



### FEATURES

- Uncompressed Digital Video
- Eight 10-bit or Ten 8-bit Channels
- Quad DVB-ASI
- Accepts T1, E1, E3, DS-3, RS-232 RS-449 and Ethernet Modules
- CWDM Wavelengths Available
- Redundant Power Supplies
- Modular Design

The IMTRAN® CQ-10 is a complete system for the digital conversion, multiplexing and optical transmission of multiple uncompressed video, audio, telephony and data signals. This system is fully modular for easy configuration, field upgrades and maintenance.

The CQ-10 is intended for unidirectional, point-to-point or multipoint applications. A CQ-10 chassis can be configured as either a transmit or receive terminal. One CQ-10 rack-mount chassis houses plug-in modules for 10 signal channels, an optical transmitter/multiplexer or optical receiver/demultiplexer, and power supplies. The entire unit occupies only 3U of 19" or 23" rack space.

At the source, each IMTRAN analog-to-digital converter module accepts one composite video signal (video with a 4.5 MHz BTSC subcarrier), up to four audio signals and one RS-232 data channel. These inputs are converted to a digital format, using either 8-bit or 10-bit quantization.

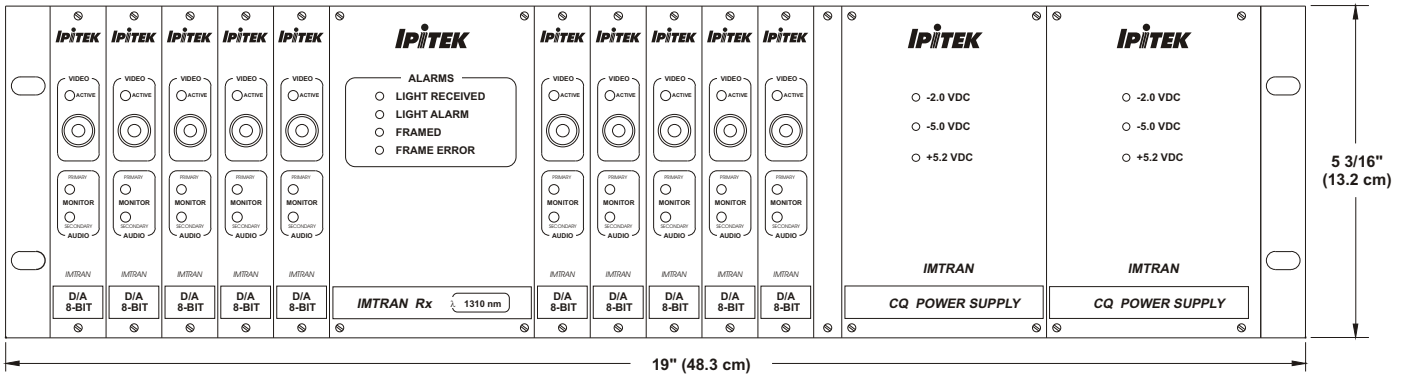
The data are then time division multiplexed (TDM) with additional digitized data channels into a serial data stream for optical transmission with a built-in IPITEK TOPLINC® II laser transmitter module operating at 1.25 Gb/s.

The lightwave signal is transmitted over single mode fiber to one or more CQ-10 receivers or CQ-10RT transceivers. At the receive end, a TOPLINC II optical receiver module converts the pulse code modulated (PCM) signal into a serial electrical signal, which is demultiplexed and converted back to analog composite video and audio outputs.

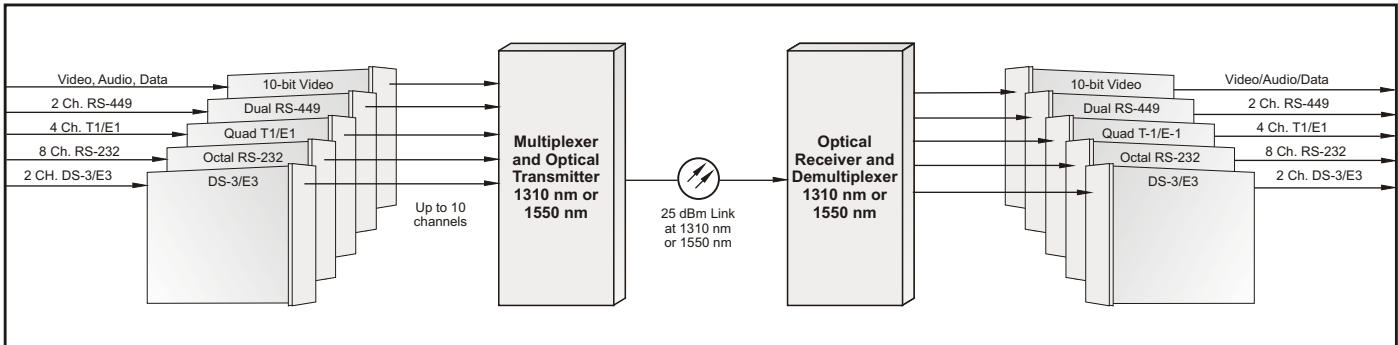
The system's modular design allows you to configure a chassis as either a transmitter or a receiver. Dual optics, at 1310 nm or 1550 nm, and a redundant power supply are optional. The system is extremely flexible, allowing you to combine a variety of converter modules, such as dual RS-449 (Ethernet channels), quad T1/E1, dual DS-3/E3, octal RS-232 or a 10 Mb/s Ethernet Bridge in one CQ-10 chassis. In addition, the CQ-10 offers Quad DVB-ASI transport, typically used for HDTV transmission.

# MECHANICAL

## RECEIVER FRONT



# OPERATION



# SPECIFICATIONS

### Optical

Laser Output Power: 0 dBm  
 Receiver Sensitivity: -25 dBm  
 Optical Connector: FC/PC  
 Optical Fiber: Single mode  
 Wavelength: 1310 nm or 1550 nm  
 CWDM Ch#47: 1470 nm  
 CWDM Ch#49: 1490 nm  
 CWDM Ch#51: 1510 nm  
 CWDM Ch#53: 1530 nm  
 CWDM Ch#55: 1550 nm  
 CWDM Ch#57: 1570 nm  
 CWDM Ch#59: 1590 nm  
 CWDM Ch#61: 1610 nm

Optical Connector: FC/PC  
 Transmission Rate: 1.25 Gb/s  
 Uncompressed Video  
 Ch/Fiber per Wavelength: Ten 8-bit,  $\geq 56$  dB SNR  
 Eight 10-bit,  $\geq 67$  dB SNR

### Environmental

Operating Temperature: 0° - 50° C  
 Operating Humidity: 85% non-condensing  
 Storage: -55° - 75°C, 24 hrs.  
 Power: 110/220 VAC  
 Optional Power: -48 VDC  
 Mounting: 19" rack (23" optional)

# ORDERING INFORMATION

(Please specify a chassis, power supply and transmitter/receiver for each CQ-10 system)

IM	-	CQ10	-	XXX	-	XX	-	F	-	P
IMTRAN		CQ-10		Type		Wavelength		Connector		Polish
				STX = Single Transmitter		13 = 1310 nm		F = FC		P = PC
				DTX = Dual Transmitter		15 = 1550 nm				
				SRX = Single Receiver		XX = CWDM Ch# (47/49/51/53/55/57/59/61)				
				DRX = Dual Receiver						

IM	-	CQ10	-	XXXX		IM	-	CQ10	-	PS	-	X	-	XX
IMTRAN		CQ-10		Type		IMTRAN		CQ-10		Type		Input Power		Power Cord
				CH19 = 19" Chassis						Power Supply		1 = 110/220 VAC		NA = N. America
				CH23 = 23" Chassis								4 = -48 VDC		EU = Europe
														UK = U.K.
														SW = Switzerland
														CH = China



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

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