

NSGDatacom Inc.

Model 1102

HF High Speed Multi-Mode Data Modem

- **Multi-Mode PSK, FSK or FDM**
- **Full / Half Duplex**
- **Synchronous or Asynchronous**
- **Front Panel or Remote Control**
- **Built-in Test**
- **Excision Filtering**

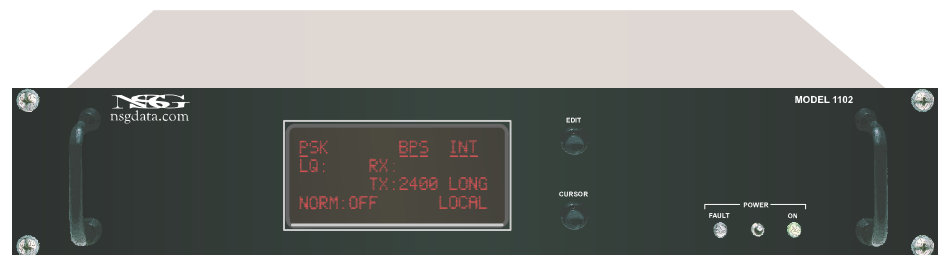
NSGDatacom's Model 1102 High Speed Multi-Mode Data Modem is a powerful, multi-mode serial tone modem capable of transmitting and receiving up to 4800 bits per second in a standard 3 kHz HF radio channel.

An adaptive equalizer eliminates the detrimental effects of multipath associated with HF transmissions, and convolution coding with soft decision Viterbi decoding provides error detection and correction. Protection against interference is provided by excision filtering, which automatically removes unwanted interfering signals.

The Model 1102 is designed to meet the performance requirements of MIL-STD-188-110A, STANAG 4285, STANAG 4529, and STANAG 4481, and provides flexibility through its interoperability with other widely used FSK modems. It features full-duplex/ half-duplex operation, and a synchronous or asynchronous DTE interface.

In the Frequency Division FDM mode several telegraph channels may be multiplexed, on a frequency basis, into a 3kHz HF circuit. A single Model 1102 can support up to eight channels and sixteen channels can be supported by interconnecting two units.

Additional operational modes can be supported by firmware expansion or substitution.



Model 1102 Specifications

Model 1102

Physical

Size:

3.47" H x 17" W x 16" D (19" Rack Mount)

Weight:

12lbs

Environmental

Temperature:

Operating: 0 to 50°C
Storage: -40 to +75°C

Humidity:

0 to 95% non-condensing

Altitude:

Operating: 0 to 15,000 feet
Storage: 0 to 25,000 feet

All Modes

Power:

- Source: 85 to 265 Vac
- Dissipation: 25 Watts maximum

Interface:

- Digital: MIL-STD-188-114, MIL-STD-188C, EIA-RS-232D compatible
- Audio: 600 ohms balanced and isolated

Serial Tone Mode

Data Rates:

75, 150, 300, 600, 1200, 2400, and 4800 bps

Interoperability:

- MIL-STD-188-110A

Modulation:

8-ARY PSK at 2400 symbols per second

Error Detection and Correction:

Convolutional coding with soft decision
Viterbi decoding

Interleaving:

Selectable at 0, 0.6 or 4.8 seconds

FSK Mode

Data Rates:

50, 75, 150, 300, 600, and 1200 bps

Modulation:

Phase continuous binary FSK

Mark/Space:

300 to 3500 Hz (selectable in 1 Hz increments)

Frequency Range Shift:

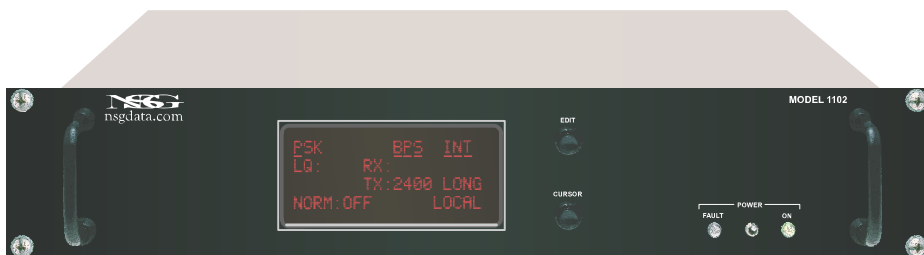
85 to 1200 Hz

- **MIL-STD-188-110A**

- **STANAG 4285**

- **STANAG 4529**

- **NATO BRASS
Compatible**



Specifications subject to change without notice.

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