# **Train Antenna**

# **790 - 2700 MHz and GPS 1575 MHz 87010003**

Antennen • Electronic

• 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.



Mounting flange:

Accessories:

Low noise amplifier GPS 86010142 (please order separately).

Warning:

If the antenna is operated without the preamplifier type no. 86010142, 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.

Evenness of opposite surface 0.2 mm.

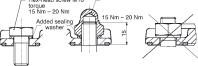
Use a cap nut or hex-head screw plus the enclosed sealing washer.

Cap nut

M10 DIN 1587

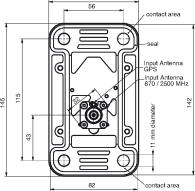
torque

Situation of mounting



|  |  |
| --- | --- |
| Type No. | 87010003 |
| **Antenna multi-band**  Input | N female |
| Frequency range | 790 - 2700 MHz |
| VSWR | 790 - 806 MHz: < 2.2 |
| Gain | 806 - 870 MHz: < 2.0  870 - 2550 MHz: < 1.5  2550 - 2700 MHz: < 2.0 0 dB  (ref. to the quarter-wave antenna) |
| Impedance | 50 Q |
| Polarization | Vertical |
| Max. power | 100 W (at 50° C ambient temperature) |
| Inner conductor | D.C. grounded |
| **Antenna GPS**  Input | Cable RG 316/U of 225 mm length |
| Frequency range | with TNC male connector 1575.42 ±1 MHz |
| VSWR | < 1.5 |
| Polarization | Right hand circular |
| Gain (90° elevation) | 2 dB (ref. to the circularly polarized |
| Impedance | isotropic antenna)  50 Q |
| Inner conductor | D.C. grounded |
| Weight | approx. 0.5 kg |
| Packing size | 152 x 91 x 125 mm |
| Height | 81 mm |

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

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

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 This antenna, tested by an independent institute

high voltage protection: and approved by the “Deutsche Bahn AG”, is

D.C. grounded to protect against lightning and high-tension lines.