

**SPECIFICATIONS OF INMARSAT-C MES  
FELCOM 18**

**1 GENERAL**

1.1	Transmitting frequency	1626.5 to 1646.5 MHz
1.2	Receiving frequency	1537.0 to 1544.2 MHz
1.3	Channel interval	5 kHz
1.4	G/T	Better than -23 dB/K (elevation angle 5°)
1.5	EIRP	12 to 16 dBW (elevation angle 5°)
1.6	Modulation	BPSK
1.7	Modulation rate	600/1200 sps
1.8	Coding	Convolution with coding rate 1/2 and constraint length 7
1.9	Decoding	Viterbi decoder
1.10	EGC receiver	Built in (EGC: Enhanced Group Call)
1.11	LRIT function	Standard

**2 ANTENNA UNIT**

2.1	Antenna type	Daisy loop antenna
2.2	Receiving gain	33 to 40 dB
2.3	Receiving NF	1.7 dB or less
2.4	Transmitting gain	28.5 to 42.5 dB
2.5	Polarization	Right-hand circular polarization
2.6	Axial ratio	Within 6 dB (5° to 90°)
2.7	VSWR	2.0 or less (50 ohm)

**3 TERMINAL UNIT**

3.1	Display	10.4" color TFT LCD, 800 x 600 dots (SVGA)
3.2	Brilliance	11 steps
3.3	Visible distance	0.7 m nominal

**4 INTERFACE**

4.1	Number of port	
	Serial	I/O: 1 ch, Input: 1 ch, IEC61162-1
	Alarm (output)	1 ch, Contact closure, Normal close
	SSAS I/O	1 ch, RS-485, 1200 bps
	LAN	1 port, Ethernet 100Base-TX, RJ45 connector
	USB	1 port for keyboard, USB2.0
4.2	Data sentences	
	Serial	IEC61162-1 Ed.3/4
	Input	BWC, BWR, DBT, DTM, GGA, GLL, GNS, GSA, MTW, RMA, RMB, RMC, VDO, VDR, VTG, WPL, ZDA

- Ethernet IEC61162-450, IEC61162-1 Ed.5
- Input ACK, ACN
- Output ALC, ALF, ALR, ARC, HBT, SM1/2/3/4, SMB
- Output proprietary sentences
  - PFEC rminf, rmalr
- 4.3 IEC61162-450 transmission group
  - Input Arbitrary (default: MISC)
  - Output RCOM
- 4.4 Other network functions (except IEC61162-450)
  - DHCP, AutoIP, SMTP, POP3, PC terminal connect Protocol, Furuno Management Protocol (FMP)

**5 POWER SOURCE**

- 5.1 Terminal unit 12-24 VDC: 8.0-4.0 A (Transmitting), 1.0-0.5 A (Receiving)
- 5.2 Printer (PP-520, option) 24VDC: 1 A max.
- 5.3 AC/DC power supply unit (option)
  - PR-240 100-115/200-230 VAC, 1 phase, 50/60 Hz, 24 VDC from battery

**6 ENVIRONMENTAL CONDITION**

- 6.1 Ambient temperature
  - Antenna unit -35°C to +55°C (storage: -35°C to +70°C)
  - Other indoor units -15°C to +55°C

Note: Antenna unit is categorized as an outdoor installation equipment and other units are for indoor installation.
- 6.2 Relative humidity 95% or less at +40°C
- 6.3 Degree of protection
  - Antenna unit IP56
  - Terminal unit IP20 (IP22: option)
  - Distress alert/received call unit/ SSAS alert unit
    - IP20 (IP22: option, bulkhead mount)
  - Alarm unit IP22
  - Junction box IP20 (IP22: option, tabletop mount)
  - Printer/ Keyboard IPX0
- 6.4 Vibration IEC 60945 Ed.4

**7 UNIT COLOR**

- 7.1 Antenna unit Upper: N9.5, Lower: 2.5PB3.5/10
- 7.2 Terminal unit/Junction box N2.5
- 7.3 Others 2.5GY5/1.5