

iQ 200 Board Satellite Modem



The iQ 200 Modem Board is part of ST Engineering iDirect's DVB-S2/S2X modem series with a software-defined architecture for maximum flexibility and expansion. The series is compatible with both Evolution® and Velocity®, features high performance and efficiency for fixed and mobility networks so you can effortlessly meet demanding service levels and build out large networks with greater speed and reduced costs.

The iQ 200 modem series is ideal for enterprise, cellular backhaul, land mobile and maritime applications combining high-performance iQ series features with mobility. Designed to integrate into complete terminals the iQ 200 Board combines high-performance iQ series features with OpenAMIP mobility. OpenAMIP is an IP based protocol that facilitates the exchange of information between an Antenna Controller Unit and a satellite modem ensuring a seamless integration. The iQ 200 Board enables the service integrator to provide a terminal that can easily scale by adding more inbound throughput capabilities to the modem.

The iQ 200 Board is also available in a 1RU rackmount chassis.

VELOCITY

EVOLUTION

Markets

Maritime
Enterprise
SME
Broadband
Land Mobility

Main Features:

- DVB-S2 (up to 45 Msps) / DVB-S2X (up to 119 Msps) outbound
- Supports a full range of DVB-S2X MODCODS up to 256APSK
- Adaptive TDMA up to 15 Msps, 16QAM
- Ideal for both fixed and mobility applications
- Security features with *256-bit AES Link Encryption (optional) and *X.509 Remote Authentication
- 10 and 50 MHz reference for BUC compatibility
- OpenAMIP compatibility for ease of integration
- Layer 2 and Layer 3 optimized



Network Configuration

Network Topology	Rx		Tx
	DVB-S2X*/ACM	DVB-S2*/ACM	Adaptive TDMA
Modulation	QPSK, 8PSK, 16APSK, 32APSK, 64APSK, 128APSK, 256 APSK	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 119 Msps	1 Msps to 45 Msps	128 kbps to 15 Msps*
Spread Spectrum*			SF: 2,4,8; Up to 7.5 Mcps

Modem Interfaces

Tx Interface

Connector	F-Type 75 Ohm
Frequency range L-band	950-2400 MHz
Tx level	Pmax of +0 dBm to Pmin of -35dBm
BUC power supply	+24V, 2.3A(max) @ connector Tx out
BUC reference	10/50 MHz

Rx Interface

Connector	F-Type 75 Ohm
Frequency	950-2150 MHz
LNB power supply	13 & 18VDC @ 0.5A @ connector Rx in
LNB LO selection	22 kHz on/off

Data/Management Interface

LAN: Two 10/100/1000 Mbps Ethernet
RJ-45: console

* Feature is release and platform dependent

Please note that the integrator is responsible for all certs. at the terminal level.

Management

Protocols Supported

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

Security

256-bit AES Link Encryption (optional)

*X.509 Remote Authentication

Mechanical and Environmental

Size W 13.7 cm x D 10.5 cm x H 1.8 cm
(W 5.41 in x D 4.13 in x H 0.71 in)

Weight 0.14 kg (0.3 lbs)

Refer to integration guide for thermal design guidelines

Power Supply

Input Voltage	24V +/- 5%
Power Consumption	~15 Watts