

iQ LTE Series Satellite Modem



The iQ LTE is part of ST Engineering iDirect's DVB-S2/S2X modem series with a software-defined architecture for maximum flexibility and expansion. Combined with an internal 4G-LTE modem this first in class modem delivers reliable and persistent communications across a wide range of use cases. Featuring an integrated Cradlepoint LTE cellular modem, the solution offers fully automated VSAT/LTE failover and failback, WAN link affinity steering, advanced VPN connectivity, and an available SD-WAN option for robust enterprise grade communications.

Ideal for enterprise, maritime, and land mobility applications, the single box, converged solution combines high-performance iQ series features with an integrated LTE cellular modem for robust mobility connectivity reaching throughputs over 1000 Mbps on a cellular network and over 300 Mbps on a VSAT network, when being used in L2oS mode. Its licensable features enable the service provider to scale easily by adding more inbound throughput capabilities to the modem avoiding costly site visits or remote swap outs. The satellite modem will reach high return throughput capabilities due to high Msps rate (up to 15 Msps) on the inbound and supports higher power BUCs and OpenAMIP mobility. The modem's ease of installation allows service providers to deploy their services quickly, in a cost-effective way.

Markets

- Enterprise
- SME
- Maritime
- Disaster Response
- Oil & Gas
- Land Mobility

Main Features:

- VSAT/LTE failover and failback
- WAN link affinity steering
- Advanced VPN connectivity
- SD-WAN Option
- Dual-SIM card slot
- Multicast Overlay
- DVB-S2 (up to 45 Msps) / DVB-S2X (up to 100 Msps) outbound
- Supports a full range of DVB-S2X MODCODS up to 256APSK
- Adaptive TDMA up to 15 Msps, 16QAM
- Security features with 256-bit AES Link Encryption
- OpenAMIP compatibility for ease of integration

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VSAT & LTE Support

Network Topology	Rx		Tx
	DVB-S2X*/ACM	DVB-S2*/ACM	Adaptive TDMA
Modulation	QPSK, 8PSK, 16APSK to 256APSK	QPSK, 8PSK, 16APSK, 32APSK	SS-BPSK, BPSK, QPSK, 8PSK, 16QAM*
FEC	Refer to the LBA guide	LDPC 1/4 - 8/9	2D 16-State 1/2 - 6/7
Symbol Rates	5 Msps to 100 Msps	1 Msps to 45 Msps	128 ksps to 15 Msps
Spread Spectrum*			SF: 2,4,8; Up to 7.5 Mcps
LTE WAN Features	Failover/Failback, Load Balancing, Traffic steering w/ WAN Affinity, IP passthrough, QoS (DSCP and Priority Queuing)		
LTE Specifications	Dual SIM w/ Auto-carrier selection, DC-HSPA+ failover		
Model	iQ LTE	iQ LTE+	iQ LTE Pro
Modem	IBR650C-150M	IBR900-600M	IBR900-1200M***
Throughput	150 Mbps	600 Mbps	1200 Mbps
Region	TBD per region**	Available in most	North America Only - FirstNet Ready
Wifi Option	none	Wifi + GPS	Wifi + GPS

Modem Interfaces

Tx Interface

Connector	F-Type 75 Ohm
Frequency range L-band	950 - 2150 MHz
TX level	Pmax of +0 dBm to Pmin of -35dBm

Rx Interface

Connector	F-Type 75 Ohm
Frequency range L-band	950-2150 MHz

Cellular Interface

SMA, 50 Ohm
Dual-SIM card slot

Data Interface

LAN: One 10/100/1000 Mbps Router Ethernet Port for VSAT/LTE combined feature

Management Interface

LAN: One 10/100/1000 Mbps Ethernet
RJ 45 Console

Management

LTE Management

Cradlepoint NetCloud Mngr, Web UI, API, CLI, SNMP, SMS control

Protocols Supported

TCP, UDP, ICMP, DHCP, NAT/PAT, DNS, ROHCv2, RIPv2, IGMPv2, IGMPv3, ICMP, IPv4 (IPv6 over L2oS), L3

Security

256-bit AES Link Encryption

Mechanical and Environmental

Size	W 44.5 cm x D 32 cm x H 4.45 cm (W 17.5 in x 12.6 in x 1.75 in)
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Weight	4.5 kg (10 lbs)
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Temperature:

Operating	0° to +60°C (32° to +140°F)
Storage	-40° to +85°C (-40° to +185°F)

Humidity:

Operating	10 - 90% non-condensing
Storage	5 - 95% non-condensing

Power Supply

Input Voltage	100-240VAC, Auto-Ranging 36-76VDC (availability for DC pwr TBD)
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*Feature is release and platform dependent

**Regional Certification per demand

***iQ LTE Pro model can include either IBR900-1200M or IBR-1200M-B