

## SENCITY® Rail ACTIVE In-Carriage Antenna 1499.00.0015

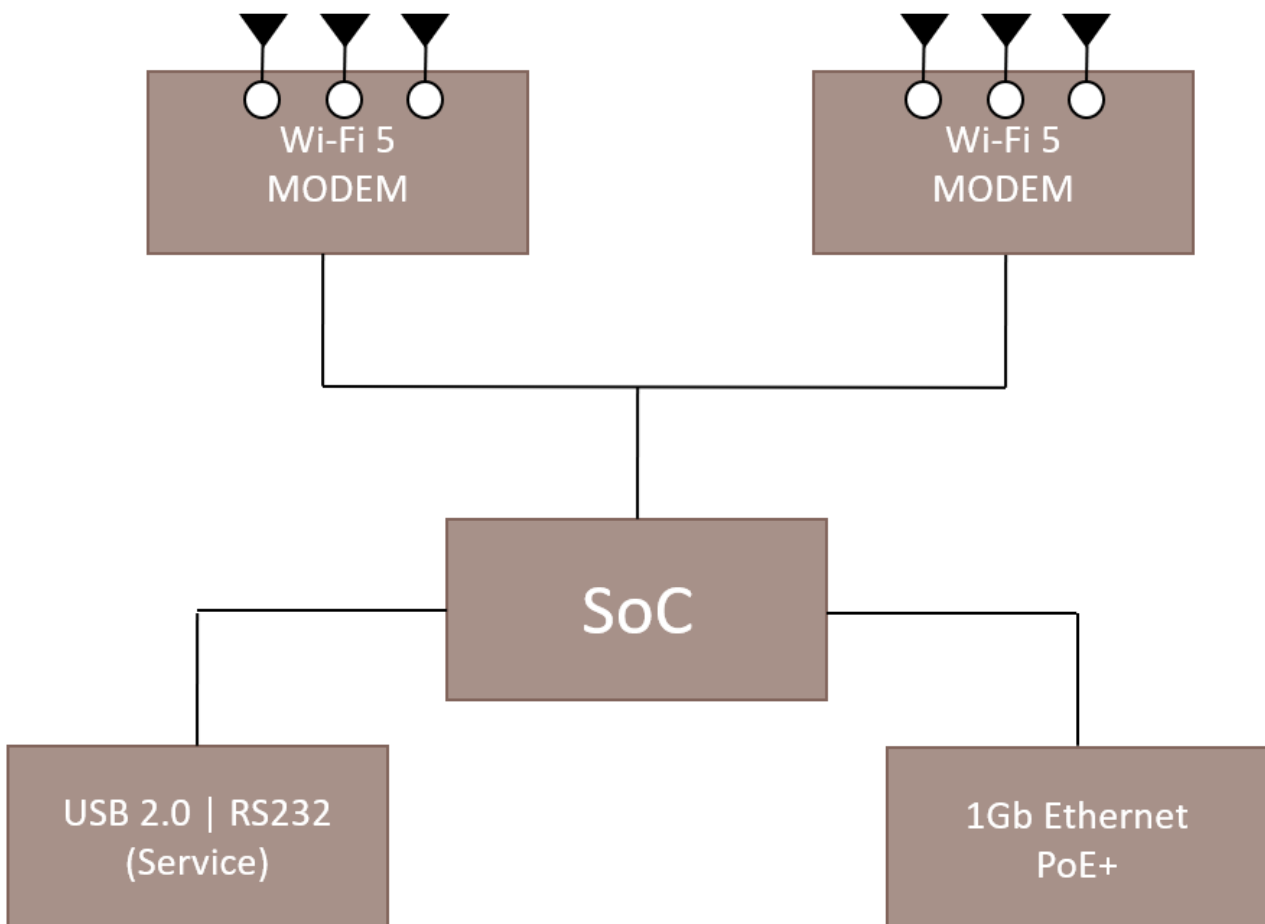
### Description

Railway in-carriage omni-directional antenna for passenger Wi-Fi services.  
 Includes integrated SoC and 2x Wi-Fi 5 compliant radios with 3x3 MIMO.  
 Up to two Wi-Fi interfaces for dual band mode.  
 Connection provided via a single 1 Gigabit Ethernet on M12 X-coded connector.  
 Power over Ethernet (PoE+) according to IEEE 802.3at.  
 No external RF cables required.  
 Supports up to 128 clients per radio.  
 -40 °C to +70 °C operating temperature.  
 Rugged design meeting the EN 50155 Railway Standard.  
 Fire retardant according to EN 45545-2/NFPA-130.



### Product Configuration

#### Block Diagram



### Communication Services

Radio Modules: Compex© WLE900VX		
Supported Bands	Wi-Fi	802.11ac Wave 1, 3x3 MU-MIMO (5150-5825 MHz) 802.11n Wave 1 (2412-2472 MHz)

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### Mechanical Data

Dimensions (mm)	99 x 289 x 69 (Height x Width x Depth including mounting points and cooling fins)
Weight (kg)	1.20 (without packaging)

### Electrical Data

Processor	QorIQ® T1023 1200 MHz Dual-Core CPU
Memory	1GB RAM
Storage	128MB Flash
Operating System	Linux OS OpenWrt
Ethernet	1x 10/100/1000BaseT(X), M12 X-coded
Power input	PoE+ Class 4 (802.3at)
Power Consumption	13 W typ., 25 W max.
Encryption	AES, TKIP, WPA, WPA2, WPA3
Security	stateful firewall with multi-level client isolation

A reset switch available on the connector side

This Product is compliant with the following certifications:

Directive (EU) 2016/797	EN 50155 (IEC 60571)
	EN 45545-2 (HL 1 to HL 3)
	EN 61373 (Category 1, Class B)
RED – 2014/53/EU	EMC
	radio spectrum
	health & safety
USA FCC Title 47 CFR Part 15B	NFPA-130

### Environmental Data

Environmental conditions	indoor
Operation temperature (°C)	-40 to 70
Storage temperature (°C)	-40 to 70
Transport temperature (°C)	-40 to 70
IP rating	IP54
Flammability rating	EN 45545-2 R24 HL3
Solar radiation	UL 746C, F1
2011/65/EU (RoHS -including 2015/863)	compliant acc. Annex III
Lead-free soldered	yes
WEEE 2012/19/EU	no special marking needed
REACH 1907/2006/EC	compliant
MTBF	approx. 450.000 h

Flammability rating: EN45545-2:2020, NFPA-130:2021

Tested according to ISO 4589-2:2017, NFX 70-100-1:2006, ISO 5659-2:2011.

Environmental tests: EN 50155:2018-05

- §13.4.6 EN 60068-2-1:2008-01 Cold temperature test Ab, -40°C, 16h
- §13.4.5 EN 60068-2-2:2008-01 Dry heat test Be +70°C, 16h
- §13.4.7 EN 60068-2-30:2006-06 Damp heat cyclic test Db, +25/55°C, 2 cycles
- §13.4.10 EN 60068-2-11:2000-02 Salt mist test, 96h
- §13.4.11 EN 61373:2011-04 § 8, Cat. 1B Broadband Random Vibration
- §13.4.11 EN 61373:2011-04 § 9, Cat. 1B Increased Random Vibration
- §13.4.11 EN 61373:2011-04 § 10, Cat. 1B Mechanical shock
- §13.4.12 Ingress Protection EN 60529:2014-09 IP5X, IPX4

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### Material Data

Radome colour	RAL 9010 (Pure White)
Radome material	PC (Polycarbonate)
Back plate/base plate colour	RAL 9003 (Signal White)
Back plate/base plate material	Aluminium

### Related Documents

Mounting instruction	DOC-0001146579
Outline Drawing	DOU-01146578