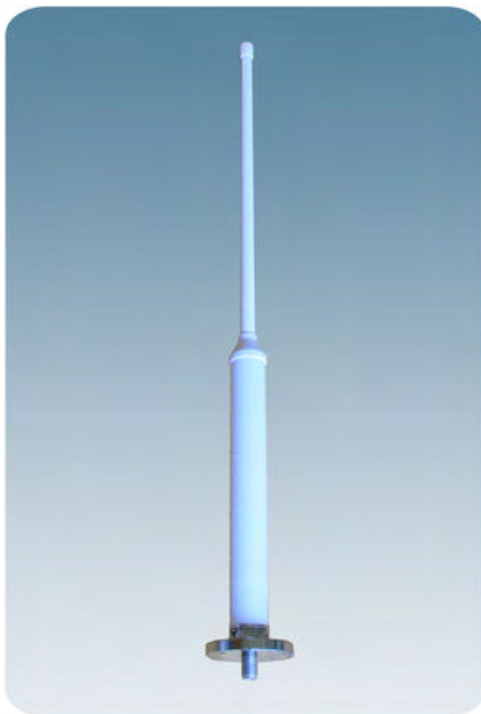


MA 70/GPS 4/...

Dual Band Antenna for the UHF Band and GPS

DESCRIPTION

- This active antenna has been designed for use on the UHF band e.g. TETRA, CDMA, ICE, and GPS.
- The antenna consists of a high-performance glass fibre-encapsulated antenna element and an active GPS antenna. The latter is built into the bottom part of the antenna together with a diplex filter. Only one down lead cable is therefore necessary.
- The antenna element is a $1/2 \lambda$ antenna for the UHF band frequency range within 380 - 467 MHz.
- The GPS antenna has a full hemispherical coverage and a built-in high-gain, low-noise amplifier.
- The necessary supply voltage (5 V DC) for the amplifier is delivered through the down lead coaxial cable. Up to 30 m of RG 214/U coaxial cable can be used between the antenna and the receiver/transceiver.
- By careful choice of materials, the MA 70/GPS 4/... is designed to withstand the roughest of climate conditions, ensuring many years of trouble-free service.



Standard Mounting Kit included.

ORDERING DESIGNATIONS

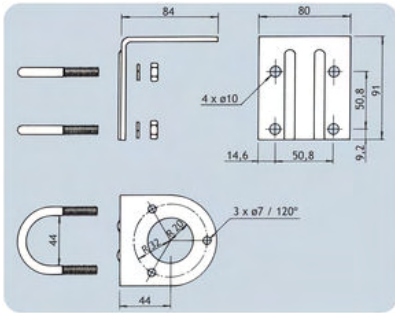
TYPE NO.	PRODUCT NO.	FREQUENCY
MA 70/GPS 4/TETRA-I	110000200	380 - 400 MHz
MA 70/GPS 4/TETRA-h	110000201	410 - 430 MHz
MA 70/GPS 4/CDMA	110000202	453 - 467 MHz
MA 70/GPS 4/ice.net	110000223	453 - 467 MHz
MA 70/GPS 4/NET 1	110000224	453 - 467 MHz
DM Mounting Kit	112000001	
SM-MAS	110000196	
DIPX 1000/1550-DC-H	200000749	
PRO-DIPX 1000/1550-DC-H HP	200001998	

SPECIFICATIONS

ELECTRICAL UHF	
MODEL	MA 70/GPS 4/...
ANTENNA TYPE	$1/2 \lambda$ antenna element
FREQUENCY	Models within 380 - 467 MHz
BANDWIDTH	5 % of freq. @ SWR \leq 1.5
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Vertical
GAIN	Approx. 2 dBi 0 dBd
SWR	Typ. < 2.0
MAX. POWER	25 W
ELECTRICAL GPS	
ANTENNA TYPE	Quadrifilar Helix Active antenna
FREQUENCY	1575 MHz
IMPEDANCE	Nom. 50 Ω
POLARIZATION	Circular right-hand
COVERAGE	Hemispherical
GAIN (in axial direction)	> 32 dBi
CROSS POLARIZATION ATT	> 10 dB (typ.)
Built-in Amplifier	
GAIN	> 30 dB (typ.)
NOISE FIGURE	< 3 dB (typ.)
P _{1 dB}	Approx. +10 dBm
SWR (output)	\leq 2.0
SUPPLY VOLTAGE	5 \pm 0.5 V DC (3 V and 12 V respectively available on request)
SELECTIVITY	> 20 dB down @ \pm 100 MHz
CURRENT CONSUMPTION	Approx. 44 mA
MECHANICAL (for the MA 70/GPS 4/...)	
TEMP. RANGE	-30° C \rightarrow + 70° C
CONNECTOR	N-female
WIND SURFACE	Approx. 0.018 m ²
WIND LOAD	Approx. 23 N @ 160 km/h
COLOUR	Marine white
MATERIALS	Shroud : Polyurethane-coated glass fibre Flange : Chromed brass
TOTAL HEIGHT	Approx. 730 mm
WEIGHT	Approx. 900 g
MOUNTING	Standard mounting on plane surface. Deck mounting by means of DM Mounting Kit (optional extra). Mounting on 30-44 mm mast tube by means of SM-MAS (optional extra)

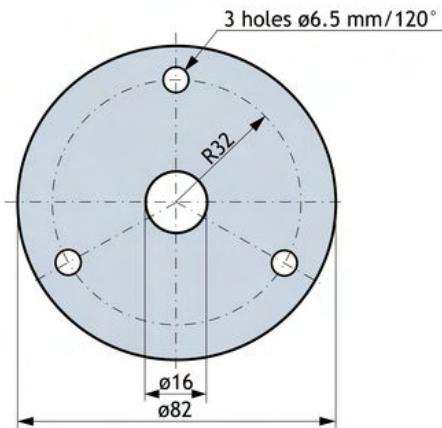


DM Mounting Kit for Deck Mount to be ordered separately.

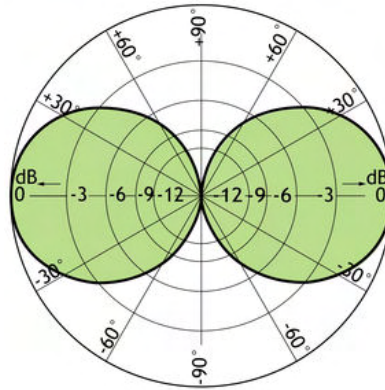


SM-MAS Mounting Kit for Side Mount and Mast Mount to be ordered separately.

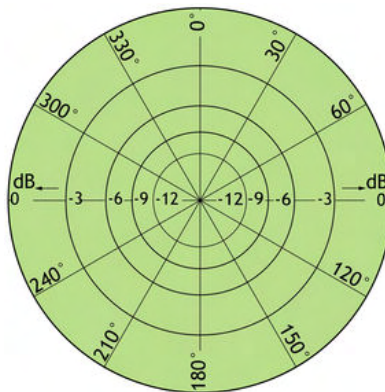
MOUNTING ON FLAT SURFACES



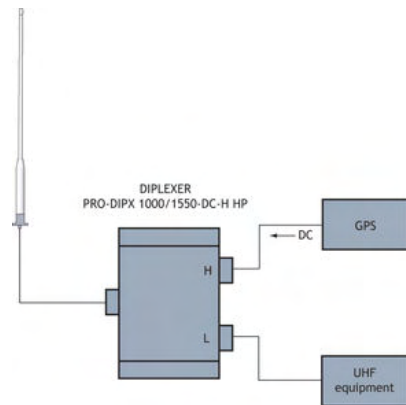
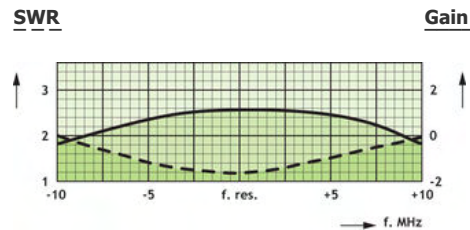
**RADIATION PATTERN FOR THE UHF BAND:
TYPICAL RADIATION PATTERN (E-PLANE)**



TYPICAL RADIATION PATTERN (H-PLANE)

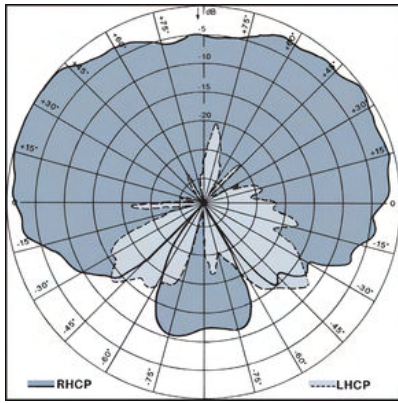


TYPICAL GAIN AND SWR CURVE FOR THE UHF BAND

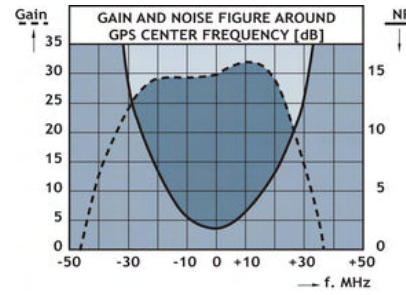
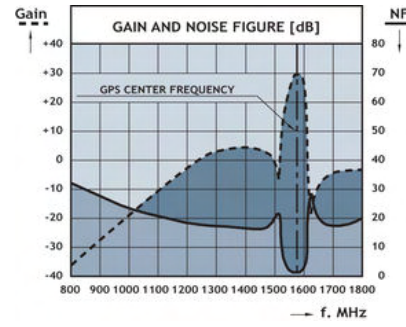


Alternatively, filter type DIPLEXER
DIPX 1000/1550/DC-H can be used.
Either filter to be ordered separately.

VERTICAL RADIATION PATTERN



TYPICAL RESPONSE CURVES AND RADIATION PATTERN FOR THE GPS-PART (1575 MHz)



PROCOM A/S reserve the right to amend specifications without prior notice.
19/11/2010