Hardware Comparison Chart

	DMR-800L (IsatM2M)	TT3026D (Inmarsat-C)	Watchdog (Iridium)	Sailor 150 (Fleet Broadband)
GPS Tracking	X	X	X	X
Two-way Communication	X	X	X	X
Electronic Forms	X	X	X	X
E-mail (without attachments)		X	X	X
Full Email/Web Access				X
Approximate Base Price per Vessel	$800	$1,500	$1,500	$6,000
add Electronic Forms	+$1,500	+$1,500	+$1,500	+$1,500

Absolute Software

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Sailor 150 – Inmarsat Fleet Broadband

The Sailor 150 is our most sophisticated VMS Mobile Transceiver Unit (MTU).

Recently introduced as a smaller, lightweight and lower-cost version of the Inmarsat Fleet Broadband product range the Sailor 150 terminal from Thrane & Thrane provides for simultaneous use in VMS applications; whilst also providing both voice and data services to the crew on-board the fishing vessel.

Features	
Satellite Network	Inmarsat
Data Rate/Protocol	9.6kbps to 150kbps, TCP/IP
Power	10-32 VDC, 120W max (tx)
Backup Power (optional)	DC/DC UPS for 12 hours (typical)
Tamper resistant level	Level 1 (tamper evident antenna)
GPS	50 Channel Integrated
Size and Weight	291.9 mm x Ø275.6 mm, 3.9 kg
Sensors	5 digital I/O, Ethernet
Environment	-25 to +55°C, Antenna IPX6 rated

Hardware/Firmware Alarms (incuding)	
Unit Power On, Battery Backup, Off	✔
Antenna Block - GPS	✔
Antenna Block - Satellite	✔
Geofence Entry/Exit	✔
Change of Speed (transit/fishing)	✔
Other	
Logfile (positions)	>100,000
Remotely update firmware	Yes
Retrieve position log remotely	Yes

Watchdog – Iridium

The Watchdog transceiver offers VMS functions, email and short data transmission.

Operating on the Iridium Short Burst Data (SBD) network, the Watchdog Mobile Transceiver Unit (MTU) combines an integrated intelligent GPS, with on-board firmware for all VMS functions housed in a tamper resistant enclosure. Iridium position verification (by Doppler) acts as a second layer of anti-tamper protection

Features	
Satellite Network	Iridium
Data Rate/Protocol	2.4kbps, Short-Burst-Data (SBD)
Power	9-16 VDC, 10W max (tx)
Backup Power (optional)	DC/DC UPS for 90 hours (typical)
Tamper Resistance Level	Level 3 (Iridium Doppler position)
GPS	16 Channel Integrated
Size and Weight	209mm x 120mm, 1.5 kg
Sensors	4 digital I/O, CAN Bus
Environment	-20 to +50°C, Antenna IP67 rated

Hardware/Firmware Alarms (incuding)	
Unit Power On, Battery Backup, Off	✔
Antenna Block - GPS	✔
Antenna Block - Satellite	✔
Geofence Entry/Exit	✔
Change of Speed (transit/fishing)	✔

Other	
Logfile (positions)	>5,000
Remotely update scripts	Yes
Retrieve position log remotely	Yes

TT3026D – Inmarsat Mini-C

The TT3026D is the most widely used maritime tracking device.

Over 30,000 Sailor Inmarsat-C and Mini-C fitments are in place worldwide for Vessel Monitoring Systems, the Global Maritime Distress & Safety Service, Long-range Identification & Tracking and the Ship Security Alert System. First introduced in 2000, Inmarsat Mini-C is the only network to support simultaneous GMDSS+SSAS+VMS use.

Features	
Satellite Network	Inmarsat
Data Rate/Protocol	0.6kbps, TDMA
Power	11-32 VDC, 23W max (tx)
Backup Power (optional)	DC/DC UPS for 72 hours (typical)
Tamper resistant level	Level 2 (tamper resistant antenna)
GPS	12 Channel Integrated
Size and Weight	163 mm x 146 mm, 2.4 kg
Sensors	6 digital I/O, Serial (RS-232)
Environment	-35 to +55°C, Antenna IP68 rated

Hardware/Firmware Alarms (incuding)	
Unit Power On, Battery Backup, Off	✓
Antenna Block - GPS	✓
Antenna Block - Satellite	✓
Geofence Entry/Exit	✓
Change of Speed (transit/fishing)	✓

Other	
Logfile (positions)	>10,000
Remotely update scripts	Yes
Retrieve position log remotely	Yes

DMR 800L – Inmarsat M2M

The DMR 800L is the smallest, lower power consumption option

The DMR-800L is an integrated GPS and VMS antenna mounted in a low-profile enclosure. Popular on small vessels, and for semi-covert fitments, this option is the most cost effective when used in VMS applications involving predominantly position reporting (low to moderate electronic catch reporting requirements).

Features	
Satellite Network	Inmarsat
Data Rate/Protocol	0.2kbps, TDMA
Power	9-32 VDC, 12W max (tx)
Backup Power (optional)	DC/DC UPS for 90 hours (typical)
Tamper resistant level	Level 2 (GPS jamming detection)
GPS	16 Channel Integrated
Size and Weight	160 mm x 97 mm, 0.8 kg
Sensors	4 digital I/O, Serial (RS-232)
Environment	-40 to +85°C, Antenna IP67 rated

Hardware/Firmware Alarms (incuding)	
Unit Power On, Battery Backup, Off	✔
Antenna Block - GPS	✔
Antenna Block - Satellite	✔
Geofence Entry/Exit	✔
Change of Speed (transit/fishing)	✔
Other	
Logfile (positions)	>15,000
Remotely update scripts	Yes
Retrieve position log remotely	Yes

Secure E-Log Terminal

▶ **The Absolute-DX Secure Terminal**

▶ **Hardware Specifications**
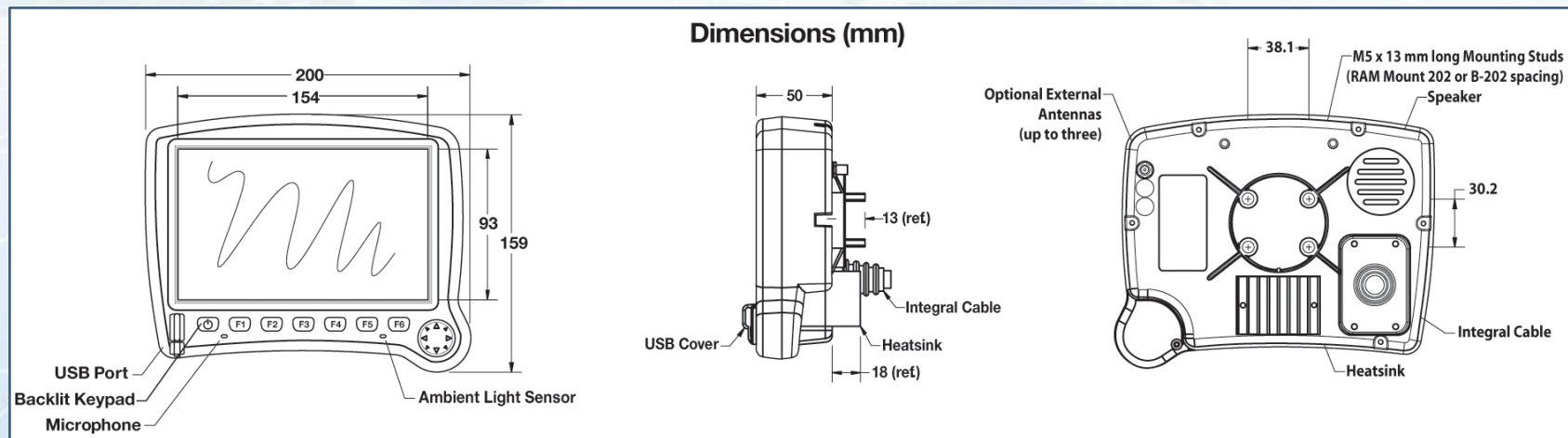
▶ **Communications Options**

Absolute-DX - Secure E-Log Terminal

Secure Electronic Logbook.
Provides real-time catch entry, with
automatic transmission via the VMS
Currently used on >2,000 vessels worldwide

- **800x480 pixel, 178 mm (7") color TFT LCD display**
- **Analog resistive touch screen**
- **Seven backlit function keys for common operations**
- **Serial port** (connects to serial VMS equipment)
- **Ethernet** (connects to Fleet Broadband VMS equipment)
- **Two USB ports** (keyboard, mouse or trackball)
- **J1939/NMEA-2000 (CAN) sensor interface**
- **Four additional Digital I/Os**

- **Windows® CE 5.0 operating system**
- **AMD Geode™ GX 500 (x86) processor**
- **128MB RAM, 2GB Flash Hard Drive**
- **8 to 32 VDC power range**
- **-20 to +60°C operating temperature**
- **Real-time clock**
- **Day/Night Mode Switch**
- **RoHS compliant, CE certified, FCC approved**

Specifications		
Housing	Material	Blended polycarbonate and polyester resin
	Mounting	Standard VESA mounting brackets
	Size	WxHxD 200x159x50 mm
	Mass	1.4 kg
Power	Standard	8-32 VDC input voltage, 12 watt average power (1A @ 12 VDC)
Environmental	RoHS	Compliant
	Temperature	Operating -20 to +60 °C Storage -40 to +80 °C
	Humidity	0 to 95%, non-condensing
	Vibration	10 to 1000 Hz, 4 g RMS
	Shock	20 g, 11 ms, any axis
	Certifications	FCC Part 15, Class A. CE EN60950-1, EN55022, EN55024
Communications	Modem	Quad-band GSM/GPRS modem (PTCRB certified)

Dimensions (mm)

Absolute-DX – Communications Options

Electronic Catch Reports, Logbooks and E-mails may be transmitted via any compatible device. The most cost effective option depends on the quantity and size of these transmissions.

Fleet Broadband

Ethernet

OR

Iridium

Serial

Inmarsat-C

IsatM2M

Satellite Service Providers

Inmarsat is an internationally recognized pioneer in the satellite communication industry. The Inmarsat-C network is widely used for VMS, and provides GPS tracking, email and safety services (via the Global Maritime Distress Safety System). Vizada and Stratos provide Inmarsat airtime to Absolute Software.

Iridium is the world's only truly global mobile satellite communications company. Iridium is particularly suited to VMS applications requiring a high number of electronic forms and/or for coverage at high latitudes (>70°). Absolute is an authorized Iridium Value Added Reseller.

SkyWave Mobile Communications provides satellite data communication products and network services to enable low-cost and dependable security and remote management of mobile and fixed assets. Operating on the Inmarsat IsatM2M network, the DMR range of products is ideal for VMS on small to midsize vessels.