

# MARCELL 3+

3-Band Marine Antenna System Covering  
FM-Radio, Maritime VHF and 900 MHz Cellular  
(EGSM/NMT-900)

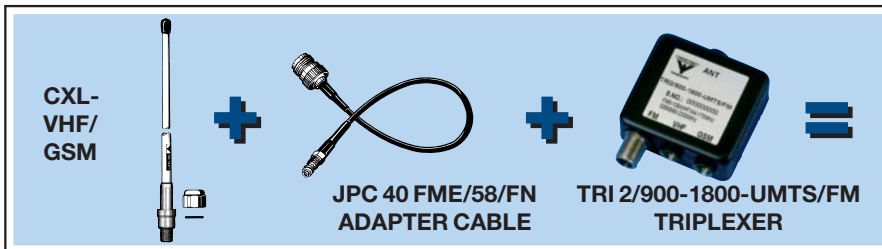


## DESCRIPTION:

- ★ Complete package for FM-Radio, maritime VHF and 900 MHz cellular – all you need extra is a downlead 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 downlead cable necessary.
- ★ The antenna is mounted using the 1" revolving nut system and easily replaces the existing antenna – the downlead 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).



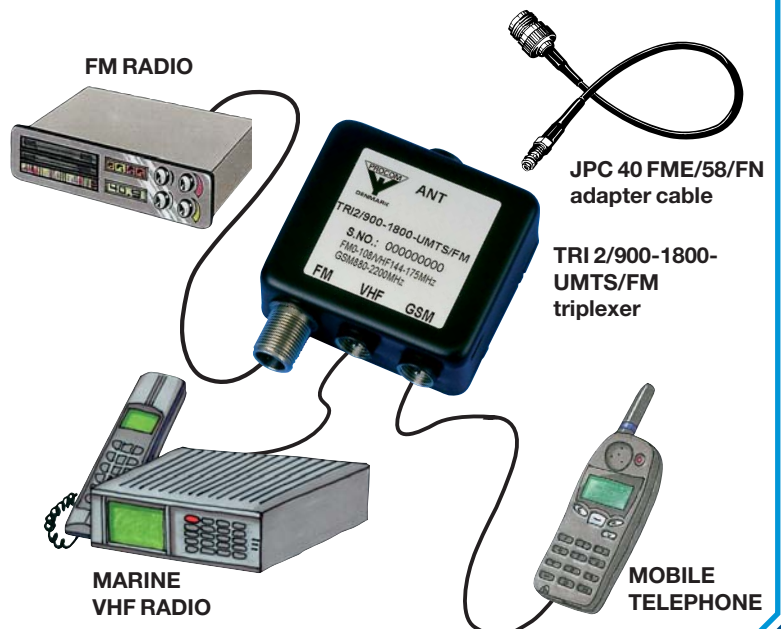
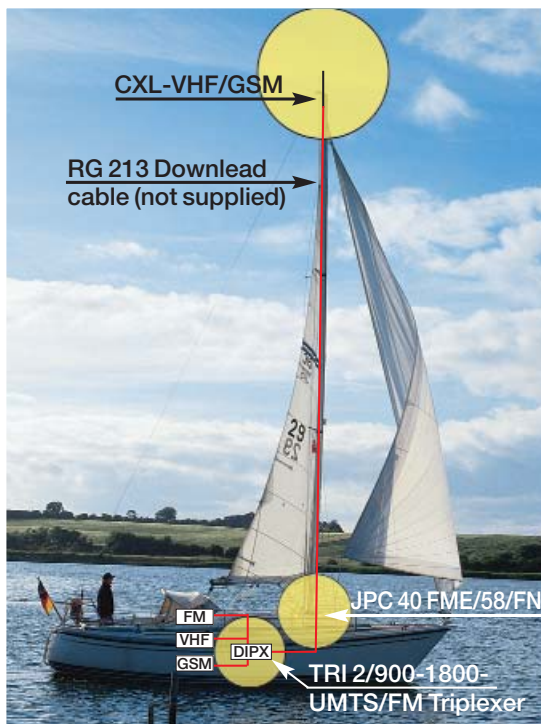
CXL-VHF/GSM



**MARCELL 3+**



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



# MARCELL 3+

## Specifications



### SPECIFICATIONS:

ELECTRICAL	
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 watt on each filter port 10 watt on 880-2200 MHz filter port (100 watt for the antenna)
ANTISTATIC	All metal parts of the antenna are DC-grounded (shows a DC-short at the connector)

MECHANICAL	
TEMP. RANGE	-30° C → +70° C
CONNECTORS	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
DOWNLEAD CABLE	Not supplied. Min. RG 213 recommended.
WIND SURFACE	Approx. 0.013 m <sup>2</sup>
WIND LOAD	Approx. 15 N (at 150 km/h)
COLOUR	Marine white
ANTENNA MATERIALS	Shroud: Polyurethane coated fiberglass 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).

### FME-SYSTEM ACCESSORIES FME-CABLES

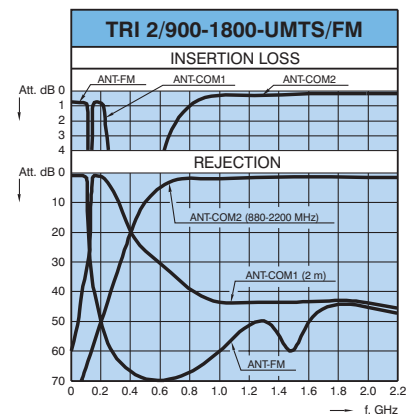
LENGTH	TYPE NO.
1m	1m FME
2m	2m FME
3m	3m FME
4m	4m FME
5m	5m FME
6m	6m FME
4m white	4m FME-white
6m white	6m FME-white
12m white	12m FME-white
18m white	18m FME-white

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

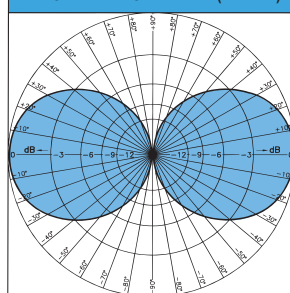
### FME-SYSTEM ACCESSORIES FME-CONNECTORS

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

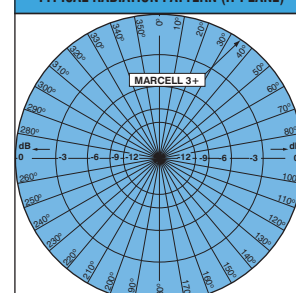
### FILTER RESPONSE:



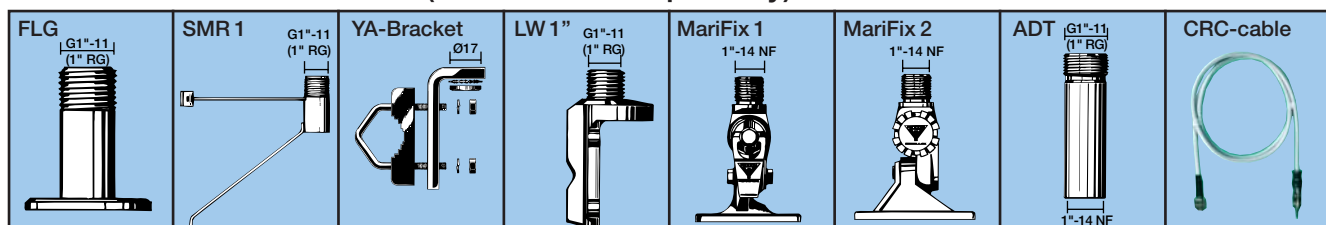
TYPICAL RADIATION PATTERN (E-PLANE)



TYPICAL RADIATION PATTERN (H-PLANE)



### MOUNTING ACCESSORIES: (to be ordered separately)



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