

GPS-C TETRA-I

GPS Antenna with a $1/2 \lambda$ Groundplane Independent Whip with Shock Spring for the TETRA Band

DESCRIPTION

- GPS-antenna for fixed installations.
- Special mount for roof thickness 3.5-7.5 mm.
- Groundplane independent $1/2 \lambda$ antenna for mounting on nonconductive surfaces.
- Built-in high gain, low noise amplifier for GPS.
- DC supply via RF-connector.
- Black-chromed, conical stainless steel whip.

ORDERING DESIGNATIONS

TYPE	PRODUCT NO.
GPS-C TETRA-I	132000100



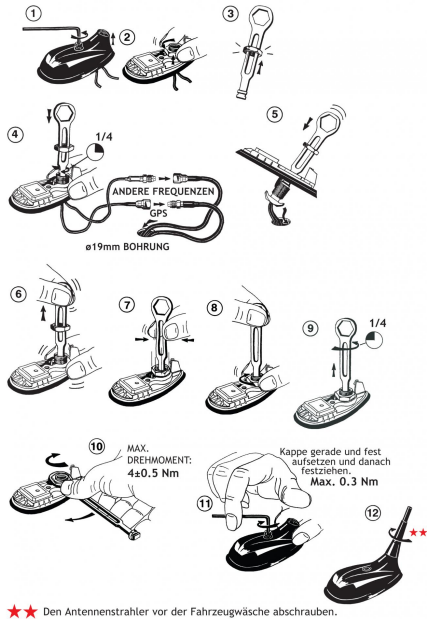
SPECIFICATIONS FOR WHIP

ELECTRICAL	
MODEL	GPS-C TETRA-I
ANTENNA TYPE	$1/2 \lambda$ mobile antenna
FREQUENCY	380 – 410 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	2 dB (acc. to EIA RS-329-1)
BANDWIDTH	≥ 20 MHz @ SWR 2.5
MECHANICAL	
MATERIALS	Whip: Black-chromed, conical stainless steel Black-chromed brass Spring: Black-chromed stainless steel
COLOUR	Black
HEIGHT	Approx. 350 mm
WEIGHT	Approx. 50 g
MOUNTING	On the GPS-Combi mount

SPECIFICATIONS FOR GPS-COMBI MOUNT

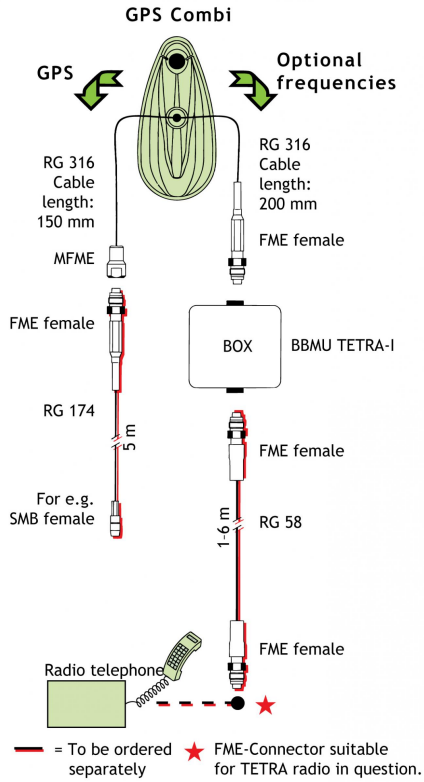
ELECTRICAL GENERAL SPECIFICATIONS	
MODEL	GPS-COMBI MOUNT
ANTENNA TYPE	Active patch antenna
FREQUENCY	1575 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular right-hand
COVERAGE	Hemispherical
GAIN	28 dBc in axial direction (typ.)
CROSS-POLARIZATION ATT.	> 10 dB (typ.)
BUILT-IN AMPLIFIER	
GAIN	> 30 dB (typ.)
NOISE FIGURE	< 1 dB (typ.)
P 1dB	Approx. +7 dBm
SELECTIVITY	> 45 dB down at ± 45 MHz
SWR (output)	≤ 2.0
SUPPLY VOLTAGE	5 ± 0.5 VDC (3 V resp. 12 V on request)
POWER CONSUMPTION	Approx. 25 mA
MECHANICAL (ONLY FOR THE GPS-PART)	
MATERIALS	Cu-nite brass Stainless steel Reinforced thermoplastic
ANTENNA COLOUR	Black
TEMP. RANGE	$-35^{\circ}\text{C} \rightarrow +75^{\circ}\text{C}$
CONNECTOR	FME (male for GPS) + (FME (female for mobile antenna)) FME (male) on output of BBMU filter
RECOMMENDED INSTALL. TORQUE	4 ± 0.5 Nm
DIMENSIONS(H x L)	Approx. 30 x 89 mm
ROOF THICKNESS	3.5 - 7.5 mm
WEIGHT	Approx. 114 g
MOUNTING	$\varnothing 19$ mm dia. hole Tools for mounting included

MOUNTING INSTRUCTIONS



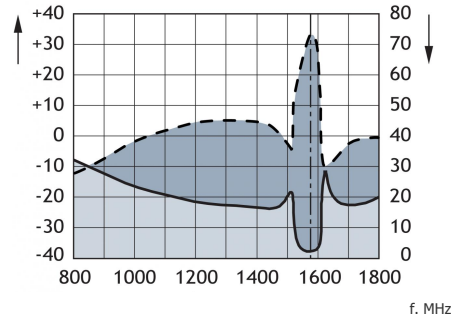
★ ★ Den Antennenstrahler vor der Fahrzeugwäsche abschrauben.

CABLE MOUNTING

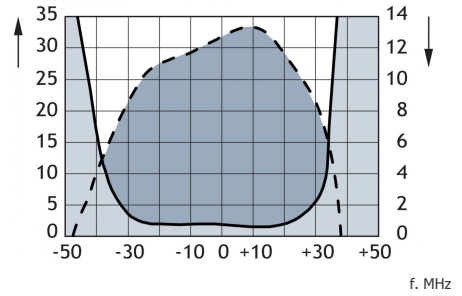


Do not use sealer on rubbergasket or other places.

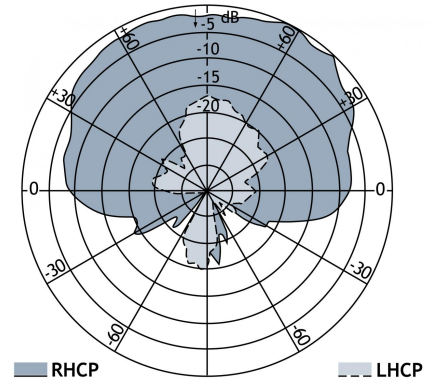
GAIN AND NOISE FIGURE (DB)



GAIN AND NOISE FIGURE AROUND GPS CENTER FREQUENCY (dB)



VERTICAL RADIATION PATTERN

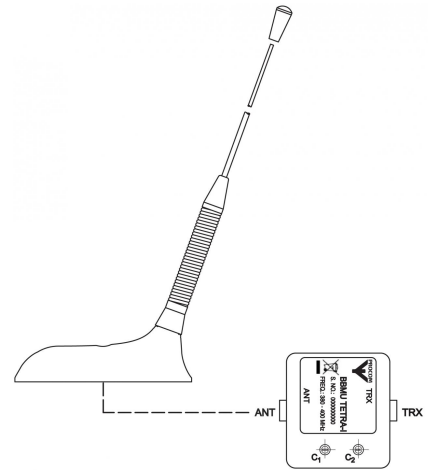


TUNING

SWR 3000 Analyzer with built-in signal generator and graphic display range of measurement 30-2700 MHz.



Tune the SWR in on the desired centre frequency and suitable spacing (for instance 30 MHz). Adjust C1 till the SWR curve emerges on the display. Adjust C2 till the best possible SWR minimum is reached on the required frequency. Fine-tune the SWR minimum and the bandwidth step by step by means of C1 and C2.



PROCOM A/S reserve the right to amend specifications without prior notice.

26/08/14