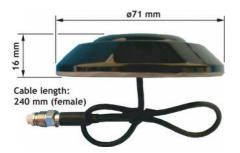
# GPS 2000 QM

# Active Receiving Antenna for the 1575 MHz NAVSTAR GPS Satellite Navigational System for Landmobile Use

DESCRIPTION

- Flat-pack GPS-antenna for fixed installations.
- Full hemispherical coverage.
- Built-in high gain, low noise amplifier.
- Right-Hand Circular Polarisation (RHCP).
- Available in black.
- 5 V supply voltage (3 V respectively 12 V available on request).
- DC supply via RF-connector.
- EMC tested to IEC 801 and IEC 255.
- Provided with FME (female) connector.
- Wide range of FME-accessories available.
- Double-adhesion procedure ensures fast and reliable fixing.





#### ORDERING DESIGNATIONS

ТҮРЕ	PRODUCT NO.
GPS 2000 QM	112000037

### SPECIFICATIONS

MODELGPS 2000 QMANTENNA TYPEActive patch antennaFREQUENCY1575 MHzIMPEDANCENom. 50 ΩPOLARIZATIONCircular right-handCOVERAGEHemisphericalGAIN (in axial direction)28 dBi (typ.)CROSS-POLARISATION ATT.> 10 dB (typ.)SELECTIVITY> 45 dB down at ± 45 MHzBUILT-IN AMPLIFIERGAIN> 30 dB (typ.)NOISE FIGURE≤ 1 dB (typ.)SWR (output)≤ 1 dB (typ.)SWR (output)≤ 10SUPPLY VOLTAGE\$ ± 0.5 VDC (3 v respectively 12 V available on request)ROUNTING10 mm dia. holeMOUNTING10 mm dia. holeMATERIALSSawater resistant (avanalCOLOURBackTEMP. RANGE-30° C ++70° CCONNECTORFME (female)HEIGHTApprox.16 mmWEIGHTApprox.90 g	ELECTRICAL GENERAL SPECIFICATIONS		
FREQUENCY     1575 MHz       IMPEDANCE     Nom. 50 Ω       POLARIZATION     Circular right-hand       COVERAGE     Hemispherical       GAIN (in axial direction)     28 dBi (typ.)       CROSS-POLARISATION ATT.     > 10 dB (typ.)       SELECTIVITY     > 45 dB down at ± 45 MHz <b>BUILT-IN AMPLIFIER</b> GAIN     > 30 dB (typ.)       NOISE FIGURE     ≤ 1 dB (typ.)       SWR (output)     ≤ 1 dB (typ.)       SVWR (output)     ≤ 1 dB (typ.)       CURRENT CONSUMPTION     ≤ 1 dB (typ.)       MOUNTING     Approx.20 mA       MATERIALS     Cu-nite brass Seawater resistant Lexan       COLOUR     Black       TEMP. RANGE     -30° C ++70° C       CONNECTOR     FME (female)       HEIGHT     Approx.16 mm       WIDTH/LENGTH     %71 mm	MODEL	GPS 2000 QM	
IMPEDANCENom. 50 ΩPOLARIZATIONCircular right-handCOVERAGEHemisphericalGAIN (in axial direction)28 dBi (typ.)CROSS-POLARISATION ATT.> 10 dB (typ.)SELECTIVITY> 45 dB down at ± 45 MHzBUILT-IN AMPLIFIERGAIN> 30 dB (typ.)NOISE FIGURE≤ 1 dB (typ.)SWR (output)≤ 2.0SWPLY VOLTAGE\$ ± 0.5 VDC (3 V respectively 12 V available on request)CURRENT CONSUMPTIONApprox. 20 mAMOUNTING10 mm dia. holeMATERIALSCu-nite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C ++70° CCONNECTORFME (female)HEIGHTApprox.16 mmWIDTH/LENGTHØ71 mm	ANTENNA TYPE	Active patch antenna	
NumericalPOLARIZATIONCircular right-handCOVERAGEHemisphericalGAIN (in axial direction)28 dBi (typ.)CROSS-POLARISATION ATT.> 10 dB (typ.)SELECTIVITY> 45 dB down at ± 45 MHzBUILT-IN AMPLIFIERGAIN> 30 dB (typ.)NOISE FIGURE≤ 1 dB (typ.)SWR (output)≤ 2.0SWR (output)≤ ± 0.5 VDC (3 V respectively 12 V available on request)CURRENT CONSUMPTIONApprox. 20 mAMCHANICALU-nite brass Seawater resistant LexanMOUNTING10 mm dia. holeMATERIALSCU-nite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C →+70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTHØ71 mm	FREQUENCY	1575 MHz	
COVERAGEHemisphericalCOVERAGEHemisphericalGAIN (in axial direction)28 dBi (typ.)CROSS-POLARISATION ATT.> 10 dB (typ.)SELECTIVITY> 45 dB down at ± 45 MHzBUILT-IN AMPLIFIERGAIN> 30 dB (typ.)NOISE FIGURE≤ 1 dB (typ.)SWR (output)≤ 2.0SWR (output)≤ ± 0.5 VDC (3 V respectively 12 V available on request)CURRENT CONSUMPTIONApprox. 20 mAMECHANICALUMOUNTING10 mm dia. holeMATERIALSCu-nite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C →+70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTHØ71 mm	IMPEDANCE	Nom. 50 Ω	
GAIN (in axial direction)28 dBi (typ.)CROSS-POLARISATION ATT.> 10 dB (typ.)SELECTIVITY> 45 dB down at ± 45 MHzBUILT-IN AMPLIFIERGAIN> 30 dB (typ.)NOISE FIGURE≤ 1 dB (typ.)SWR (output)≤ 2.0SWR (output)5 ± 0.5 VDC (3 V respectively 12 V available on request)CURRENT CONSUMPTIONApprox. 20 mAMOUNTING10 mm dia. holeMOUNTINGSu-anite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C ++70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTHØ71 mm	POLARIZATION	Circular right-hand	
CROSS-POLARISATION ATT.> 10 dB (typ.)SELECTIVITY> 45 dB down at ± 45 MHzBUILT-IN AMPLIFIERGAIN> 30 dB (typ.)NOISE FIGURE≤ 1 dB (typ.)SWR (output)≤ 2.0SUPPLY VOLTAGE5 ± 0.5 VDC (3 V respectively 12 V available on request)CURRENT CONSUMPTIONApprox. 20 mAMECHANICALUMOUNTING10 mm dia. holeMATERIALSCU-nite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C →+70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTHØ71 mm	COVERAGE	Hemispherical	
SELECTIVITY   > 45 dB down at ± 45 MHz     BUILT-IN AMPLIFIER     GAIN   > 30 dB (typ.)     NOISE FIGURE   ≤ 1 dB (typ.)     SWR (output)   ≤ 2.0     SUPPLY VOLTAGE   5 ± 0.5 VDC (3 V respectively 12 V available on request)     CURRENT CONSUMPTION   Approx. 20 mA     MCHANICAL   U     MOUNTING   10 mm dia. hole     MATERIALS   Cu-nite brass Seawater resistant Lexan     COLOUR   Black     TEMP. RANGE   -30° C →+70° C     CONNECTOR   FME (female)     HEIGHT   Approx.16 mm     WIDTH/LENGTH   Ø71 mm	GAIN (in axial direction)	28 dBi (typ.)	
BUILT-IN AMPLIFIERGAIN> 30 dB (typ.)NOISE FIGURE $\leq 1$ dB (typ.)SWR (output) $\leq 2.0$ SUPPLY VOLTAGE $5 \pm 0.5$ VDC (3 V respectively 12 V available on request)CURRENT CONSUMPTIONApprox. 20 mAMECHANICALUMOUNTING10 mm dia. holeMATERIALSCu-nite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C $\rightarrow$ 70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTH $\emptyset71$ mm	CROSS-POLARISATION ATT.	> 10 dB (typ.)	
GAIN> 30 dB (typ.)NOISE FIGURE≤ 1 dB (typ.)SWR (output)≤ 2.0SUPPLY VOLTAGE\$± 0.5 VDC (3 V respectively 12 V available on request)CURRENT CONSUMPTIONApprox. 20 mAMECHANICALUMOUNTING10 mm dia. holeMATERIALSCu-nite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C →+70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTH\$71 mm	SELECTIVITY	> 45 dB down at ± 45 MHz	
NOISE FIGURE $\leq 1 dB$ (typ.)SWR (output) $\leq 2.0$ SUPPLY VOLTAGE $5 \pm 0.5$ VDC (3 V respectively 12 V available on request)CURRENT CONSUMPTIONApprox. 20 mAMECHANICAL10 mm dia. holeMOUNTING10 mm dia. holeMATERIALSCU-nite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C $\rightarrow$ +70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTH $\emptyset71$ mm	BUILT-IN AMPLIFIER		
SWR (output) $\leq 2.0$ SUPPLY VOLTAGE $3 \pm 0.5$ VDC (3 V respectively 12 V available on request)CURRENT CONSUMPTIONApprox. 20 mAMECHANICALI0 mm dia. holeMOUNTING10 mm dia. holeMATERIALSCu-nite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C ++70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTH $\emptyset71$ mm	GAIN	> 30 dB (typ.)	
SUPPLY VOLTAGE5 ± 0.5 VDC (3 V respectively 12 V available on request)CURRENT CONSUMPTIONApprox. 20 mAMECHANICALUMOUNTING10 mm dia. holeMATERIALSCu-nite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C →+70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTHØ71 mm	NOISE FIGURE	$\leq$ 1 dB (typ.)	
(3 V respectively 12 V available on request)CURRENT CONSUMPTIONApprox. 20 mAMECHANICALImm dia. holeMOUNTING10 mm dia. holeMATERIALSCu-nite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C →+70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTHØ71 mm	SWR (output)	≤ 2.0	
MECHANICAL     MOUNTING   10 mm dia. hole     MATERIALS   Cu-nite brass Seawater resistant Lexan     COLOUR   Black     TEMP. RANGE   -30° C →+70° C     CONNECTOR   FME (female)     HEIGHT   Approx. 16 mm     WIDTH/LENGTH   Ø71 mm	SUPPLY VOLTAGE		
MOUNTING10 mm dia. holeMATERIALSCu-nite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C →+70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTHØ71 mm	CURRENT CONSUMPTION	Approx. 20 mA	
MATERIALSCu-nite brass Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C →+70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTHØ71 mm	MECHANICAL		
Seawater resistant LexanCOLOURBlackTEMP. RANGE-30° C →+70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTHØ71 mm	MOUNTING	10 mm dia. hole	
TEMP. RANGE-30° C →+70° CCONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTHØ71 mm	MATERIALS	Seawater resistant	
CONNECTORFME (female)HEIGHTApprox. 16 mmWIDTH/LENGTHØ71 mm	COLOUR	Black	
HEIGHT Approx. 16 mm   WIDTH/LENGTH Ø71 mm	TEMP. RANGE	-30° C →+70° C	
WIDTH/LENGTH Ø71 mm	CONNECTOR	FME (female)	
•	HEIGHT	Approx. 16 mm	
WEIGHT Approx. 90 g	WIDTH/LENGTH	ø71 mm	
	WEIGHT	Approx. 90 g	

## FME-SYSTEM ACCESSORIES

FME-CABLES	
TYPE	PRODUCT NO.
1 m FME	130000437
2 m FME	130000447
3 m FME	130000457
4 m FME	130000466
5 m FME	130000474
6 m FME	130000483
4 m FME-white	110000064
6 m FME-white	110000066
12 m FME-white	110000068
18 m FME-white	110000069

For further information about other types of FME-cables and FMEconnectors, please compare the cable and connector data sheets under accessories.

FME-CONNECTOR	RS
TYPE	PRODUCT NO.
FME-FME	130000583
FME-P (Prolongation)	130000565
FME-N	130000571
FME-FSMA (Female-SMA)	130000578
FME-BNC	130000566
FME-TNC	130000569
FME-UHF	130000572
FME-MUHF (Mini-UHF)	130000573
FME-EMUHF (Elbow-MUHF)	130000582
FME-EBNC (Elbow-BNC)	130000580
FME-ETNC (Elbow-TNC)	130000581
FME-SMA	130000577



#### INSTALLATION

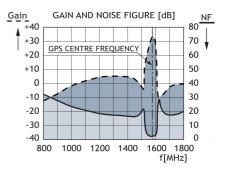
### 1. BEFORE INSTALLATION

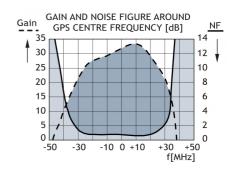
- Environmental and car temperature must be above  $15^{\rm o}\,{\rm C}$  at installation, and installation surface must be dry and clean.
- 2. INSTALLATION



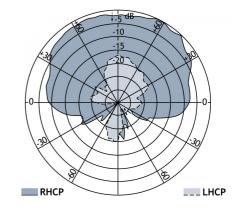
- 3. ADHESION ADVICE
  - It is essential for a good adhesion result that the surface is properly cleaned and dry.
  - A high application pressure improves the binding power.
  - Ideal application temperature range is +20° C to +38° C but may be extended down to +15° C. When applied binding strength is maintained between -30° C and +70° C.

Do not use sealer on rubber gasket or other places.





### VERTICAL RADIATION PATTERN





PROCOM France S.A.R.L. se réserve le droit d'améliorer les spécifications sans préavis. 17/12/14

