Port 2							x

Electrical data LNA		Mechanical data	
LNA is connected to	Port 2	Weight	1.5 kg
Input voltage	3 V – 5 V	Dimensions (height × width × depth)	154 mm × 100 mm × 256 mm
Current consumption	20 mA	Remarks	Low corrosion design according to MIL-F-14072(E).
Noise figure	1.6 dB	Interface and material data	
Total gain @90° elevation	30 dBic	Radome material	PC (Polycarbonate)
		Radome colour	black

Communication incl. GPS



Ordering information	SENCITY® Mag.-Mount antenna
Type no.	1399.19.0060
Frequency range	380 – 7125 MHz
Gain	4 – 6 dBi
Height	130 mm
Description	
• Rugged military vehicle rooftop multi-band antenna with magnet mount for heavy duty vehicles. • Supports 2G/3G/4G/5G cellular, Wifi 2.4/5 GHz, Wifi 6, TETRA and GNSS (Beidou, Galileo, GPS, Glonass). • 6 separate ports for 2x2 cellular MIMO and 2x2 Wifi MIMO, TETRA plus GNSS.	

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Frequency	380 – 430 MHz	698 – 960 MHz	1710 – 2690 MHz	2400 – 2500 MHz
VSWR	2	2	2	2
Impedance	50 Ohm	50 Ohm	50 Ohm	50 Ohm
Gain	4 dBi	4 dBi	6 dBi	6 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
	Band 5	Band 6	Band 7	
Frequency	4900 – 6425 MHz	4900 – 7125 MHz	1559 – 1610 MHz	
VSWR	2	1.6	2	
Impedance	50 Ohm	50 Ohm		
Gain	6 dBi	6 dBi		
Ambient Temperature	25 °C	25 °C		

Ports	Port 1	Port 2	Port 3	Port 4	Port 5	Port 6
Port name	TETRA	LTE	LTE	Wi-Fi	Wi-Fi	GNSS
Connector	SMA, jack (female)	SMA, jack (female)	SMA, jack (female)	SMA, jack (female)	SMA, jack (female)	SMA, jack (female)
Polarization	vertical	vertical	vertical	vertical	vertical	circular right
DC grounded	No	No	No	Yes	Yes	No

Connections	Band 1	Band 2	Band 3	Band 4	Band 5	Band 6
Port 1	x					
Port 2		x	x			
Port 3		x	x			
Port 4				x	x	
Port 5				x	x	
Port 6						x

General data	
	Ground plane: Indicated VSWR values are valid for a metallic ground plane of 0.5 × 0.5 m or larger. Indicated VSWR values are mostly valid for installations on non-metallic surfaces also (no specific ground plane requirements), apart from VSWR 2.5 below 840 MHz and VSWR 3 below 750 MHz.

→

Electrical data LNA

LNA noise figure	2 dB
LNA current consumption	30 mA
LNA is connected to	Port 6
EMC	EN 50121-3-2
LNA input voltage range	3 – 5V
Total gain @90° elevation	30 dBiC

Values for LNA power consumption, noise figure and gain are given for a 5V operating voltage and may differ slightly for a lower voltage

Mechanical data

Dimensions (height × width × depth)	130 × 83 × 250 mm
Weight	2.5 kg
Height of whip antenna	440 mm

Environmental data

Environmental conditions	outdoor	2011/65/EU (RoHS – including 2015/863 and 2017/2102)	compliant
Operation temperature	–40 to 85 °C	REACH 1907/2006/EC	compliant
Storage temperature	–55 to 85 °C	Flammability: ECE-R118, EN 45545-2	
Transport temperature	–40 to 85 °C	Environmental tests: ISO 16750:2010	
IP rating	IP68, IP69	Environmental tests: ISO 50155	
Solar radiation	DIN 75220	Low corrosion designed acc. to MIL-F-14072D	

Material data

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

Additional views

MIMO antenna



Ordering information	SENCITY® Tram MULTI
Type no.	1399.99.0253
Frequency range	380 – 7125 MHz
Gain	2 – 6 dBi
Height	60 mm
Description	
• Supports TETRA, LTE450, 2G/3G/4G/5G cellular, Wifi 2.4/5 GHz, Wifi 6E and Dual Band GNSS (Beidou, Galileo, GPS, Glonass) • 7 separate ports for 2x2 TETRA/cellular MIMO and 4x4 Wifi MIMO plus GNSS • Fire retardant acc. to EN45545-2 and NFPA-130 • Meets EN50155 railway standard • Single hole mounting, easy cabling feedthrough	
Item no.	85185041

Electrical data per band	Band 1	Band 2	Band 3	Band 4
Name	TETRA/LTE450	Cellular	Cellular	Cellular
Frequency	380 – 470 MHz	617 – 960 MHz	1350 – 2700 MHz	3300 – 4200 MHz
VSWR	2.5	2.1	2.1	2.1
Gain	3 dBi	2 dBi	4 dBi	4 dBi
Isolation between Ports	3 dBi	8 dBi	15 dBi	20 dBi
Ambient Temperature	25 °C	25 °C	25 °C	25 °C
Composite Power max	40 W	40 W	40 W	40 W
	Band 5	Band 6	Band 7	Band 8
Name	Cellular	Wi-Fi	Wi-Fi	GNSS
Frequency	4900 – 7125 MHz	2400 – 2500 MHz	4900 – 7125 MHz	1164 – 1279 MHz
VSWR	2.1	2.1	2.1	1.5
Gain	5 dBi	6 dBi	6 dBi	
Isolation between Ports	20 dBi	20 dBi	20 dBi	
Ambient Temperature	25 °C	25 °C	25 °C	
Composite Power max	40 W	30 W	30 W	
	Band 9			
Name	GNSS			
Frequency	1559 – 1610 MHz			
VSWR	1.8			

Electrical data	
Impedance	50 Ohm

Ports	Port 1 to 2	Port 3 to 6	Port 7
Port name	Tetra 1-2 (White)	Wi-Fi 1-4 (blue)	GNSS (black)
Connector	SMA, plug (male)	SMA, plug (male)	TNC, plug (male)
Cable media type	RADOX_RF_316_D	RADOX_RF_316_D	RADOX_RF_316_D
Cable length	0.3 m	0.3 m	0.3 m
Polarization	vertical	vertical	circular right
DC grounded	Yes	Yes	No



Connections			
	Port 1 to 2	Port 3 to 6	Port 7
Band 1	x		
Band 2	x		
Band 3	x		
Band 4	x		
Band 5	x		
Band 6		x	
Band 7		x	
Band 8			x
Band 9			x

Electrical data LNA	
LNA is connected to	Port 7
Input voltage	3 – 5 V
Current consumption	45 mA
Noise figure	2 dB
Gain	38 dB
Total gain @90° elevation	42 dBiC

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

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

Environmental data		
Operation temperature	–40 to 85 °C	
Storage temperature	–40 to 85 °C	
Transport temperature	–40 to 85 °C	
Environment (application)	Outdoor	
Ingress protection (IP Rating)	Mated / IP68, IP69k	
Flammability rating	EN 45545-2	NFPA-130
Solar radiation	DIN 75220	
	CE	

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

Environmental remarks	
Environmental tests	EN50155:2018-05
High-voltage protection	EN50124-1:2017-03 (tested without stick antenna)
Low corrosion designed acc. to MIL-F-14072D	
This Antenna is compliant with the Radio Equipment Directive 2014/53/EU	

Other vehicle antennas

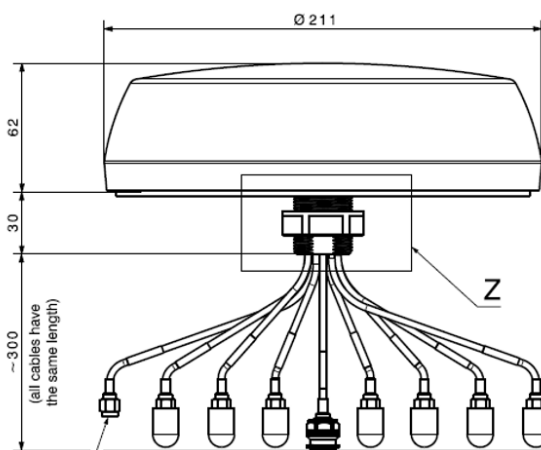
The SENCITY® Tram MULTI portfolio is designed for 4×4 MIMO operation in cellular, 8×8 MIMO in Wi-Fi networks and in addition comes with 2×2 TETRA options. It offers a variety of combinations of up to 9 radiators within one housing and comes with an GNSS option for L1, L2, L5 operation. The standard versions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

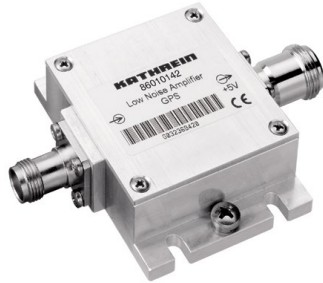
Product ID	Article No.	Cellular	Wi-Fi	TETRA	GNSS
1399.19.0236	85185418		8		
1399.99.0237	85185419		8		L1+L2+L5
1399.99.0236	85185420		8		L1
1399.19.0238	85185512			1	
1399.99.0239	85185513			1	L1+L2+L5
1399.99.0238	85185514			1	L1
1399.19.0240	85185515		2	1	
1399.99.0241	85185516		2	1	L1+L2+L5
1399.99.0240	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

Description	Type no.	Height	Page
SENCITY® Tram MULTI 380 – 7125 MHz 2 – 6 dBi 7 separate ports for 2×2 TETRA/cellular MIMO and 4×4 Wifi MIMO plus GNSS	1399.99.0253	60 mm	60

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



Low noise amplifier GNSS

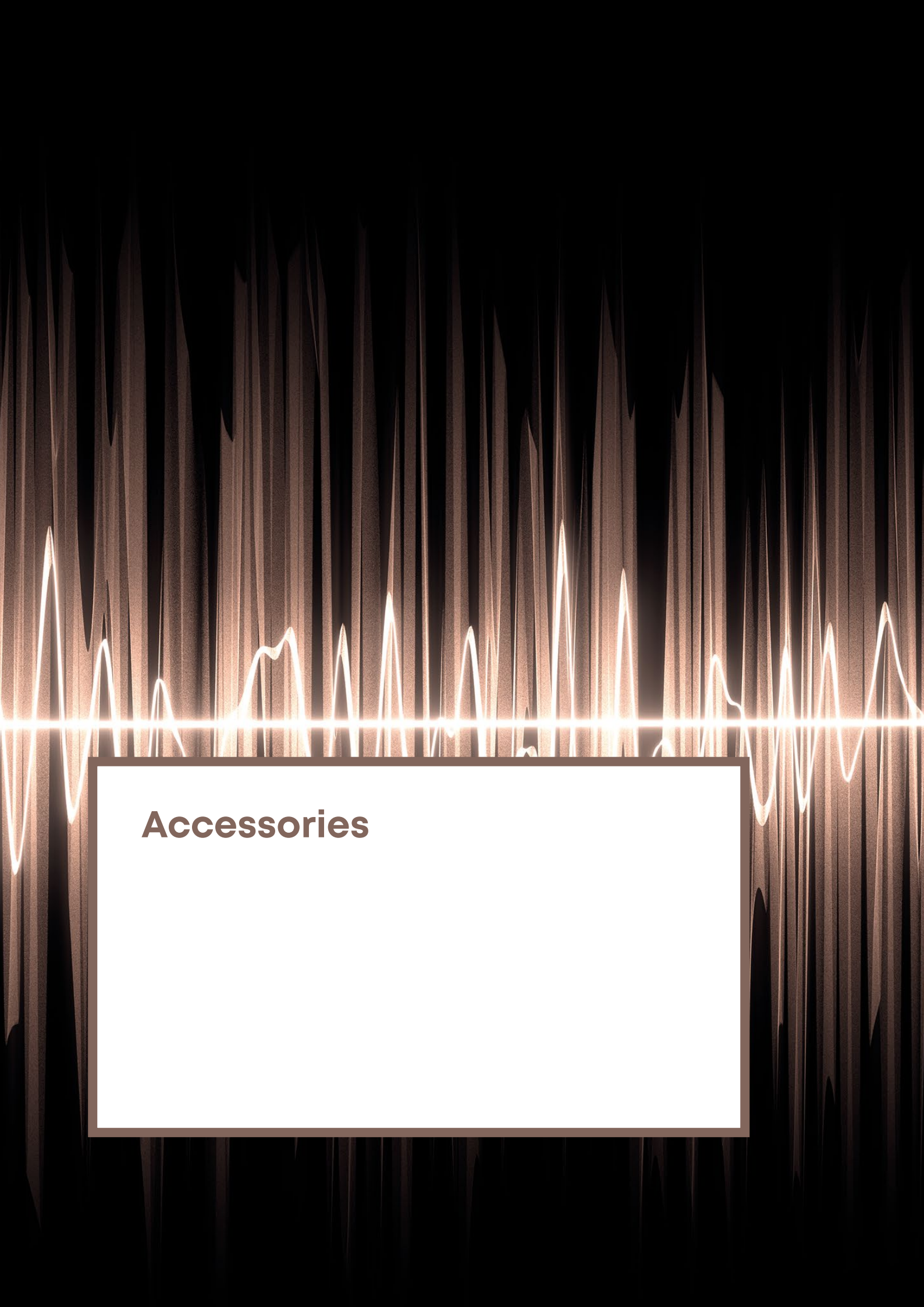


Ordering information	Low noise amplifier GNSS
Type no.	86010142
Frequency range	1559 – 1609 MHz
Gain	25 dB
Version	TNC, N (female)
Height	70 mm
Description	
- The low noise amplifier 86010142 is designed for the use inside vehicles with train antennas with GNSS. - It includes a preselection filter to 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.	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



Accessories

Accessories

Overview

Clamps

Description	Mast diameter	Type no.	Item no.	Page
Tension band	45 – 125 mm	734365	84468505	104
Tension band	120 – 140 mm	734364	84468692	104
Clamp for panel antennas	28 – 60 mm	731651	84468695	104
Clamp for panel antennas	42 – 115 mm	738546	84468512	104
Clamp for panel antennas	110 – 220 mm	85010002	84468516	104
Clamp for panel antennas	210 – 380 mm	85010003	84476982	104

Downtilt

Description	Type no.	Item no.	Page
Downtilt for panel antennas	light	737978	84468509
Downtilt for panel antennas	medium/heavy	85010009	84492856

Lightning protector

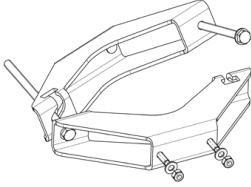
Description	Type no.	Item no.	Page
EMP Protector	380 – 512 MHz	7/16 connector	3400.41.0203
EMP Protector	806 – 2500 MHz	7/16 connector	3400.41.0204
EMP Protector	380 – 700 MHz	4.3-10 connector	3400.31.0023
EMP Protector	690 – 2700 MHz	4.3-10 connector	3400.31.0001

Remote control unit

Description	Type no.	Item no.	Page
Remote control unit for adjustable electrical tilt	86010148V01	84468526	105
RET cable for power supply and control	0.5 m	86010054	84480770
RET cable for power supply and control	1 m	86010007	84480772
RET cable for power supply and control	2 m	86010008	84480774
RET cable for power supply and control	3 m	86010029	84480776
RET cable for power supply and control	5 m	86010009	84468524
RET cable for power supply and control	10 m	86010010	84480778
RET cable for power supply and control	20 m	86010032	84480780
RET cable for power supply and control	50 m	86010033	84480782

Clamps

Ordering information

Type no.	Item no.	Description	
734365	84468505	Tension band 45 – 125 mm	
734364	84468692	Tension band 120 – 140 mm	
731651	84468695	Clamp 28 – 60mm L/M	
738546	84468512	Clamp 42 – 115 mm	
85010002	84468516	Clamp 110 – 220 mm	
85010003	84476982	Clamp 210 – 380 mm	

Downtilt

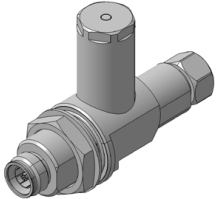
Ordering information

Type no.	Item no.	Description	
737978	84468509	Downtilt kit light	
85010009	84492856	Downtilt kit medium/heavy	

Lightning protector

More types see separate catalogue

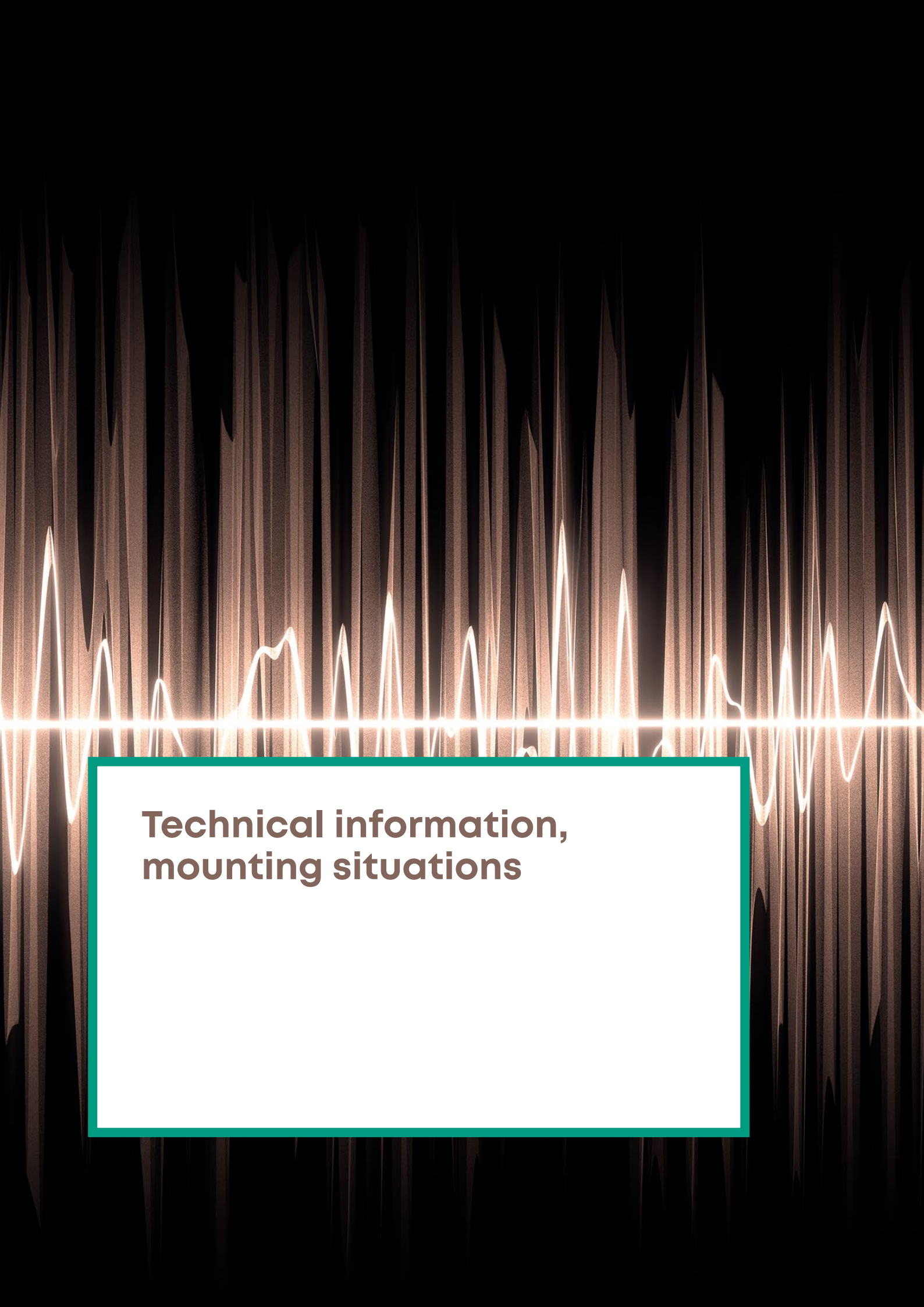
Ordering information

Type no.	Item no.	Description	
3400.41.0203	23030133	EMP Protector 380 – 512 MHz Quarter-wave stub technology 7/16 connector	
3400.41.0204	23030180	EMP Protector 806 – 2500 MHz Quarter-wave stub technology Broad-band design 7/16 connector	
3400.31.0023	85215657	EMP Protector 380 – 700 MHz Quarter-wave stub technology Broad-band design Ready for TETRA and LTE410, 450 and 700 MHz NEMP tested 4.3-10 connector	
3400.31.0001	85020284	EMP Protector 690 – 2700 MHz Quarter-wave stub technology Broad-band design 4.3-10 connector	

Remote control unit

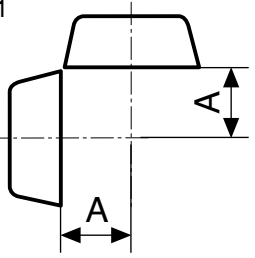
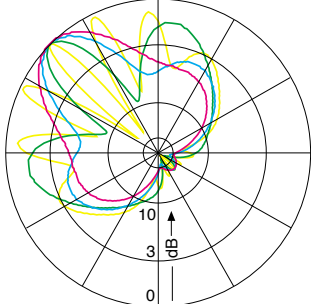
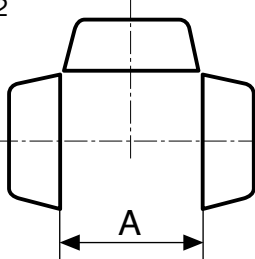
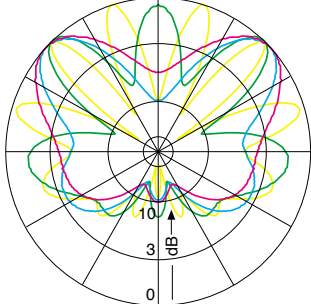
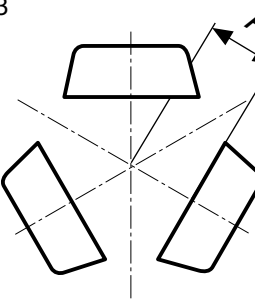
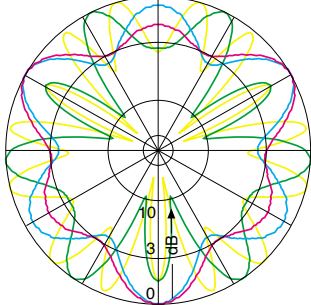
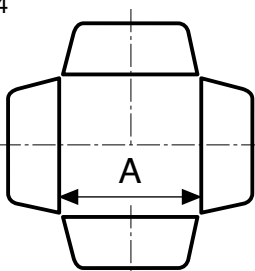
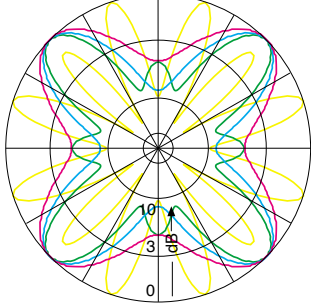
Ordering information

Type no.	Item no.	Description	
86010148V01	84468526	remote control unit	
86010054	84480770	control cable AISG 0.5 m	
86010007	84480772	control cable AISG 1 m	
86010008	84480774	control cable AISG 2 m	
86010029	84480776	control cable AISG 3 m	
86010009	84468524	control cable AISG 5 m	
86010010	84480778	control cable AISG 10 m	
86010032	84480780	control cable AISG 20 m	
86010033	84480782	control cable AISG 50 m	

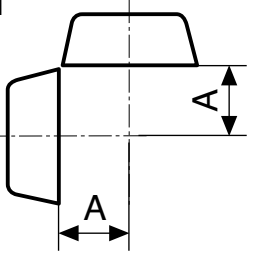
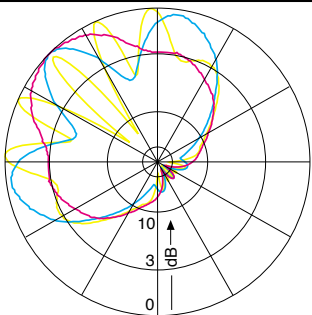
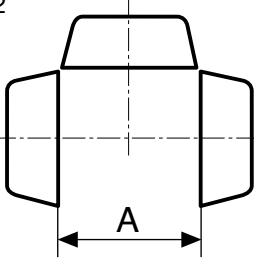
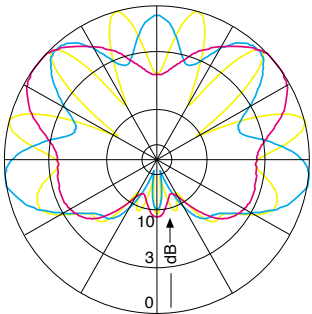
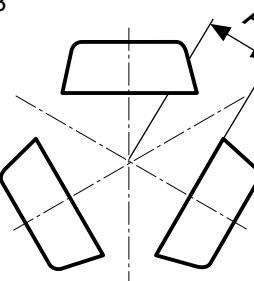
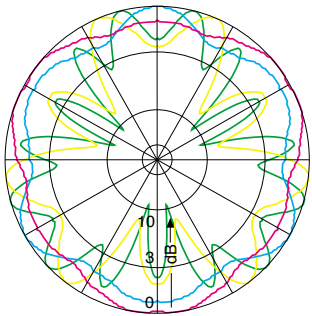
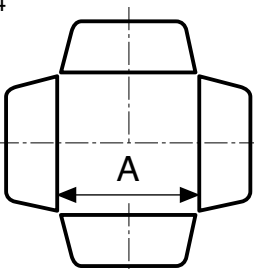
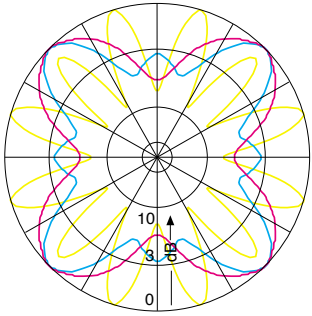


Technical information, mounting situations

Examples of Radiation Patterns at 390 MHz with Combinations of Panels 852628 (XPol)

Arrangement	Horizontal Radiation Pattern	Technical Data									
1 		Distance A <table><tr><td>0.16 m</td><td>9.85 dBi</td></tr><tr><td>0.25 m</td><td>9.95 dBi</td></tr><tr><td>0.5 m</td><td>9.45 dBi</td></tr><tr><td>1.5 m</td><td>9.55 dBi</td></tr></table>	0.16 m	9.85 dBi	0.25 m	9.95 dBi	0.5 m	9.45 dBi	1.5 m	9.55 dBi	100 % rel. field strength corresponds to a gain of
0.16 m	9.85 dBi										
0.25 m	9.95 dBi										
0.5 m	9.45 dBi										
1.5 m	9.55 dBi										
2 		Distance A <table><tr><td>0.32 m</td><td>7.75 dBi</td></tr><tr><td>0.5 m</td><td>8.15 dBi</td></tr><tr><td>1.0 m</td><td>7.85 dBi</td></tr><tr><td>2.0 m</td><td>7.95 dBi</td></tr></table>	0.32 m	7.75 dBi	0.5 m	8.15 dBi	1.0 m	7.85 dBi	2.0 m	7.95 dBi	100 % rel. field strength corresponds to a gain of
0.32 m	7.75 dBi										
0.5 m	8.15 dBi										
1.0 m	7.85 dBi										
2.0 m	7.95 dBi										
3 		Distance A <table><tr><td>0.16 m</td><td>5.85 dBi</td></tr><tr><td>0.22 m</td><td>5.75 dBi</td></tr><tr><td>0.65 m</td><td>6.55 dBi</td></tr><tr><td>1.1 m</td><td>6.35 dBi</td></tr></table>	0.16 m	5.85 dBi	0.22 m	5.75 dBi	0.65 m	6.55 dBi	1.1 m	6.35 dBi	100 % rel. field strength corresponds to a gain of
0.16 m	5.85 dBi										
0.22 m	5.75 dBi										
0.65 m	6.55 dBi										
1.1 m	6.35 dBi										
4 		Distance A <table><tr><td>0.32 m</td><td>6.15 dBi</td></tr><tr><td>0.5 m</td><td>7.15 dBi</td></tr><tr><td>0.8 m</td><td>7.65 dBi</td></tr><tr><td>2.1 m</td><td>7.35 dBi</td></tr></table>	0.32 m	6.15 dBi	0.5 m	7.15 dBi	0.8 m	7.65 dBi	2.1 m	7.35 dBi	100 % rel. field strength corresponds to a gain of
0.32 m	6.15 dBi										
0.5 m	7.15 dBi										
0.8 m	7.65 dBi										
2.1 m	7.35 dBi										

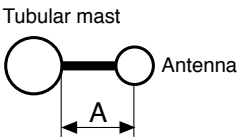
Examples of Radiation Patterns at 390 MHz with Combinations of Panels 91121363 (VPol)

Arrangement	Horizontal Radiation Pattern	Technical Data	
1 		Distance A	100 % rel. field strength corresponds to a gain of
		0.25 m	9.55 dBi
		0.5 m	9.35 dBi
		1.5 m	9.85 dBi
2 		Distance A	100 % rel. field strength corresponds to a gain of
		0.5 m	8.05 dBi
		1.0 m	7.75 dBi
		2.0 m	8.35 dBi
3 		Distance A	100 % rel. field strength corresponds to a gain of
		0.16 m	5.45 dBi
		0.22 m	5.75 dBi
		0.65 m	6.95 dBi
		1.1 m	6.95 dBi
4 		Distance A	100 % rel. field strength corresponds to a gain of
		0.5 m	6.85 dBi
		0.8 m	7.35 dBi
		2.1 m	7.45 dBi

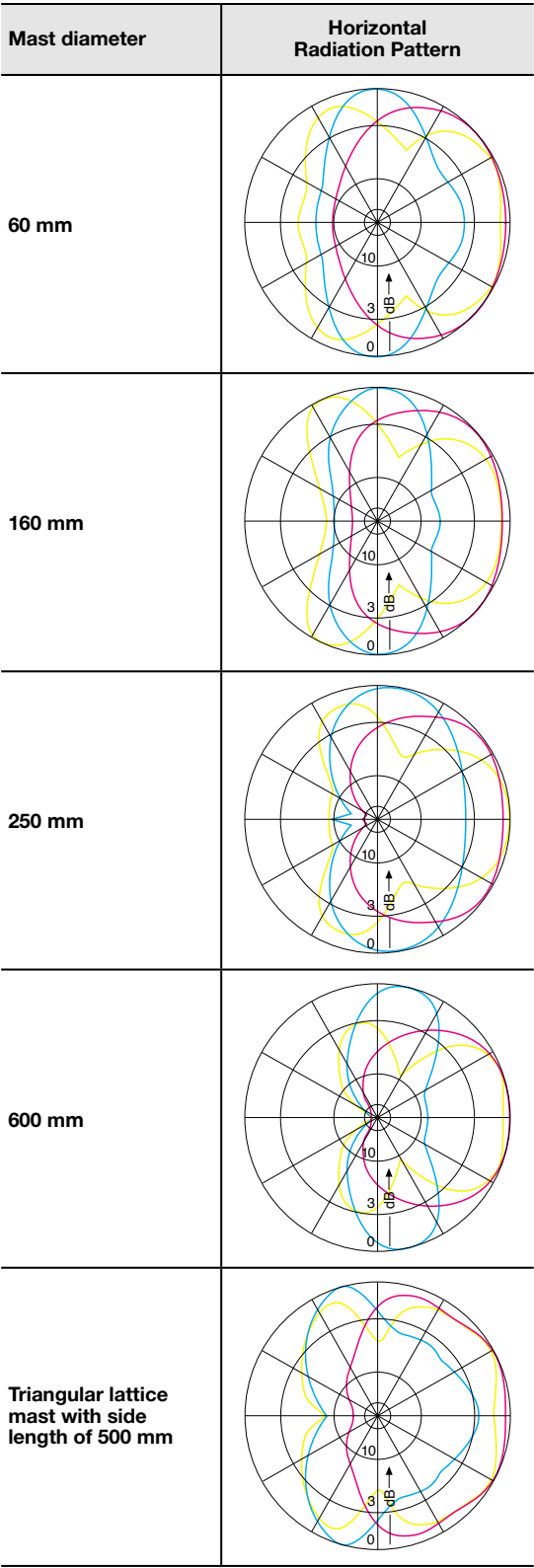
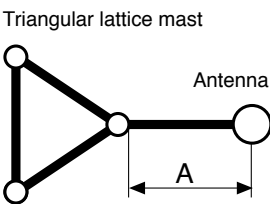
Radiation Patterns for Side-mounted Omnidirectional Antennas

Examples of horizontal radiation patterns for different mast diameters where $A = 0.25 \lambda$; 0.5λ ; 0.75λ . Examples also apply for antenna K75292.

Distance A:

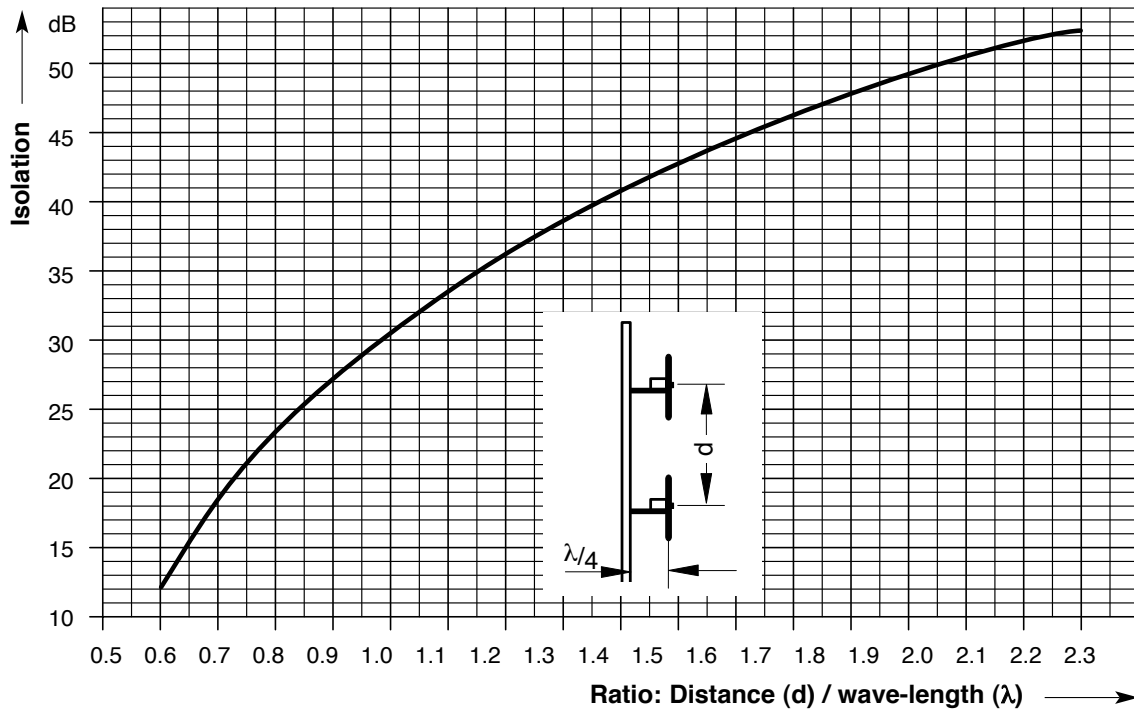


- $A = 0.25 \lambda$
- $A = 0.5 \lambda$
- $A = 0.75 \lambda$

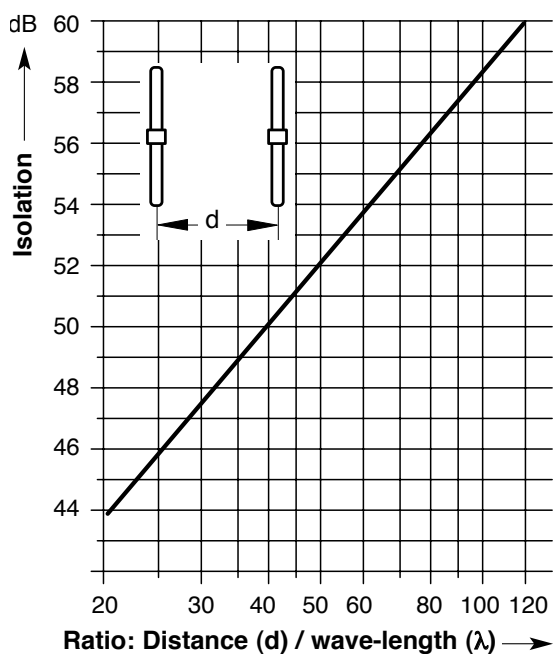
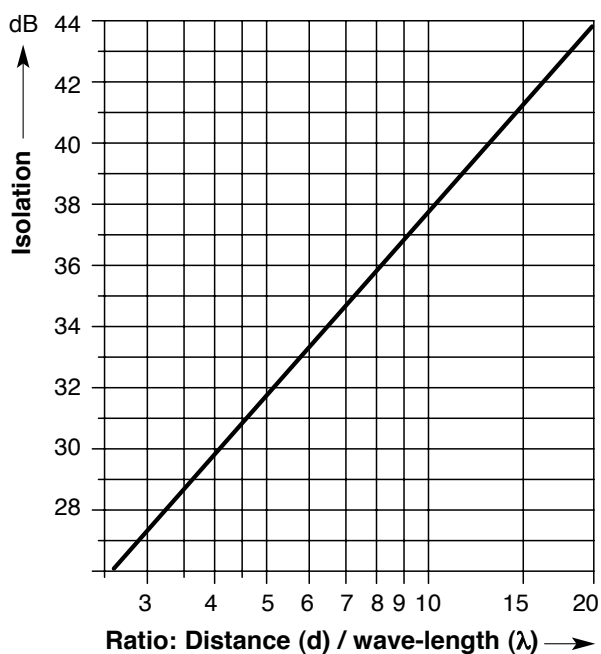


Isolation Between Two Half-wave Dipoles

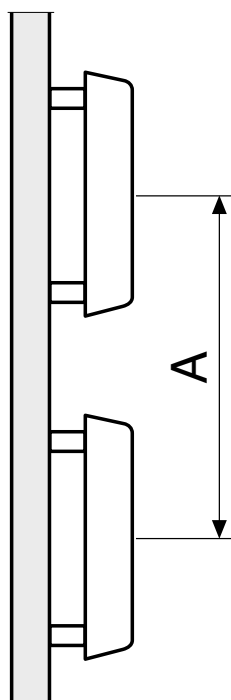
Isolation between two half-wave dipoles, vertically polarized and positioned vertically in line above each other on one common mast.



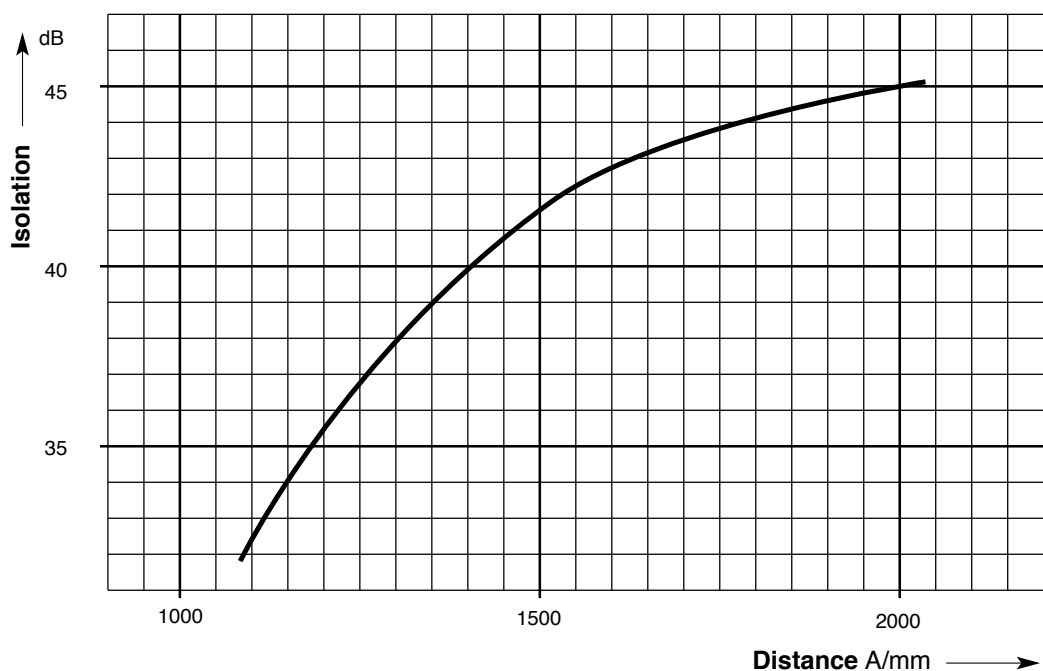
Isolation between two vertically polarized half-wave dipoles mounted laterally.



Isolation of Two Vertically Stacked Panels 91121363

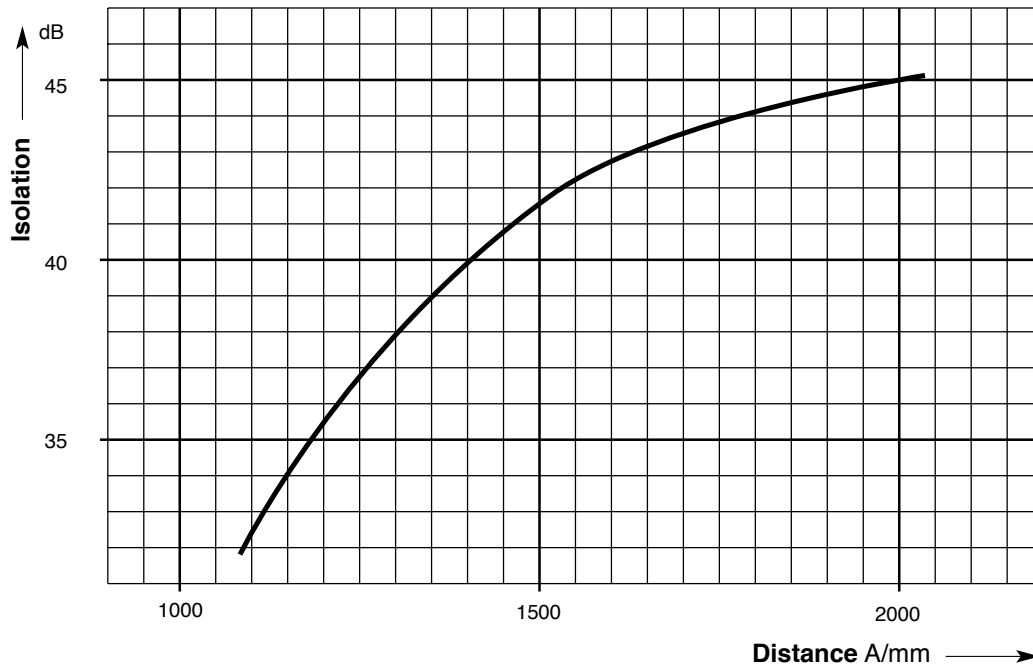


Isolation depends on vertical spacing A (at 450 MHz)

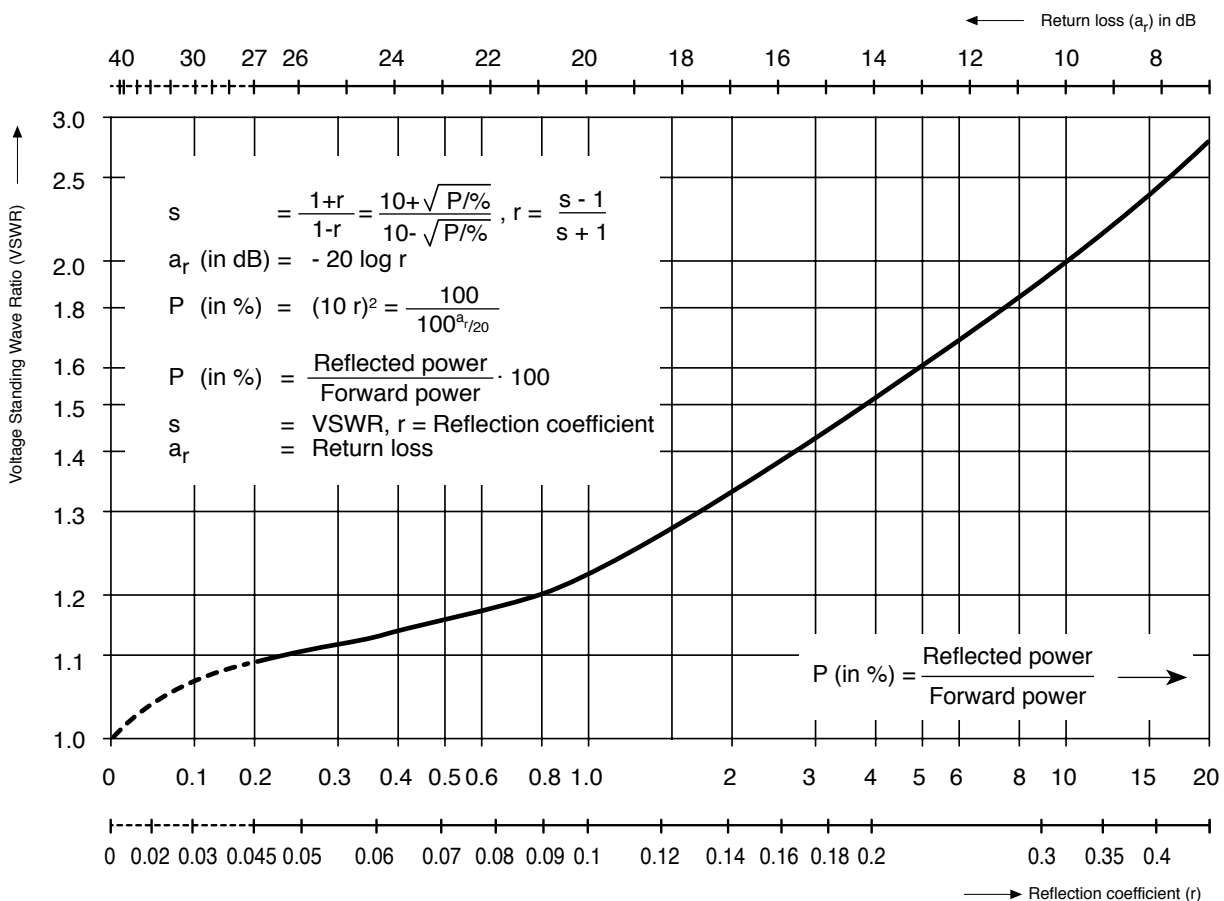


Antenna Gain, VSWR / Reflected power

Isolation depends on vertical spacing A (at 450 MHz)

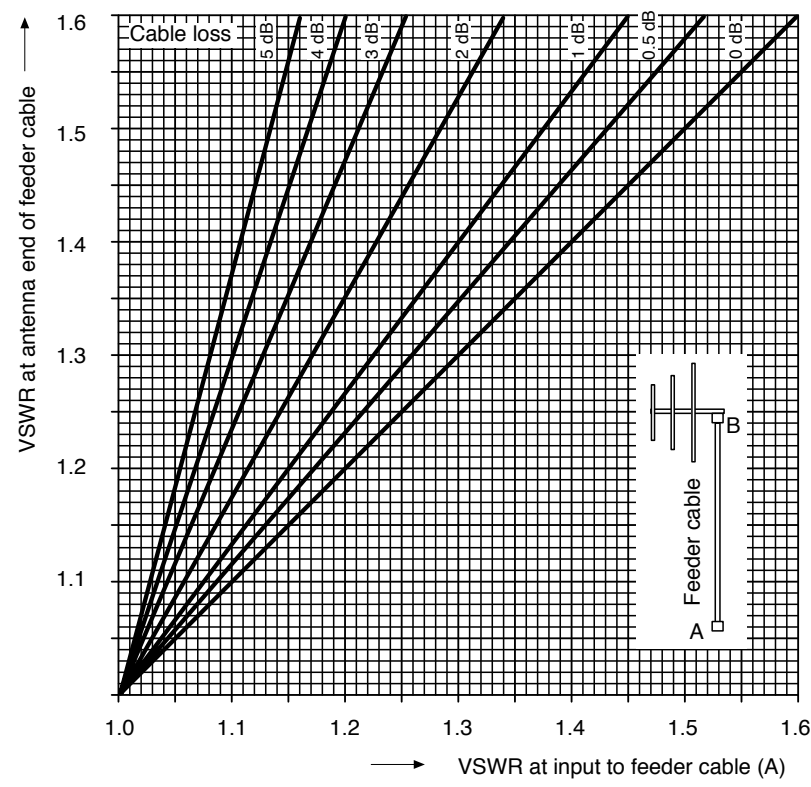


Voltage Standing Wave Ratio (VSWR) vs Reflected power

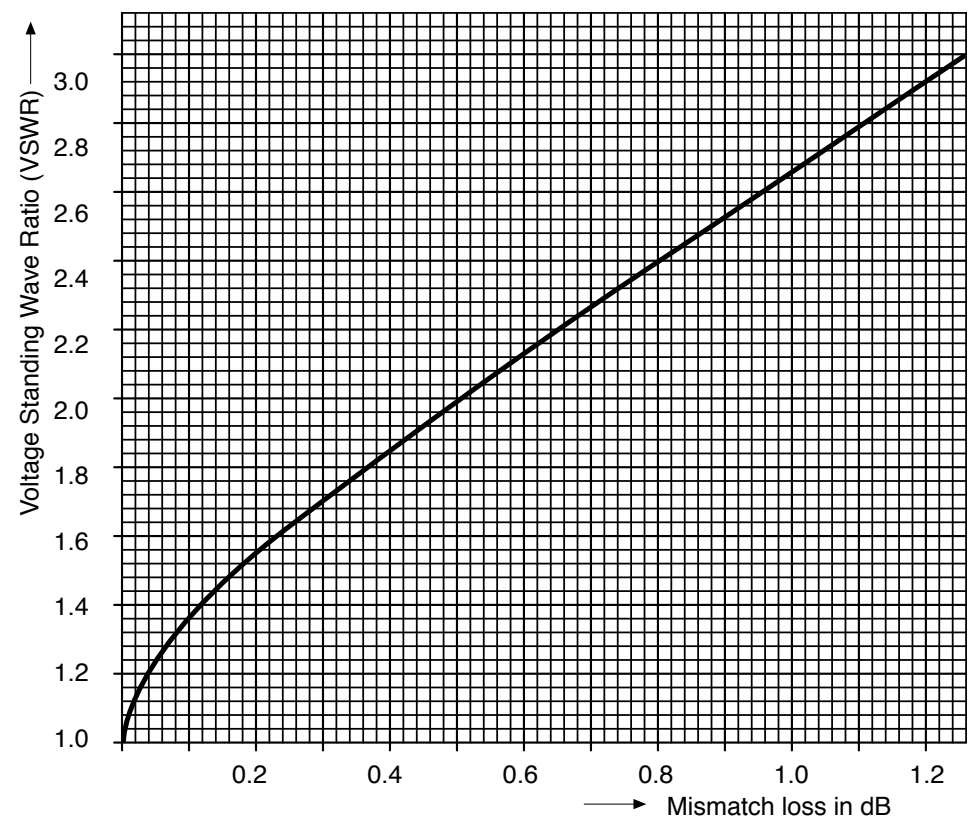


VSWR-reduction / Mismatch loss

Reduction of VSWR as a result of feeder cable attenuation



Mismatch loss vs VSWR



HUBER+SUHNER AG
Radio Frequency
Degersheimerstrasse 14
9100 Herisau
Switzerland
Phone +41 71 353 41 11
hubersuhner.com

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