

## Sencity Rail Excel Antenna 1324.17.0070

### Description

Railway rooftop bi-directional high gain antenna for WiFi-1 / Wi-Fi 3 bands.  
 Designed for use with dedicated trackside/tunnel antennas.  
 Supports the 2.4 to 2.65 GHz frequency 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	Band 3	Band 4
Frequency (MHz)	2400 - 2484	2484 - 2550	2550 - 2600	2600 - 2630
VSWR	1.5	1.5	1.5	1.5
Impedance (Ohm)	50	50	50	50
Gain (dBi)	13.5	13	12	11
3dB beamwidth (h) (°)	51	51	52	45
3dB beamwidth (v) (°)	24	25	23	24
Composite power max (W)	350	350	350	350
Ambient temperature (°C)	25	25	25	25

  

	Band 5
Frequency (MHz)	2630 - 2650
VSWR	1.5
Impedance (Ohm)	50
Gain (dBi)	10
3dB beamwidth (h) (°)	45
3dB beamwidth (v) (°)	24
Composite power max (W)	350
Ambient temperature (°C)	25

##### Ports

	Port 1	Port 2
Connector	N, jack (female)	N, jack (female)
Polarization	vertical	vertical
DC grounded	Yes	Yes

##### Connections

	Band 1	Band 2	Band 3	Band 4	Band 5
Port 1	X	X	X	X	X
Port 2	X	X	X	X	X

##### 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.

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### Mechanical Data

Dimensions (mm)	85 x 100 x 510 (Height x Width x Depth)
Weight (kg)	2.2

High-voltage-protection: no voltage on RF port, if the catenary line touches the antenna (EN 50124-1, 20 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	outdoor
Operation temperature (°C)	-40 to 85
Storage temperature (°C)	-40 to 85
Transport temperature (°C)	-40 to 85
IP rating	IP65, IP67
Solar radiation	DIN 75220
2011/65/EU (RoHS - including 2015/863 and 2017/2102)	compliant
Lead-free soldered	yes
REACH 1907/2006/EC	compliant

Environmental tests: EN 50155:2007

Flammability rating: BS 6853, 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-0000257682
Painting instruction	DOC-0000256180
Security instruction	DOC-0000278984
Outline drawing	DOU-00103284
3D-model	DOC-0000362727

### Additional Information

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

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