Evolution X1 Outdoor
Satellite Router

Cost-effective remote bundle ideal for large-scale networks for SCADA, femtocells and pipeline monitoring. The remote features DVB-S2/ACM and Adaptive TDMA, routing, VLAN functionality, QoS, optional AES encryption and is embedded in a IP67 weatherproof enclosure enabling an extended temperature range, passive cooling and multiple power options, including DC.

Network Configuration

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

FEC	Downstream: LDPC, 1/4 - 8/9 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

SatCom Interfaces	TxIF: Type-F, 950 - 1700 MHz, Composite Power 0dBm / -30dBm RxIF: Type-F, 950 - 2150MHz, Composite Power -5dBm / -65dBm
Available BUC Power (IFL)	+24V, 1.5A (max)
Available LNB Power (IFL)	+24VDC, 300mA (max), 22kHz DiSEqC tone
Data Interfaces	LAN: 10/100 Ethernet 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

Size	10.25 x 10 x 3 inches (26 x 25.4 x 7.6 cm)
Weight	5.0 lbs (2.27 kg)
Operating Temperature	-40° to 60°C (-40° to 140°F) at Sea Level
Humidity	100% condensing humidity
Immersion	IP67/NEMA 6
Input Voltage	100-240 VAC to 24 VDC; 12-36 VDC to 24 VDC; ±36-76 VDC (±48 VDC nominal) to 24 VDC
Certification	FCC, CE, TUV, and RoHS compliant

iDX 3.3.0 and above

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