# TT-3020C Inmarsat-C/GPS Maritime GMDSS Capsat®



# **Features**

- Full compliance with the latest Inmarsat-C specifications for SOLAS/GMDSS with distress calling CN 114, IEC 1097-4, IEC 945, and CE requirements.
- Extremely power conserving, light weight, and compact design (car radio size).
- 2-way e-mail, and fax transfer to destinations world-wide.
- Data- and position reporting to multiple destinations at user defined time intervals.
- Pre-programming of DNID's for global coverage.
- Ideal for maritime SOLAS/GMDSS installations with floating dc-supply.
- Supported by the Capsat® fleet tracking and fleet management software.

# Description

The compact TT-3020C full SOLAS/GMDSS Capsat® Transceiver is your ultimate choice for global Inmarsat-C mobile communication. The TT-3020C offers fast and reliable connections to any fax and data subscriber worldwide and/or directly to and from another Capsat® unit.

The ruggedized, extremely compact design, and power conserving features of the TT-3020C transceiver, makes it very attractive for use in your new GMDSS installation. Use it for control, management and/or communication, and always be ensured of a fast and reliable transfer of vital information, i.e. position reporting, data monitoring, messaging, fleet coordination etc.

The TT-3020C supports all Inmarsat communication modes, including telex, X.25, e-mail, and mobile-to-land fax services, the standard PU/PA programming formats, as well as an advanced reporting format with multiple DNID's, independent reporting timers and global ocean area preprogramming.

The TT-3020C Transceiver can be supplied with our compact omni-directional TT-3005M antenna, integrating both Inmarsat-C and GPS operation into one single unit.

Operation and control of the TT-3020C may be performed via either our TT-3606E GMDSS approved Message Terminal.

Additional peripherals such as ac/dc power supply with automatic switchover, remote alarms and FOC printers etc. may be supplied for your GMDSS installation.

The Transceiver also includes a number of parallel control ports, standard NMEA 0183 nav/data interface and an advanced ArcNet local network interface for connection of up to several ArcNet printers and alarm panels.

The TT-3020C supports our home base Capsat® Manager Program for fleet tracking and fleet management.

# **Specifications**

#### General Specifications:

Meets or exceeds current and proposed INMARSAT specifications (CN114), and IEC 1097-4/IEC 945 for full SOLAS/GMDSS installations.

#### Operating Frequencies:

Receive 1525.0-1559.0 MHz Transmit 1660.5 MHz. GPS 1575.42 MHz.

# Channel Spacing:

1.25/2.5/5 kHz.

## Modulation:

1200 symbols/sec. BPSK.

# Antenna Interface:

Standard 50 ohm female TNC (transceiver), female TNC (antenna). Up to 70 m antenna cable.

#### Printer Interface:

Standard parallel IEEE 1284 (Centronics), DB-25F connector.

### Data & GPS I/O:

Serial EIA-422-A optically isolated input (NMEA 0183 protocol), DB-15F Parallel 1/0:

RS-410 4-bit open collector input/output and 2-bit input.

#### Data Rate:

600 bit/sec

#### Terminal Interface:

Serial EIA-232-E110-38.400 Baud IA-5 code, DB-9F connector

#### ArcNet Interface:

Token based, twisted pair, 156 kbit.

#### Solid-State Storage:

512 kbyte Flash and 256 kbyte SRAM.

#### Optional GPS Module:

12-channel GPS tamper proof pcboard, Isec. Updale rate, 15m RMS accuracy (100m with S/A), 0.2m RMS velocity accuracy.

#### Power Source:

10-32V floating dc 4.8/81WRx/Tx with GPS module.

## Power Output:

Floating 9V/400mA dc output for terminal equipment. Ambient temperature: Electronics Unit, -25°C to 55°C operating, -40°C to 80°C storage.

Antenne Unit, -35°C to 55°C operating, -40°C to 80°C storage.

## Solar Radiation:

1200W/m2 max. Flux density

#### Relative humidity:

96% non-condensing at 40°C.

### Precipitation:

Up to 10 cm/hour, droplet size 0.5 to

#### Wind:

Up to 200 Km/h.

#### Vibration Operational:

Random 5-20Hz 0.005 g2/Hz, 20-150 Hz-3dB/Oct. (0.5g rms)

#### Vibration Survival:

Random 5-20 Hz 0.05 q2/Hz, 20-150 Hz-3dB/Oct. (1.7g rms).

#### Shock:

Half sine, 20g/11 ms

#### **Electronics Unit Mounting:**

Flange mounting, vertical or horisontal.

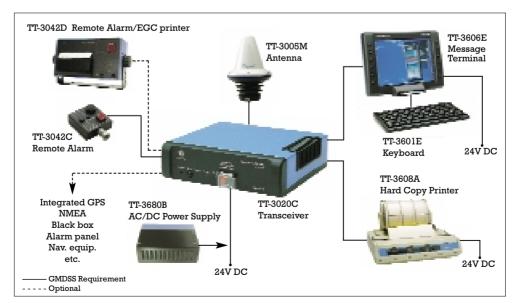
#### Dimension:

Electronics Unit HxWxD, 50mm x 180mm x 165mm, Antenna Unit HxD, 178 mm x 122mm incl. Mast Mount.

Electronics Unit 1.3 kg.

Our products are under continuous research and development, This information may therefore change without prior notice

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Distributor:

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