

X7 Series Satellite Router

Embedded Computing Remote

Model: X7-EC



The X7-EC is a new variant of iDirect's popular X7 satellite remote enhanced with embedded computing technology. The X7-EC combines standard iDirect X7 features with extra processing power and memory to run value-added software without impacting satellite communication performance. Customers license supported applications on the X7-EC to customize the remote, creating more seamless delivery of services to the network edge. Consolidating these enhanced capabilities into a 1U rack-mounted form factor creates an ideal enterprise class solution.

Network Configuration

Network Topology	Star	
	<u>Downstream: DVB-S2</u>	<u>Upstream: ATDMA</u>
Modulation	QPSK, 8PSK, 16APSK, 32APSK	SS-BPSK, BPSK, QPSK, 8PSK
FEC	LDPC, 1/4 - 8/9	2D 16-State, 1/2 - 6/7
Max. Symbol Rate	1 - 45 Msps	128 ksps - 7.5 Msps
Max. Info Rate	149.7 Mbps	19.2 Mbps
Max. IP Data Rate	59.2 Mbps	16 Mbps
Spread Spectrum (Max Rate Mcps)		Up to 7.5 Mcps Spreading Factors: 2, 4, 8
<i>Max rates are achieved under optimal conditions.</i>		

Embedded Computing

Processor	Intel® Atom™ family, 64-bit, 8 core, 2.4 GHz clock speed
Memory	16 GB RAM, 120 GB solid state hard drive

Interfaces

SatCom Interfaces	TxIF: Type-F, 950 - 1950 MHz, Composite Power -35 to +3 dBm Rx1/Rx2 IF: Type-F, 950 - 2150 MHz, -5 dBm (max) composite / -130+10*Log10(Sym rate) dBm (min) single carrier 10MHz/50MHz IFL BUC reference	
Tx Out	<i>Available BUC Power (IFL):</i>	+24 V @ 4.9 A (117W Max.)
Rx1/Rx2 In	<i>Available LNB Power (IFL):</i>	+19 V (Nominal) @ 0.5 A
	<i>LNB Signaling:</i>	22 KHz tone On/Off; 13 V-18 V
Data Interfaces	LAN: Six (6) 10/100 Ethernet ports, 802.1q VLAN Two (2) 10/100/1000 Gigabit Ethernet ports RS-232: RJ45 (X7 Console connection), RJ45 Router Console (Cisco pinout) RS-422: N/A	
Security	AES Link Encryption (256-bit) (optional)	

Mechanical/Environmental

Size	W 17.5 in (44.5 cm) x D 18 in (45.7 cm) x H 1.75 in (4.45 cm)
Weight	14.1 lbs. (6.4 kg)
Operating Temperature	0° to +50°C (32° to +122°F) at Sea Level with temperature gradient of 1°C per 1 min
Humidity	90% non-condensing humidity
Input Voltage	Two Power Variants: 100–240 VAC Auto-Ranging or 36–76 VDC
Certifications	FCC, CE, TUV, and RoHS compliant