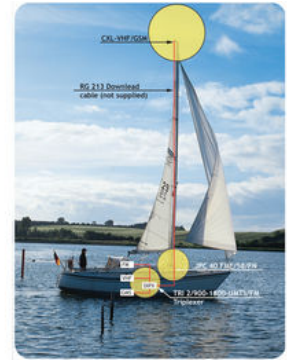


# MARCELL +3

2-Band Marine Antenna System Covering Maritime VHF and 900 MHz Cellular (GSM/NMT-900)

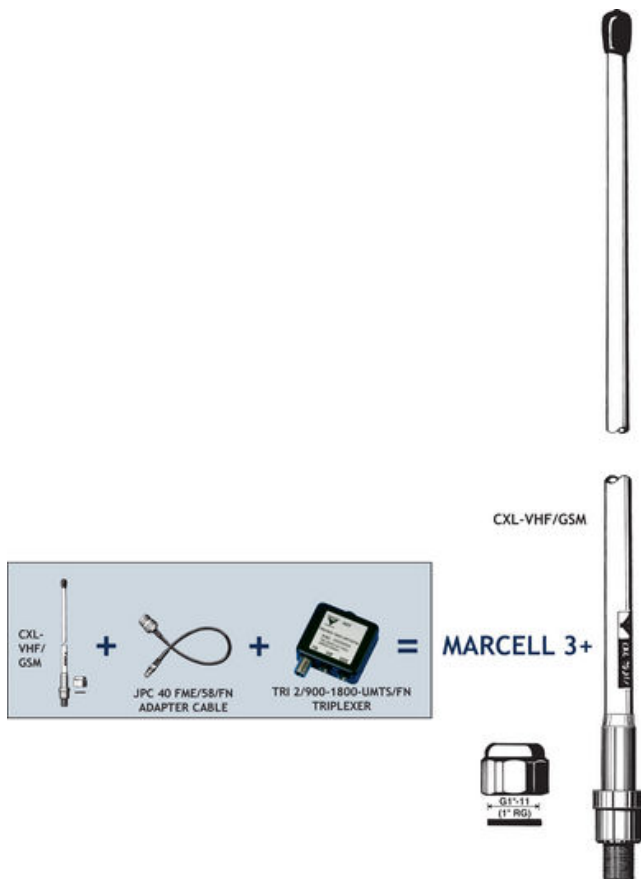
## DESCRIPTION

- Complete package for FM-Radio, maritime VHF and 900 MHz cellular
  - all you need extra is a download cable.
- The system comprises:
  - CXL-VHF/GSM dual-frequency antenna,
  - TRI 2/900-1800-UMTS/FM splitting filter to connect the FM-Radio marine VHF radio and a mobile telephone to one antenna,
  - JPC 40 FME/58/FN jumper cable.
- One antenna – three bands:
  - Covers FM-Radio (87.5 – 108 MHz), maritime VHF (155 – 162 MHz) and 900 MHz cellular (890 – 960 MHz),
  - 0 dBd on maritime VHF (155 – 162 MHz) and EGSM (880 - 960 MHz),
    - Exploits the mast head space optimally.
  - Eliminates interference problems between two closely mounted antennas.
  - Only one download cable necessary.
- The antenna is mounted using the 1" revolving nut system and easily replaces the existing antenna – the download cable may be reused.
- Mount the antenna as high as possible and unobstructed by metal objects.
- Wide range of accessory mounting brackets available (see next page).



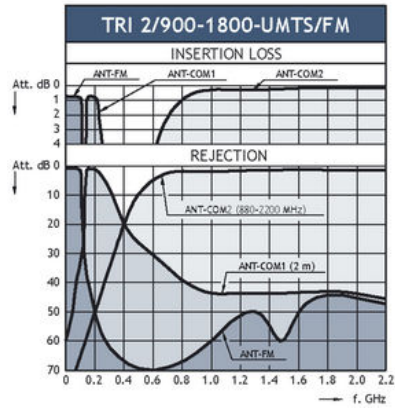
## SPECIFICATIONS

ELETRICAL	
MODEL	MARCELL 3+
ANTENNA TYPE	Triple-band marine antenna
ANTENNA FREQUENCY	FM Radio: 87.5 - 108 MHz Maritime VHF: 155 – 162 MHz EGSM: 890 – 960 MHz
FILTER FREQUENCY	VHF Radio: 144 - 175 MHz (COM1) Mobile telephone: 880 – 2200 MHz (COM2) Car radio: 0 – 108 MHz (RADIO)
IMPEDANCE	Nom. 50 Ω
RADIATION	Omnidirectional
POLARISATION	Vertical
ANTENNA GAIN	2 dBi 0 dBd on both VHF and EGSM
ANTENNA SWR	TX: ≤ 1.5 RX: ≤ 2.5
FILTER INSERTION LOSS	0 – 108 MHz: ≤ 1.0 dB 144 – 175 MHz: ≤ 0.8 dB 880 MHz - 2.2 GHz: ≤ 0.7 dB
FILTER ISOLATION	COM1 to COM2: ≥ 40 dB COM1 to car radio: ≥ 35 dB COM2 to car radio: ≥ 45 dB
MAX. POWER	35 W on each filter port 10 W on 880 - 2200 MHz filter port (100 W for the antenna)
ANTISTATIC PROTECTION	All metal parts of the antenna are DC-grounded (shows a DC-short at the connector)
MECHANICAL	
TEMP. RANGE	-30°C → +70°C
CONNECTOR	Antenna: N-female Filter: COM1, COM2, Antenna: FME Car radio: CRC-connector (M10 x 0.75) Jumper cable: FME-female and N-female
ADAPTOR CABLE	40 cm RG 58
DOWNLOAD CABLE	Not supplied. Min. RG 213 recommended.
WIND SURFACE	Approx. 0.013 m <sup>2</sup>
WIND LOAD	Approx. 15 N @ 150 km/h
COLOUR	Marine white
ANTENNA MATERIALS	Shroud: Polyurethane coated glass fibre Mounting bracket: Chromed brass
ANTENNA HEIGHT	Approx. 1.1 m
DIA. IN TOP END	8 mm
DIA. IN BOTTOM END	16 mm
FILTER DIMENSIONS (W x H x D)	50 x 21 x 50 mm
ANTENNA WEIGHT	Approx. 400 g
MOUNTING	On 1" RG (G1"-11) threaded pipe or on optional mounting brackets (see below).

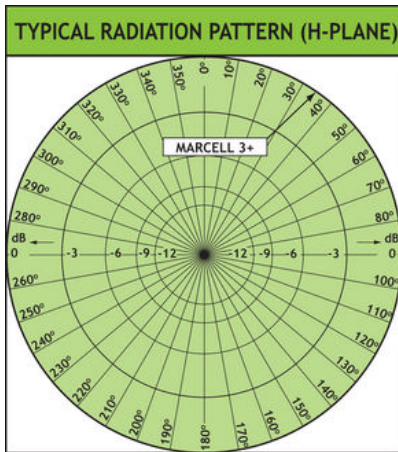
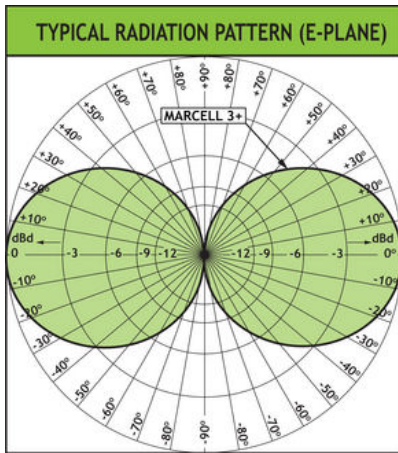


- Option 1: Existing car radio cable  
 Option 2: PROCOM 1 m CRC or PROCOM 5 m CRC (110 Ω car radio cable)

## FILTER RESPONSE



## TYPICAL RADIATION PATTERN



## FME-SYSTEM ACCESSORIES

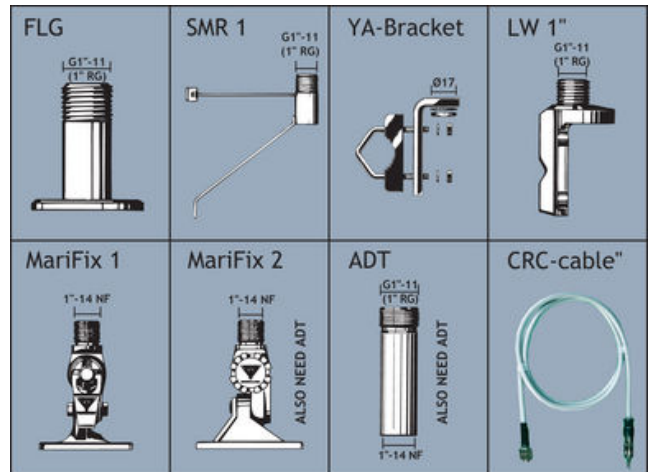
FME-CABLES	
LENGTH	TYPE NO.
1 m	1 m FME
2 m	2 m FME
3 m	3 m FME
4 m	4 m FME
5 m	5 m FME
6 m	6 m FME
4 m white	4 m FME-white
6 m white	6 m FME-white
12 m white	12 m FME-white
18 m white	18 m FME-white

FME-CONNECTORS	
CONNECTOR	ORDER NO.
FME-FME	FME-FME
Prolongation	FMEP
N	FME-N
FSMA	FME-FSMA
BNC	FME-BNC
TNC	FME.TNC
UHF	FME-UHF
Mini-UHF	FME-MUHF
Elbow-MUHF	FME-EMUHF
Elbow-BNC	FME-EBNC
Elbow-TNC	FME-ETNC
SMA	FME-SMA

For further information about other types of FME-cables please compare the cable data sheets under accessories in our catalogue.

## MOUNTING ACCESSORIES

(To be ordered separately)



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

16/01/2009