MODEM 21 CORE
Secure Satcom IP Modem for Ground and Naval Operations

Enabling beyond-line-of-sight critical ground & naval connectivity

- Security and protection under extreme threats (jamming, cyberattacks)
- Self-adaptive to adverse conditions and satellite resources optimisation
- Maintained connectivity in multi-spot satellite architecture
- Rugged and sealed housing compliant with military ground and naval platforms
Military forces rely on secure SATCOM on-demand bandwidth to share and disseminate information when and where it is needed. MODEM 21 CORE is a ground and naval satcom IP modem providing high data rate, secure and resilient SATCOM communications for a wide range of naval platforms and for Headquarters or anchor stations.

MODEM 21 CORE is part of Thales’s SYSTEM 21, the most secure high-speed and multi-waveform satcom transmission system on the market today. MODEM 21 CORE provides unrivalled protection against jamming and interference together with a high IP throughput.

**PHYSICAL CHARACTERISTICS**
- Size (HxWxD): 42.24 x 482.6 x 495.8 mm
- Weight: < 8 kg
- Temperature:
  - Operating: -10°C to +50°C
  - Storage: -40°C to +85°C
- Relative humidity: 95% at 40°C
- Power consumption: < 100 W
- Power supply: 90-254 V AC, 47-63 Hz
- Altitude: up to 3,000 m

**MODULATION & DATA RATES**
- MODCOD: BPSK 1/6, 1/4, 1/3
  - QPSK 1/4, 1/3, 2/5, 1/2, 5/8
  - 8PSK 1/2, 2/3
- Spreading: from BPSK 1/6 to BPSK 1/24
- Data rates: up to 50Mbps

**INTERFACES**
- Radio Interfaces:
  - L Band Tx/Rx type N
  - Software controllable 10 MHz reference on Tx/Rx
  - Software controllable LNB Power Supply on Rx
- Traffic Interface:
  - 10/100 Ethernet 802.1Q VLAN or 802.3 Level 3
  - 7 level QoS (Strict Priority Queuing and CBWFQ)
- Management Interface:
  - Built In Web Management Interface
  - Remote SNMP Interface
- Time and Frequency Interface:
  - NMEA0183 or IRIG B Input
  - Embedded GNSS Receiver
- Security Interface:
  - DS101 Key Loading Interface
  - Zeroize Button
- Antenna Support Features:
  - OpenAMIP
  - RSSI
- Electronic Warfare System Support

**STANDARDS & CERTIFICATIONS**
- MIL-STD-810G (military environment)
- Compatible with STANAG-4606 and STANAG-4731
- CE marking

**COMPREHENSIVE MONITORING & CONTROL**
- Local via web-based GUI
- Remote via SNMP MIB