

Evolution iConnex e850mp Series Satellite Router Board

Portable, Powerful and Secure IP Broadband Connectivity

An extremely compact and lightweight board, the iConnex e850mp is designed to be easily integrated into a portable VSAT solution. It meets the most rigorous demands for mobility and security, delivering always-on broadband capabilities into smaller form factors that support data, voice, and video connectivity in highly mobile military and government applications.

Maximum Portability

Approximately seventy percent smaller surface area than our state-of-the-art e8350 router and half the size of the iConnex e800 board, the e850mp allows for maximum customization into a portable router solution that can be easily transported by a single person or mobile vehicle, making it ideal for Communications-on-the-Move (COTM), emergency response, and for command and control applications in the field.

Combined with leading spread spectrum technology, the e850mp enables use of ultra-small and phased-array antennas on aircrafts, ships, and land-based vehicles. The e850mp is fully enabled for iDirect's Global Network Management System (GNMS) and automatic beam switching technology allowing for a seamless network with truly global coverage while on the move.

Greater Flexibility

The e850mp offers the choice between iNFINITI TDM or DVB-S2/ACM on the outbound, providing even more flexibility for network design and bandwidth optimization. Combined with the highly efficient, deterministic MF-TDMA technology on the inbound, the e850mp delivers speeds up to 156 Mbps on the outbound and up to 6.5 Mbps on the inbound.

High Security

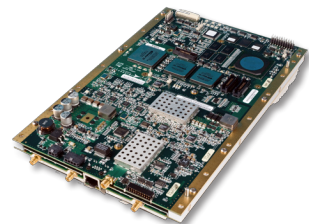
Compliant with the highest military security requirements, the e850mp features embedded AES encryption and TRANSEC with advanced FIPS 140-2 certification*. Also, to support Wideband Global Satellite (WGS) ranges, the e850mp is equipped to cover wider IF ranges, providing flexibility in secure network deployment.

Superior Quality of Service

Advanced Quality of Service (QoS) capabilities enable network operators to prioritize mission critical traffic and applications over their networks. With iDirect's state-of-the-art Group QoS, high-priority traffic designation can be recognized by advanced encryption devices and traffic can be segregated by groups of remotes, multiple sub-networks, and multiple applications, ensuring the highest quality transmissions where needed.

Simple, Intuitive Network Management

Service providers can easily configure and centrally manage each individual unit through the iVantage™ network management system, a complete suite of software-based tools for configuring, monitoring and controlling networks from one location.



Features

- ◆ Extremely compact and lightweight
- ◆ Star, Mesh* and iSCPC* topologies supported
- ◆ High carrier data rates up to 156 Mbps outbound, 6.5 Mbps on the inbound
- ◆ Two modes of operation: iNFINITI outbound and DVB-S2/ACM outbound
- ◆ Spread spectrum waveform technology supports very small antennas
- ◆ Unique TRANSEC security with AES 256-bit encryption
- ◆ Advanced QoS and traffic prioritization options
- ◆ Supports WGS IF ranges: 950-2000 MHz

Evolution 8000 Series Satellite Router Board iConnex e850mp



Configuration

| | | | |
|------------------------------|----------------------------------|---|---|
| Network Topology | Star, Mesh*, and iSCPC* | | |
| | <u>Downstream (iNFINITI TDM)</u> | <u>Downstream (DVB-S2/ACM)</u> | <u>Upstream (D-TDMA)</u> |
| Modulation | BPSK, QPSK, 8PSK | QPSK, 8PSK, 16APSK | BPSK, QPSK, 8PSK |
| FEC | Turbo, 0.495–0.879 | LDPC, 0.25–0.9 | Turbo, 0.431–0.793 |
| Maximum Carrier Rates | Symbol Rate | 15 Msps | 45 Msps |
| | Info Rate | 21 Mbps ¹ | 156 Mbps ² |
| | IP Data Rate | 20 Mbps ¹ | 156 Mbps ² |
| | Notes: | ¹ QPSK, .879 FEC; | ² 16APSK 8/9 FEC; |
| | | ³ QPSK .793 FEC, unlimited NMS | |
| | | The processing capability of an individual remote will be less than the stated maximum carrier size | |
| Spread Spectrum | Spreading Factor | 2, 4 and 8 | 1, 2, 4, 8, and 16 |
| | Max Rate (Msps) | SF2: 7.5; SF4: 3.75, SF8: 1.875 | SF1: 7.5; SF2: 3.75; SF4: 1.875 SF8: 0.9375; SF16: 0.469 |

Interfaces

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|----------------------------|--|
| SatCom Interfaces | TX Out: Type-F, 950–2000 MHz, Composite Power +7dBm/-35dBm RX In: Type-F, 950–2000 MHz, Composite Power 0dBm/-65dBm RX Out: Type-F, 950–2000 MHz Software controllable 10 MHz reference on TX Out and RX In ports |
| Data Interfaces | LAN: Single 10/100 Mbps Ethernet Console: RS-232 Console connection RS-232: GPS input or Antenna Control Signaling 10 MHz: External reference clock* |
| Protocols Supported | TCP, UDP, ICMP, IGMP, RIP Ver2, Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, OpenAMIP, cRTP, and GRE |
| Security | AES Link Encryption (256-bit), TRANSEC with FIPS 140-2 certification**, x.509 digital certificates authentication, Automatic Key Management |
| Traffic Engineering | Group QoS, QoS (Priority Queuing and CBWFQ), Strict Priority Queuing, Application Based QoS, Minimum CIR, CIR (Static and Dynamic), Rate Limiting |
| Other Features | Built-in Automatic Uplink Power, Frequency and Timing Control, Authentication |

Mechanical/Environmental

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|------------------------------|--|
| Size | W 10.35 in x D 6.675 in x H 1.24 in (W 26.29 cm x D 16.95 cm x H 3.15 cm) |
| Weight | 2.0 lbs (0.9 Kg) |
| Operating Temperature | -20° to +60°C (-4° to +140°F) at Sea Level |
| Altitude | Operational: Up to 10,000 feet (3048m); Storage: up to 30,000 feet (9144m) |
| Relative Humidity | Max 92% with condensing humidity |
| Input Voltage | +24V |

* Subject to future software release **Certification pending