

CORTEX M1 AIS WITH MONITORING

CORTEX-M1

DESCRIPTION

Class B SOTDMA with smartAIS send and receive and integrated no-loss splitter. Monitor and control onboard systems and keep alerted on board or ashore from your smartphone.

- Add H1 Tethered & H1P Portable handset for VHF capability
- Built-in Class B SOTDMA
- Built-in antennas for WiFi and cloud connectivity for monitoring on board and ashore
- Transmit AIS and VHF simultaneously
- Universal compatibility
- Low power consumption
- Galvanically isolated ports
- Monitor up to 5 external sensors connected directly
- Connect to NMEA 2000 to monitor network sensors remotely
- Integrated no-loss AIS / VHF splitter
- IPx7 full plastic housing
- 10Hz GPS and external antenna port
- GNSS: GPS, GLONASS, Bei Dou, Galileo
- Anti jamming feature



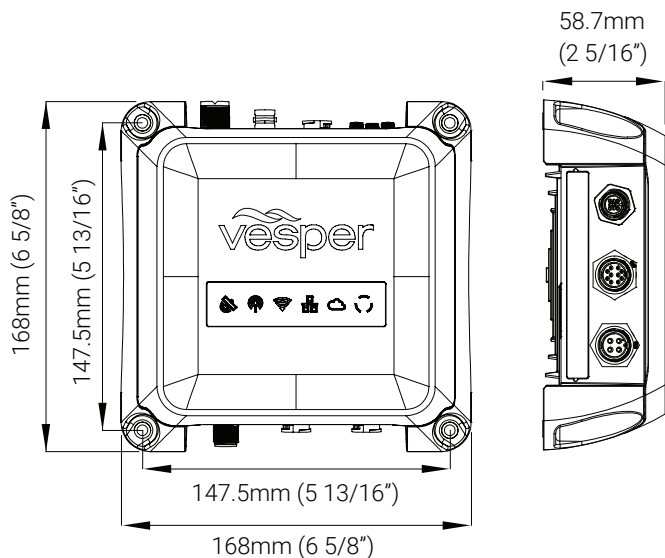
CORTEX M1 AIS	
PRODUCT CODE	CORTEX- M1
UPC	0793591743578
DESCRIPTION	SOTDMA <i>smart</i> AIS transponder with remote vessel monitoring
INCLUDED	M1 Hub, GPS Antenna, Power Cable, Audio Cable, External Sensors Cable, External WiFi Antenna, VHF patch cable
PACKAGING	330 x 218 x 148mm (1' 1" x 8 9/16" x 5 13/16") 1.64 kg (3.61 lb)

INCLUDED

ACCESSORY CODE	DESCRIPTION
PTC-VHF	M1 PATCH CABLE (BNC TO PL259 FOR SPLITTER)
PTC-GPS	GPS LOW LOSS PATCH CABLE, 10M (32' 9 11/16")



- 1 VHF Antenna In
- 2 VHF Antenna Out (no-loss splitter)
- 3 DC Power (12/24V)
- 4 GPS/GNSS, WiFi and Cloud antenna ports
- 5 Mounting holes
- 6 External Speaker output
- 7 General Purpose Input / Output, NMEA 0183
- 8 NMEA 2000 port
- 9 Coloured backlit status indicators for GPS/GNSS, VHF/AIS, WiFi, NMEA 2000, Cloud and Power



SPECIFICATIONS

CORTEX HUB		
GENERAL SPECIFICATIONS		
HUB SIZE	168 x 168 x 58.7mm (6 5/8" x 6 5/8" x 2 5/16")	
POWER SUPPLY	9-33V. 12V: 6A max, 500mA nom	
WEIGHT	770g (1.7lb)	
ENVIRONMENTAL	Waterproof (IPx7)	
OPERATING TEMPERATURE	-25°C to +55°C (-13°F to +131°F)	
SUPPORTED PROTOCOLS	AIS Class B SOTDMA, VHF Voice, Class D DSC, ATIS (user configurable, EU region) NOAA Weather (US region)	
TRANSMITTER FREQUENCY ERROR	Less than 300Hz	
ANT CONNECTOR	SO239	
SPLITTER	Max input power 25W, Insertion Loss RX 0dB, TX < 1dB	
SPLITTER CONNECTOR	BNC	
VHF VOICE		
VHF FREQUENCY RANGE	TX	156.025–161.600 MHz
	RX	156.050–163.275 MHz
DEDICATED RX CHANNELS	3	
POWER OUTPUT	25W, 1W (High, Low)	
REGIONS	USA, CAN, INT	
DSC SENSITIVITY (12 DB SINAD)	-116 dBm	
ADJACENT CHANNEL SELECTIVITY	80 dB	
SPURIOUS RESPONSE	70 dB	
INTERMODULATION	70 dB	
SPURIOUS EMISSIONS	Less than -80 dBc (at 25 W)	
MAX AUDIO OUTPUT POWER	10W, < 1% THD	

CLASS D DSC	
DEDICATED RX CHANNELS	1
SENSITIVITY (1% BER)	-113 dBm
ADJACENT CHANNEL SELECTIVITY	80 dB
SPURIOUS RESPONSE	70 dB
INTERMODULATION	70 dB
SOTDMA CLASS B AIS	
DEDICATED RX CHANNELS	2
FREQUENCY RANGE	156.025 – 162.025 MHz
POWER OUTPUT	5W, 1W (High, Low)
AIS SENSITIVITY (20% PER)	-112 dBm
ADJACENT CHANNEL SELECTIVITY	80 dB
SPURIOUS RESPONSE	70 dB
INTER-MODULATION	65 dB
AUDIO	
SUPPORTED FUNCTIONS	VHF RX, Alarms
AMPLIFIER	10W Class D, THD < 1%
SPEAKER	4 ohm
GNSS	
SENSITIVITY	-167dBm
CONSTELLATIONS	GPS, GLONASS, Bei Dou, Galileo
CHANNELS	72
DIFFERENTIAL SUPPORT	SBAS, WAAS, EGNOS
NAVIGATION RATE	10Hz
CONNECTOR	SMA
CERTIFICATIONS	IEC 61108
FEATURES	Anti-jamming, Anti-spoofing
NETWORKING	
NMEA 2000 GATEWAY	1 x Isolated Micro-C male port, AIS, GPS & MOB PGN output, Gateway Translations to/from NMEA 0183
NMEA 0183	1 x Isolated NMEA 0183 port, AIS and GPS sentences, Gateway Translations to/from NMEA 2000, 4800 / 38400 baud
WIRELESS	Access Point for up to 10 devices, 2.4GHz, 802.11b/g/n, Integrated Antenna, SMA-RP external antenna port (optional)
WIRELESS SECURITY	WPA2 Personal
CLOUD CONNECTIVITY	LTE-Cat1 with 3G fallback (USA), 3G (Canada, EU, Asia), Integrated SIM, Integrated Antenna, SMA-RP external antenna port (optional)
CONTROL OUTPUTS	2 Outputs, Low side driven (max 100mA)
SENSORS	
HEADING	9-Axial, Internal use only, Accuracy: +/- 1 deg, Updated rate: 10Hz (max)
BAROMETER	Update rate 1Hz max (averaged)
BATTERY VOLTAGE	Measured at power input
EXTERNAL SENSORS INPUTS	5 Inputs, Digital (0-24V), Analog (0-10V)