

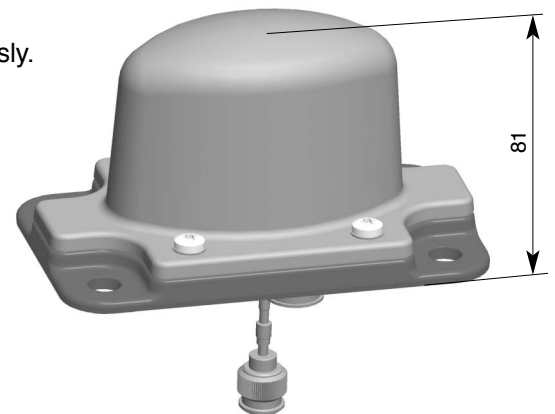
# Train Antenna

## 806 – 2700 MHz and GPS 1575 MHz

### 870 10003

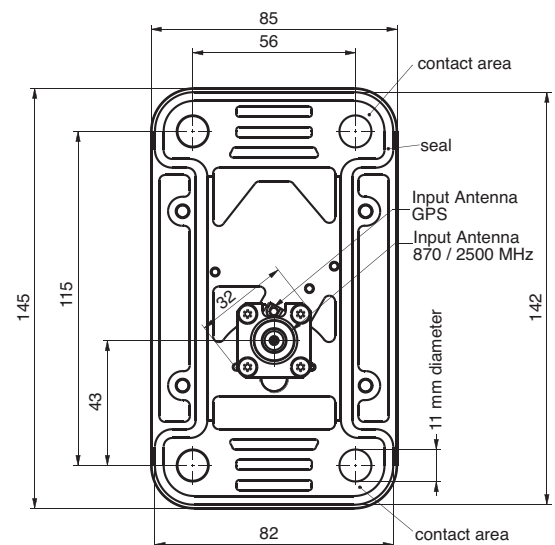
- Multi-band antenna: 800/900/1800/1900/UMTS/UMTS II/W-LAN and GPS.
- The antenna can be operated in all frequency ranges simultaneously.
- Low profile antenna in fiberglass radome.
- The antenna fulfils the requirements according to EN 50155.

Type No.	870 10003
<b>Antenna multi-band</b>	
Input	N female
Frequency range	806 – 2700 MHz
VSWR	806 – 870 MHz: < 2.0 870 – 2550 MHz: < 1.5 2550 – 2700 MHz: < 2.0
Gain	0 dB (ref. to the quarter-wave antenna)
Impedance	50 Ω
Polarization	Vertical
Max. power	100 W (at 50° C ambient temperature)
Inner conductor	D.C. grounded
<b>Antenna GPS</b>	
Input	Cable RG 316/U of 225 mm length with TNC male connector
Frequency range	1575.42 ±1 MHz
VSWR	< 1.5
Polarization	Right hand circular
Gain (90° elevation)	2 dB (ref. to the circularly polarized isotropic antenna)
Impedance	50 Ω
Inner conductor	D.C. grounded
Weight	approx. 0.5 kg
Packing size	152 x 91 x 125 mm
Height	81 mm



- Material:** Radiator: Copper and brass.  
Flange: Aluminum. Radome: Fiberglass.  
All screws and nuts: Stainless steel.  
Colour: Grey.
- Mounting:** On a conductive surface with a minimum size of 50 x 50 cm using 4 M10 bolts.
- Grounding and high voltage protection:** This antenna, tested by an independent institute and approved by the "Deutsche Bahn AG", is D.C. grounded to protect against lightning and high-tension lines.
- Accessories:** Low noise amplifier GPS 860 10069 (please order separately).
- Warning:** If the antenna is operated without the pre-amplifier type no. 860 10069, please note the following points.
- Due to the fact that the inner conductor of the antenna GPS is DC grounded, the input of the GPS receiver is loaded with a DC short circuit. If the GPS receiver provides a remote DC power supply, this could damage the GPS receiver.
  - At the input of the antenna GPS a level of –25 dB below the signal applied at the input of the antenna multi-band appears. Depending on the level of the signal applied at the input of the antenna multi-band, the GPS receiver may be overloaded or damaged.

Mounting flange:



Mounting hole for the connector: 33 mm (max. 35 mm)

**Note:** Mounting surface must be free from paint for electrical contact.

Evenness of opposite surface 0.2 mm.

Use a cap nut or hex-head screw plus the enclosed sealing washer.

