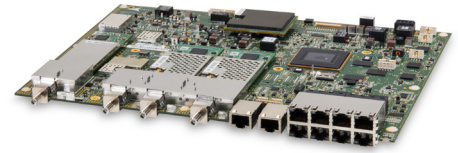


# 900 Board Satellite Modem



ST Engineering iDirect's 9-Series modems provide a superior level of IP broadband capability, supporting DVB-S2/ACM and Adaptive TDMA and are designed for high-bandwidth fixed and mobility applications. The 9-Series has enhanced performance, efficiency and security with FIPS 140-2 Level 3 certification and supports both one-way and two-way TRANSEC to enable mission-critical communications.

The 900 modem board features dual DVB-S2 demodulators for networks utilizing multiprotocol encapsulation (MPE) traffic, as well as an 8-port Gigabit switch to securely segregate user traffic. The 900 is designed to meet MIL-STD 810G when placed in a properly engineered enclosure. Optimized for integration into both fixed and mobile terminals, the 900 is a powerful board-level solution.

The 900 modem board feature set is also available in a rackmount form factor. The 9350 Modem comes in a 1RU chassis and features an LCD screen, allowing the user to view modem configuration and statistics as well as a zeroize button for added security.

## Markets

Government / Defense

### Main Features:

- DVB-S2 up to 45 Msps
- Adaptive TDMA up to 29 Msps
- Dual demodulators to support two data streams
- Ideal for both fixed and mobility applications
- FIPS 140-2 Level 3 Certified (#3056) TRANSEC module (E0002268)
- Extended frequency ranges for WGS constellations

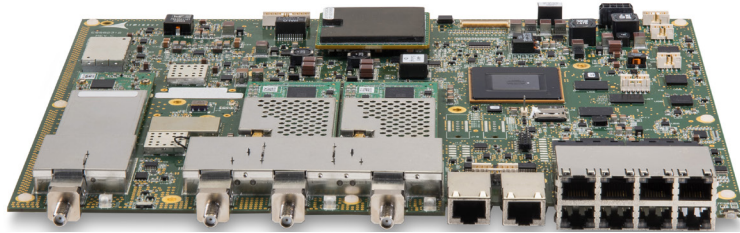
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**Newtec**  **iDIRECT**



## Network Configuration\*

| Network Topology | Rx1 and Rx2                | Tx                         |
|------------------|----------------------------|----------------------------|
|                  | DVB-S2/ACM                 | Adaptive TDMA              |
| Modulation       | QPSK, 8PSK, 16APSK, 32APSK | SS-BPSK, BPSK, QPSK, 8PSK  |
| FEC Rates        | LDPC 1/4-8/9               | 2D 16-State 1/2-6/7        |
| Symbol Rates     | Up to 45 Msps              | Up to 29 Msps              |
| Spread Spectrum  |                            | SF: 2, 4, 8; Up to 29 Mcps |

## Modem Interfaces

### Tx Interface

|                        |                              |
|------------------------|------------------------------|
| Connector              | SMA, 50Ω                     |
| Frequency range L-band | 950-2400 MHz                 |
| Tx level               | Composite Power +3dBm/-35dBm |
| BUC power supply       | +24V, 5A max<br>+48V, 5A max |
| BUC reference          | 10 MHz and 50 MHz            |

### Rx1 and Rx2 Interfaces

|                  |                     |
|------------------|---------------------|
| Frequency        | 950-2150 MHz        |
| Connector        | SMA, 50Ω            |
| LNB pwr supply   | +13V to +19V, 0.45A |
| LNB LO selection | 22 kHz on/off       |

### Data Interface

LAN: 8-port switch, 10/100/1000, 802.1q VLAN

### Management Interface

RS-232 Console, RS-232 Serial NEMA GPS Input, RS-422 Keyline, RS-422 BUC control, RS-422 Filter select

## Management

### Protocols Supported

TCP, UDP, ACL, ICMP, IGMP, RIPv2, Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, OpenAMIP™, OpenBMIP, cRTP and GRE

### Security

FIPS 140-2 Level 3 Certified (#3056) TRANSEC module (E0002268), AES Link Encryption (256-bit)\*\*, X.509 Digital Certificates, Automatic Key Management

## Mechanical and Environmental

|  |  |
|--|--|
| Size   | W 28.44 cm x D 22.22 cm x H 2.54 cm (W 11.2 in x D 8.75 in x H 1.0 in) |
| Weight   | 0.77 kg (<1.7 lbs)   |
| Temperature:   |  |
| Operating  | -40° to +60°C (-40° to +140°F)   |
| Humidity:  |  |
| Operating  | 95% non-condensing humidity  |
| <i>Refer to integration guide for thermal design guidelines.</i> |  |

## Power Supply

|                   |  |
|-------------------|--|
| Input Voltage     | 24VDC  |
| Power Consumption | <20 Watts without LNB and BUC<br><41 Watts with LNB max<br><170 Watts with LNB and BUC |

\*Specifications are Evolution only and software dependent

\*\*Applies to Velocity only and is software dependent

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