# Remote Satellite Systems
### INTERNATIONAL

## Evolution X1 Series
## Satellite Router
## Models X1, X1-Ku/C, X1-HSO

Cost-effective remote bundle ideal for large-scale networks for SCADA, Point of Sale, ATM, Femtocells, and small Enterprise applications. The remote features DVB-S2/ACM and Adaptive TDMA, routing, VLAN functionality, QoS and optional AES encryption.

## Network Configuration

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|---|---|
| **Network Topology** | Star (DVB-S2/ACM downstream + ATDMA upstream) |
| **Modulation** | Downstream: QPSK, 8PSK, 16APSK , 32APSK; Upstream: BPSK, QPSK, 8PSK |

| **Maximum Rates Supported** | Rate | Downstream (DVB-S2) | Upstream (ATDMA) |
|---|---|---|---|
| | Symbol rate | 1 - 45 Msps | 128 ksps – 4 Msps* |
| | Info rate | Up to 150 Mbps | Up to 10 Mbps* |
| | Line Card IP rate | Up to 149 Mbps | Up to 8.5 Mbps |
| | Remote IP data rate | Up to 76.3 Mbps | Up to 8.5 Mbps* |
| | Max rates are achieved under optimal conditions. | | |

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| **FEC** | Downstream: LDPC, 1/4 - 8/9<br>Upstream: 2D 16-State, 1/2 - 6/7 |
| **$E_b/N_0$** | For full list, please refer to the latest iDirect Link Budget Analysis Guide |

## Interfaces

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| **SatCom Interfaces** | TxIF: Type-F, 950 - 1700 MHz, Composite Power 0dBm / -30dBm<br>RxIF: Type-F, 950 - 2150MHz, Composite Power -5dBm / -65dBm<br>10MHz IFL BUC reference |
| **Available BUC Power (IFL)** | +24V, 1.5A (max) (65W external PSU) - *X1, X1-Ku/C, and X1-HSO*<br>+24V, 2.1A (max) (90W external PSU) - *X1-Ku/C* |
| **Available LNB Power (IFL)** | +24VDC, 300mA (max), 22kHz DiSEqC tone |
| **Data Interfaces** | LAN: 10/100 Ethernet<br>Web-based configuration via Ethernet port |
| **Protocols Supported** | TCP, UDP, ICMP, NAT/PAT*, DHCP, Local DNS Caching, cRTP* |
| **Security** | AES-256 Link Encryption* (optional) |
| **Traffic Engineering** | QoS (Priority Queuing, Strict Priority Queuing, WFQ); Application-based QoS; Configurable Packet Classifier; CIR (Static and Dynamic), Minimum CIR, Idle/Dormant Min IR |
| **Other Features** | Built-in Automatic Uplink Power Control, Frequency and Timing Control, Authentication |

## Mechanical/ Environmental

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|---|---|
| **Size** | 9 x 6.8 x 1.8 inches (22.9 x 17.3 x 4.6 cm) |
| **Weight** | 1.8 lbs (0.82 kg) |
| **Operating Temperature** | 65W External PSU:<br>0˚ to +50˚C (32˚ to +122˚F) with up to 53W max power consumption<br>0˚ to +40˚C (32˚ to +104˚F) with up to 65W max power consumption<br>90W External PSU:<br>0˚ to +50˚C (32˚ to +122˚F) with up to 75W max power consumption<br>0˚ to +40˚C (32˚ to +104˚F) with up to 90W max power consumption |
| **Humidity** | 5% - 92% non-condensing humidity |
| **Input Voltage** | 100-240 VAC Single Phase, 50-60 Hz |
| **Certification** | FCC, CE, TUV, and RoHS compliant |

* iDX 3.3.0 and above

**TOLL FREE 1-888-989-8199**