

## IMTRAN CQ QUAD DVB-ASI MODULES IM-CQ-DVB



The IPITEK IMTRAN CQ Quad DVB-ASI modules transmit and receive up to 4 DVB-ASI transport streams via the CQ-5 or the CQ-10 digital transport system. The development of this board is intended to give Cable Operators and Broadcasters greater flexibility in providing transport for their signals by providing a platform that is capable of combining Baseband and HDTV signals onto one fiber.

The CQ-5 allows the use of bi-directional or Add/Drop/Pass Baseband and HD services by providing 5 service slots for each direction of transmission. In addition to Baseband and HD the CQ-5 offers T3/E3, T1/E1, Ethernet and RS232 transport supplying one of the most flexible small transport systems in the industry. The the CQ-10 provides greater capacity in a single direction by providing 10 services slots for any combination of Baseband and HD transport.

A typical HDTV signal is compressed by the Broadcaster into a 19.4 Mb/s MPEG2 format for transmission to transmitters or Cable Head offices. The typical transmission interface for the MSOs is in the form of DVB-ASI. The Asynchronous Serial Interface (ASI) is a standard developed by the European Digital Video Broadcasting (DVB) standards association. The DVB-ASI standard is intended to provide simple transport and

### FEATURES

- Supports up to 4 individual DVB-ASI channels per module
- Individual port settings are configurable to match the data rate of the payload
- Supports 40 HDTV Uni-directional channels in a single CQ-10 chassis
- Supports 20 HDTV channels in each direction (total of 40) in a single CQ-5 chassis
- Transparent coding with clock reconstruction
- Hot swappable

interconnection of MPEG-2 streams between different manufacturer's equipment.

Quad DVB-ASI modules allow customers to economically transport MPEG-2 streams over a fiber network. The standards-based DVB-ASI/MPEG-2 interface makes the CQ product line interoperable with MPEG encoders, digital satellite receivers, MPEG-2 multiplexers, VOD servers and QPSK/QAM modulators.

Each DVB-ASI channel can transport 1 MPEG-2 Single Program Transport Stream (SPTS) or Multi-Program Transport Stream (MPTS), each with a different data rate as long as the aggregate payload data rate does not exceed 122 Mb/s when used in the 125 Mb/s mode or 97 Mb/s when used in the 100 Mb/s mode. For the PAL version of the CQ system the total aggregate data rate can be up to 150Mb/s

The aggregate bandwidth for the module is configurable for either 100 Mb/s or 125 MB/s. The module can also be deployed for single, or up to 4 channels, operation, where the aggregate bandwidth is shared among the enabled channels.

The CQ-5 or CQ-10 can be managed and monitored remotely from a central location via IPITEK's NodeWizard Network Management System.

## N. AMERICAN AND EUROPEAN QAM DATA RATE MAPPING

	256 QAM 38.8 Mb/s (N. America)	64 QAM 28 Mb/s (N. America)	256 QAM 51 Mb/s (Europe)	64 QAM 38 Mb/s (Europe)	8-VSB 19.4 Mb/s
Usable Ports per Card <i>Bandwidth on card slot</i>					
100 Mb/s (NTSC Mux)	2 ports	3 ports	1 port	2 ports	4 ports
125 Mb/s (NTSC Mux)	3 ports	4 ports	2 ports	3 ports	4 ports
120 Mb/s (PAL Mux)	3 ports	4 ports	2 ports	3 ports	4 ports
150 Mb/s (PAL Mux)	3 ports	4 ports	2 ports	3 ports	4 ports
Max Circuits per Chassis <sup>1</sup> <i>Bandwidth on card slot</i>					
100 Mb/s (NTSC Mux)	20	30	10	20	40
125 Mb/s (NTSC Mux)	24	32	20	24	32
120 Mb/s (PAL Mux)	30	40	20	30	40
150 Mb/s (PAL Mux)	24	32	24	24	32

<sup>1</sup>For CQ-5 half the circuits are in one direction and half are in the reverse direction. CQ-10 has all circuits transmitted in same direction

### SPECIFICATIONS

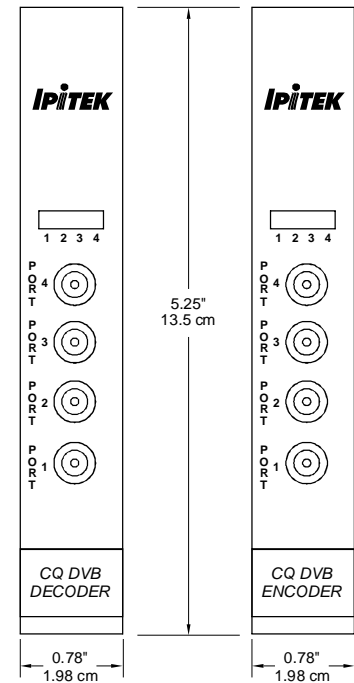
#### DVB-ASI Interface

Number of ports:	4
Connector:	BNC, 75 ohm
Baud Rate:	270 Mb/s ±100ppm
Cable Length:	200 meters
ASI Input:	Burst Packet Mode or Spaced Byte Mode, auto-sensing
MPEG-2 Input:	188 Byte or 188+16 Byte, auto-sensing
ASI Output:	Burst Packet Mode or Spaced Byte Mode, configurable
MPEG-2 Output:	188 Byte or 188+16 Byte
Standard:	CENELEC EN 50083-9

#### Environmental

Operating Temperature:	0° to 50° C
Storage Temperature:	-55° to +75°C
Operating Humidity:	to 90%, non-condensing
Dimensions:	5.25"H x 1.2" W x 8.58"D (13.5cm x 3.1cm x 22 cm)

### MECHANICAL



### ORDERING INFORMATION

<b>IM-CQ</b>	<b>-</b>	<b>DVB</b>	<b>-</b>	<b>XX</b>	<b>-</b>	<b>XXXX</b>
<i>IMTRAN</i> <b>CQ COMPATIBLE</b>		Module <b>Programmable Quad DVB-ASI Module</b>		Type DE = Decoder module EN = Encoder module		Chassis <b>08CH</b> = 8-bit chassis <b>10CH</b> = 10-bit chassis



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IPITEK reserves the right to modify product specifications without prior notification.