



Inmarsat Portable & Vehicular M4: Always Ready Mobile High Speed Data Service

Toll Free: 877-GEO-CALL
Office: 615-889-8833 Fax: 615-902-0028
www.OutfitterSatellite.com
2911 Elm Hill Pike • Nashville, TN 37214 USA

EMS Storm & Cyclone

Inmarsat M4 Land Portable & Vehicular Terminals

The EMS Storm is a land portable Inmarsat M4 terminal providing **global voice, fax, and 64 kbps** data service. The Storm weighs only 12 lb and is extremely rugged. Voice service is provided through a **hardwired handset**. A unique feature of the Storm is that a simple bonding cable connected to a second Storm terminal provides **128 kbps data rate**. No external multiplexer is required! Mobile Packet Data Service (MPDS) is also supported.

The EMS Cyclone (right top) uses the same transceiver with a vehicular auto-tracking antenna (see right) to provide **continuous connections even while the vehicle is in motion**.

Typical applications include videoconferencing, store and forward video, and data .



Storm Specifications:

- Typical Battery Life at 20°C: up to **3 hour talk time** (low speed), up to 1 hour 64 kbps data
- Terminal size: 8.7" x 10.6" x 3"
- **Weight 12 lb (5.5 kg)** including battery
- Operating temperature: **-25°C to +55°C** for antenna and transceiver
- Operating Humidity: Transceiver 95% condensing at 40°C; antenna 100% condensing
- Storage temperature: -40°C to +80°C for antenna and transceiver
- MPDS, 64 kbps data; 4.8 kbps compressed voice, 3.1 KHz audio
- **Secure STU III/IIB supported**
- S/T ISDN compatibility
- **Interfaces: RJ45, two RJ11, RS232, X.21, RS449, and USB**
- **Power Requirements:** Input AC: 100-240 VAC 47-63 Hz Input DC: 10.2-15.6 VDC



EMS Storm Standard Kit includes: softcase, transceiver unit, 10-meter cable, internal battery, AC charger with international plug set, DC charger, manual, & CD ROM.

Options include: Watertight Pelican 1610 Hardcase (black with wheels), Bridging cable (for bonding two transceivers to achieve 128,000 bps), and Watertight Pelican 1610 case.

All specifications subject to change without notice. Prices shown in U.S. dollars. Outfitter Airtime Contract required for above listed pricing.



Inmarsat Fleet Terminals:

Always Ready Marine High Speed Data Service

Toll Free: 877-GEO-CALL Office: 615-889-8833
 Fax: 615-902-0028 www.PhoneTraders.com
 2911 Elm Hill Pike • Nashville, TN 37214 USA

EMS Fleet 55 Terminals

Global Voice, Fax, and High Speed Data Services for Marine Applications

Outfitter offers Fleet 33, Fleet 55, and Fleet 77 terminals. If there is no GMDSS requirement, Outfitter recommends the EMS SATCOM Fleet 55 terminal. This terminal is cost effective and offers voice, fax, and data services, including Mobile Packet Data Service (MPDS) for "always on" internet access. MPDS is particularly suited for web browsing and email connectivity and is billed in MegaBits of usage rather than online connection time. The EMS SATCOM Fleet series have a very comprehensive selection of interfaces, including: ISDN, X.21, RS449, RS232, two RJ11 ports. Secure communications using STU III/IIB are supported.

Some marine Inmarsat applications require certified installation. **Fleet 33** is another option available to you if you can accept slower data rates.. Please contact Outfitter Satellite for more information.



EMS Fleet 55 Specifications

- Spot Beam Services: ISDN 56k/64k kbps (UDI, 3.1k audio, speech); MPDS (mobile packet data service)
- Global Services: mini-M voice (4.8 kbps); STU IIB/III (optional)
- Transceiver Size and Weight: Size: 220 x 269 x 75 mm; Weight: 2.5kg
- Transceiver Operating Conditions: Temperature Range: -25° to +55°C; Humidity: 95% non condensing at 40°C
- Antenna Size and Weight: diameter 570 mm; height 680 mm; weight 18 kg
- Antenna Operating Conditions: -25°C to +55°C; Relative Humidity: 95% at 40°C; Spray: Solid droplets from any direction; Solar radiation: Infrared at 500 W/m2, Ultra violet at 54 W/m2; Rain: 100 mm/hour; Wind: Operation with relative average wind speed of up to 100 knots

COMPARISON OF Fleet 33 / 55 / 77

Service	F77	F55	F33
Coverage	Voice (4.8) : Global Data : Global beam Fax : Global beam	Voice (4.8) : Global Data : spot beam Fax : spot beam	Voice : Global Data : spot beam Fax : spot beam
Voice	4.8 kbps (64 kbps also available)	4.8 kbps (64 kbps also available)	4.8 kbps
Fax	2.4 kbps (option) G3 9.6 kbps (option) G3 3.1 kHz audio (14.4 kbps) G4 64 kbps	G3 9.6 kbps (option) G3 3.1 kHz audio (14.4 kbps) G4 64 kbps	G3 9.6 kbps
Data	64 kbps ISDN	64 kbps ISDN	9.6 kbps with built in data compression V42bis/V44 (up to 40 kbps)
MPDS (packet data)	up to 64 kbps in both ways	up to 64 kbps in both ways	up to 64 kbps downloading up to 28.8 kbps uploading (service available Q4 2003)
Distress	Yes, Voice	No	No
Antenna size & weight (depends on model)	Largest: 75-90 cm diameter 30-70 kg	50-60 cm diameter 18 kg	Smallest: 30-40 cm diameter 8 kg



Portable VideoPhone & Video Conferencing Solutions

Office: 615-889-8833 Fax: 615-902-0028
www.OutfitterSatellite.com
2911 Elm Hill Pike - Nashville, TN 37214 USA

Talking Head VideoPhone Codec for 64/128 kbps ISDN or Inmarsat M4

The **7E Talking Head VideoPhone** (shown with Thrane & Thrane Capsat Messenger Inmarsat M4 terminal) provides video communications suitable to 64 or 128 kbps ISDN or Inmarsat M4 service. Outfitter Satellite offers several types of multiplexed Inmarsat M4 solutions for achieving 128 kbps data access. The unit contains an adjustable **6.4" TFT display** and **speaker**. The Talking Head is integrated into a tough waterproof case adequate for cables, microphones, and headphones, and it has a minimum of complex controls. **In short, a Talking Head is hard to break and easy to use.**



Excellent picture quality at 64 or 128kbps is assured by the latest **H.263** compression algorithms, or you can select to transmit high quality **7.5kHz audio** and low speed pictures instead. A simple mixing facility on the unit enables **low-Z microphones** and balanced or unbalanced line sources can be connected simultaneously. A custom designed I/O processor optimizes the audio/video for transmission and provides both professional **XLR/BNC** and **domestic phono connections**. Headphone jack sockets provide direct and cue (return) signals for monitoring purposes. The unit requires 90-264VAC 47-400Hz or 10.8-14.4V VDC (remote control requires two AA batteries). Optional external power kits are available from Outfitter Satellite.

Specifications (subject to change without notice)

Video

ITU-T H.320, H.261 and H.263
CIF resolution (352 x 288 pixels) at up to 15 fps
QCIF resolution (176 x 144 pixels) at up to 30 fps
Input: Composite, 75W BNC/Phono (PAL or NTSC)
Output: Composite 75W BNC (PAL or NTSC)

Audio

ITU-T G.728 AND G.722 Full duplex with echo cancellation
Line audio inputs (2) XLR & Phono
Microphone input (1) XLR

Display: 6.4" TFT Camera: Single Chip (optional)
Data RS-232 async. with T.120 to special order
Network ISDN Basic Rate (2B+D); Euro-ISDN compatible
Dimensions: 356 x 265 x 155 mm
Weight: 4.5 kg
Power: 90-264V AC; 50-60Hz or 12V DC
Operating temperature: 0 to 40°C ambient
Non-operating temperature: -10 to 60°C
Operating humidity: 20% - 90% (non-condensing)
Non-operating humidity: 10% - 95% (non-condensing)

Available Equipment:

- **7E Talking Head TH-1 Video Phone**
- **7E Talking Head TH-2 Video Phone** (with integrated multiplexer)
- **7E S0DA 128 kbps Multiplexer** (multiplexes two M4 units)
- **7E TH-R Rack Mountable Basic with one codec**

All prices and specifications subject to change without notice. Purchase of new equipment is considered a custom order and returns or refunds are not allowed. Shipping costs will be determined at time of shipment. Purchase orders are accepted with credit approval. Prices are in USD. For information on renting this equipment call Outfitter Satellite. Prices shown requires purchase of M4 terminal.



Ultimate Power Kit: When you need to carry your power with you...

U.S. Toll Free: 877-Geo-Call (877-436-2255)
Office: 615-889-8833 • Fax: 615-902-0028
www.OutfitterSatellite.com
2911 Elm Hill Pike • Nashville, TN 37214 USA

Solar Power and Energy Storage in a rugged transportable package

If you need a reliable source of 12 VDC or 115 VAC 60 Hz power capable of going into a rugged environment, you need an **Ultimate Power Kit**. Our Ultimate Power Kit includes the following components: **four fuel-gauged Li-Ion rechargeable battery packs**, 150 Watt AC inverter, and a watertight transport case. A highly recommended option is a compact 25-Watt tri-fold ruggedized solar panel.



Powering 12 VDC Equipment: Each of the four Li-Ion batteries has 150 Watt-Hours of energy storage and can sustain up to **14 Amps of output current** through a 12 VDC cigarette lighter output. Each of the four batteries would run a typical 20 Watt notebook computer for about 5 hours (20 hours total). The realtime fuel-gauge system on each battery lets you know how much energy remains.

Powering 115 VAC Equipment: In addition to 12 VDC power, you can also use the AC inverter (included) to convert the battery pack's DC output to **115 VAC 60 Hz "wall power"**. Any AC powered equipment that uses less than 150 Watts can be operated in this manner.

Re-Charging Your Ultimate Power Kit: Recharging your batteries is easy whether you are in the field, in your vehicle, or at home. You can recharge each of the Li-Ion batteries using our optional **25-Watt tri-fold solar panel in 7-8 hours of strong sunlight** (that is, 4 days of sunlight to recharge all four batteries). You can **also recharge using 115-240 VAC 50/60 Hz wall power**. Your vehicle's 12 VDC power can be converted to AC with the AC inverter, if you wish to recharge from your vehicle.

Component Specifications:

Li-Ion Battery Pack (custom order)

- Two 15 V sections with separate pack protection electronics and capacity gauge in Hard Plastic Case
- **Nominal Output:** 15 VDC; 4 A continuous
- **Capacity:** 11 AH (150 Watt-Hours) at 1 A and 23 deg C.
- **Operating Temperature:** -20 to 60 deg C.
- Input Power: requires specialized charger
- **Battery Weight:** 3.1 lb (or 1.4 kg), Size: 4.4" x 2.45" x 5"

DC-to-AC Inverter

- 150 watt continuous power; 300 watt peak power
- Operating input voltage: 9.5 – 16 volts DC
- 3-prong-type AC receptacle
- Weight: 2.5 lbs; Size: 9.5" x 6" x 2"

Pelican Case (watertight unless external outlet option)

- **Shipping Weight:** 10 lbs for 1450 Case
- Outside Dimensions: 16-1/8"L x 13-1/4"W x 7"D for 1450 Case
- Available in Gray/Silver, Black, Yellow, or Orange

Prices and specifications are subject to change without notice. Payment is due upon order by wire, credit card, or check drawn on a US bank. Prices are quoted in \$US. The customer is responsible for all applicable duties, taxes, and installation fees. Purchase orders accepted with credit approval; these battery packs are custom batteries and orders are non-returnable and non-cancellable. Orders of more than 50 units may have delivery dates 12 or more weeks after downpayment is received. All prices in USD. **SHIPPING TERMS:** Shipping charges will be added to the customer's bills after shipping arrangements have been made. Same day shipping is available with most accessories.