

## Sencity Rail Excel Antenna 1356.17.0010

### Description

Railway rooftop directional high gain antenna for 5 GHz WiFi and WiMAX bands.  
 Rugged design, meets EN 50155 railway standard.  
 Vertically polarised radiation pattern.  
 Fire retardant acc. to DIN 5510-2, BS 6853, NF F16-101/102, EN 45545-2.  
 Works also on non-metallic surfaces.



### Product Configuration

#### Technical Data

##### Electrical Data

	Band 1	Band 2
Frequency (MHz)	4900 - 5150	5150 - 5975
VSWR	1.6	1.7
Impedance (Ohm)	50	50
Gain (dBi)	12	12
3dB beamwidth (h) (°)	48	48
3dB beamwidth (v) (°)	17	16
Composite power max (W)	300	300
Ambient temperature (°C)	25	25

##### Ports

	Port 1
Connector	N, jack (female)
Polarization	vertical
DC grounded	Yes

##### General Data

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 x 1 m or larger.

##### Mechanical Data

Dimensions (mm) 90 x 100 x 260 (Height x Width x Depth)  
 Weight (kg) 1.4

High-voltage-protection: no voltage on RF port, if the catenary line touches the antenna (EN 50124-1, 27.5 kVAC).

High-current-protection: Designed acc. to UIC 533, DC-grounded antenna element (protection against lightning and short circuit with catenary lines(40kA/0.1s).

Corrosion: Low corrosion design acc. to MIL-F-14072(E).

Mounting: Shall be installed in longitudinal position to the wind/driving direction.

##### Environmental Data

Environmental conditions indoor/outdoor  
 Operation temperature (°C) -40 to 85  
 Storage temperature (°C) -40 to 85  
 Transport temperature (°C) -40 to 85  
 IP rating IP65, IP67  
 Flammability rating DIN 5510  
 Solar radiation DIN 75220

## Sencity Rail Excel Antenna 1356.17.0010

2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
WEEE 2012/19/EU	no special marking needed
REACH 1907/2006/EC	compliant

Environmental tests: EN 50155:2004

Flammability rating DIN 5510-2, BS 6853, NF F16-101/102, EN 45545-2.

### Material Data

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

### Related Documents

Mounting instruction	DOC-0000257674
Painting instruction	DOC-0000256180
Security instruction	DOC-0000278984
Outline drawing	DOU-00103302
3D-model	DOC-0000329788

### Additional Information

This product meets the Deutsche Bahn specifications for rolling stock equipment.