

NaviCom F 77 **Global Maritime Connectivity**

Features

- *Online, all the time with Mobile Packet Data Service (MPDS)*
- *64 kbps ISDN*
- *3.1 KHz Audio*
- *Speech*
- *Mini-M Voice*
- *Fax*
- *Global Voice Distress*
- *Single-channel system*
- *Simple installation because of its lightweight and compact transceiver and antenna*
- *Rapid configuration via handset or PC*
- *Shipboard communication hub*
- *Compact, convenient, cost-effective and reliable*
- *Global coverage, 78° north to 78° south*



Description

The Sperry Marine NaviCom F 77 maritime communications terminal offers high-speed and cost-effective voice and data communication based on either the MPDS (Mobile Packet Data Service) protocol with constant online access or a 64 kbps ISDN connection.

With MPDS you are only charged for the amount of data sent, not for the time the channel remains open, making it the most economic and convenient solution for e-mail, small- and medium-size transfer, LANs, VPNs and Internet.

ISDN services provide a high-capacity channel with a constant data stream and are usually preferable for uploading or downloading large files.

The tracking antenna is 880 mm high, has a diameter of just 840 mm and weighs only 27 kg. It is line replaceable and features a bottom hatch for easy service and maintenance access. The antenna can be placed up to 70 meters from the transceiver.

The NaviCom F 77 transceiver provides a constant two-way link to Inmarsat satellites offering Inmarsat Fleet MPDS communications. The system is accompanied by user-friendly software, which enables simple configuration from a standard PC.

The Sperry Marine NaviCom F 77 transceiver and antenna provide the hub for online communication all the time via desktop phones, payphones, DECT phones and fax machines.

Connected to an IP router, the NaviCom F 77 terminal can integrate the vessel 24 hours a day with onshore management systems via the Web, including e-mail and Internet services.

The NaviCom F 77 operates through the established network of Inmarsat and GPS satellites with interconnection to the international fax and packet switched data networks, offering fast and reliable transfer of information, 24 hours a day.

Sperry Marine

www.sperrymarine.northropgrumman.com
For more information, please contact:

AMERICAS

Charlottesville, VA USA

Tel: +1 434-974-2000

Fax: +1 434-974-2259

Melville, NY USA

Tel: +1 631-719-4736

Fax: +1 631-719-4630

ASIA

China, Shanghai

Tel: +86-21-5836-9978

Fax: +86-21-5836-9979

Hong Kong, Sheung Wan

Tel: +852-2581-9122

Fax: +852-2581-9967

Japan, Tokyo

Ph: +81 (0)-3-3863-7401

Fax: +81 (0)-3-3863-7455

Singapore

Tel: +65-6274-3332

Fax: +65-6271-3339

South Korea, Busan

Tel: +82-51-247-7455

Fax: +82-51-247-7454

Taiwan, Kaohsiung

Tel: +886-7-331-7786

Fax: +886-7-331-7924

CANADA

Nova Scotia, Halifax

Tel: +1 902-468-9479

Fax: +1 902-468-9480

EUROPE

Belgium, Antwerp

Tel: +32-3-233-14-33

Fax: +32-3-225-05-53

Denmark, Copenhagen

Tel: +45-77-33-66-33

Fax: +45-77-33-66-11

Germany, Hamburg

Tel: +49 (0)40 299 00-0

Fax: +49 (0)40 299 00-146

Holland, Vlaardingen

Tel: +31(0)-10-4451600

Fax: +31(0)-10-4345015

Norway, Bergen

Tel: +47-55-94-94-94

Fax: +47-55-34-52-27

United Kingdom, New Malden

Tel: +44(0)20 8329 2000

Fax: +44(0)20 8329 2415



Technical Specification

Specifications:

Meets or exceeds current and proposed INMARSAT specifications for Inmarsat-phone spot- and global-beam operation.

Antenna:

Sensor stabilized platform with directional RHCP Antenna. No cable unwrap. Maximum pointing error +/- 5 deg.

Ship Motions:

Roll +/- 25 deg, Pitch +/- 15 deg, Yaw +/- 8 deg, Surge +/- 0.2g, Sway +/- 0.2g, Heave +/- 0.5g, Turning Rate +/- 12 deg/s, Headway 30 knots.

G/T:

-4 dBK minimum — EIRP: HSD: 8-32 dBW in 1dB steps. Mini-M: 5-26 dBW in 1 dB steps.

Antenna Cable:

N/N male, maximum cable loss 12 dB at 1.6 Ghz, 0.5 ohm at DC.

Antenna Connector:

N female (50 Ω)

Transceiver Connector:

TNC female (50 Ω), short TNC/N pigtail cable supplied.

Rx Freq. Band:

1525.0 – 1559.0 MHz

Tx Freq. Band:

1626.5 – 1660.5 MHz

Channel Spacing:

1.25 kHz — Rx

Modulation:

5.6 kbps O-QPSK SCPC (voice, fax), 6 kbps BPSK TDM, 134.4 kbps 16QAM SCPC (data)

Tx Modulation:

5.6 kbps O-QPSK SCPC (voice, fax), 3 kbps BPSK TDM, 134.4 kbps 16QAM SCPC (data)

Interfaces

Voice:

4.8 kbps AMBE, 64 kbps broadcast

Asynchronous Data Rate:

Euro ISDN 64 kbps and US ISDN 56 kbps

Phone Interface:

2-wire 600Ω CCITT rec. G.473, standard DTMF telephones, RJ-11 modular jack

Fax Interface:

2-wire 600Ω CCITT rec. G.473, T.30 Groups III Fax, RJ-11 modular jack

Data Interface:

Serial EIA compatible standard RS-232E, built-in Hayes compatible modem, up to 115 kbps, DB-9 female connector

Euro ISDN Interface:

ISDN NT1 S/T bus, ITU-T I.430, ISO 8877 compliant RJ 45 connector

USB Interface:

USB slave interface

Power Supply and Consumption

Power Supply:

18 – 32 Vdc floating

Power Consumption:

70W TX-mode (typ.), 20W RX-mode (typ.), Max. 90W [TBD]

Environmental Conditions

Ambient Temperature:

-25°C, +55°C for EME. 0 – 45°C for IME

Relative Humidity:

BDU: 95% non-condensing at +40°C

ADU: 95% non-condensing at +40°C

Vibration (antenna):

4-10 Hz 2.54mm, 10-15 Hz 0.76mm, 15-25 Hz 0.40mm, 25-33 Hz 0.23mm

Mechanical Shock:

20g/11ms half-sine

Dimensions and Weight

Transceiver (TT-3038C):

2.6 kg, 53.75mm x 377mm x 163.7mm

Maritime Stabilized Antenna (TT-3008C):

27 kg, Diameter: 840mm, Height: 880mm

Cradle for the Handset:

0.25 kg, 100mm x 145mm x 42mm

Handset (TT-3620F):

0.24 kg, 200mm x 52mm x 33mm

Sperry Marine, with worldwide headquarters in Charlottesville, VA, and major engineering and support offices in Melville, NY, New Malden, England, and Hamburg, Germany, is part of the Northrop Grumman **Electronic Systems** sector.

This brochure, including the information contained herein, is the Intellectual Property of Northrop Grumman Corporation and as such may not be copied or reproduced without the written permission of Northrop Grumman. All specifications herein were in effect on the date of this publication. However, any technical data should not be solely relied upon and should be verified at time of order. Furthermore, equipment may vary from that specified due to the Sperry Marine policy of continual product improvement.