Evolution X1
Satellite Router

Cost-effective remote bundle ideal for large, narrowband networks for SCADA, Point of Sale and ATM applications. The remote features DVB-S2/ACM and TDMA, basic routing, VLAN functionality and QoS. The bundle also includes a highly efficient BUC and LNB.

Network Configuration

Network Topology	Star (DVB-S2/ACM downstream + Multi Frequency D-TDMA upstream)
Modulation	Downstream: QPSK, 8PSK, 16APSK ; Upstream: BPSK, QPSK, 8PSK
Maximum Rates Supported	Rate / Downstream (TDM) / Upstream (D-TDMA) Symbol rate / 1 - 45 Msps / 128 ksps – 2 Msps Info rate / Up to 160 Mbps / Up to 4.8 Mbps The processing capability of an individual remote will be less than the stated maximum carrier size
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, 25W max. supporting BUCs up to 3W (60W external PSU)
Available LNB Power (IFL)	+24VDC, 22KHz DiSEqC tone
Data Interfaces	LAN: 10/100 Ethernet Web-based configuration via Ethernet port
Protocols Supported	TCP, UDP, ICMP, DHCP, Local DNS Caching
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, Remote Lock (to network)

Mechanical/ Environmental

Size	9" x 6.8" x 1.8" in
Weight	2.0 lbs (0.91 Kg)
Operating Temperature	0° to 50°C (+32° to 122°F) at Sea Level
Humidity	5% - 92% non-condensing humidity
Input Voltage	100-240 VAC Single Phase, 47-63 Hz, 1.4A max.
Radio Standards	EN 301-428v1.3.1 – Ku-Band System Level Specifications EN 301-443v1.3.1 – C-Band System Level Specifications
Safety Standards	Complies with IEC 60950, EN 60950, UL 60950-1, CSA C222 NO.60950-1-03
Emission Standard	Complies with EN 55022 Class B, FCC Part 15 Class B, EN 61000-3-2, EN 61000-3-3
EMC/Immunity Standard	Complies with EN55024, EN301-489-1, EN301-489-12, EN61000-4-2, EN61000-4-3, EN61000-4-4, EN61000-4-5, EN 61000-4-6, EN61000-4-11
Certification	FCC, CE and RoHS compliant

Bundled ODU/ Antenna

BUC	Ku-band* 1.5W or 3W universal BUCs (13.75 – 14.50 GHz)
LNB	Ku-band* universal PLL (multiple sub-bands)
Antenna	Ku-band* 75cm or larger antenna

* *contact Sales for frequencies other than Ku-band*