

# 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 (optional)
- 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
<b>Modulation</b>	QPSK, 8PSK, 16APSK to 256APSK	QPSK, 8PSK, 16APSK, 32APSK
<b>FEC</b>	<i>Refer to the LBA guide</i>	LDPC 1/4 - 8/9
<b>Symbol Rates</b>	5 Msps to 100 Msps	1 Msps to 45 Msps
<b>Spread Spectrum*</b>		SF: 2,4,8; Up to 7.5 Mcps
<b>LTE WAN Features</b>	Failover/Failback, Load Balancing, Traffic steering w/ WAN Affinity, IP passthrough, QoS (DSCP and Priority Queuing)	
<b>LTE Specifications</b>	Dual SIM w/ Auto-carrier selection, DC-HSPA+ failover	
<b>Model</b>	<b>iQ LTE</b>	<b>iQ LTE+</b>
<b>Modem</b>	IBR650C-150M	IBR900-600M
<b>Throughput</b>	150 Mbps	600 Mbps
<b>Region</b>	TBD per region**	Available in most
<b>Wifi Option</b>	none	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 / Management Interface

LAN: Two 10/100/1000 Mbps Ethernet Ports
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, VRRP, BGP

### Security

256-bit AES Link Encryption (optional)

## 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