IPITEK

INTEGRATED PHOTONICS TECHNOLOGY

ISO 9001 Registered

DIGITAL TRANSMISSION SYSTEM
IMTRAN® CQ-5

FEATURES & APPLICATIONS

- **8 or 10-bit Digital Video with Audio and Data over Fiber**
- **Quad DVB-ASI**
- **Transport options for NTSC, PAL-B, PAL-D or SECAM video**
- **Full Duplex Operation at any site**
- **CWDM Wavelengths Available**
- **Multiple site drop and insert capabilities**
- **Accepts T1/E1, DS-3/E-3, RS-232 or 449 and Ethernet modules**

The IMTRAN CQ-5 is a modular system for the conversion, multiplexing and optical transmission of full motion uncompressed digital video signals.

A complete CQ-5 system can send and receive up to five video channels, twenty audio channels and five RS-232 channels over one multimode or single mode fiber at 600 Mb/s (720 Mb/s with PAL/SECAM option). If additional signals need to be transmitted over a single fiber, the unit can be ordered with standard CWDM-wavelength lasers. Each of the five transmit or receive slots can be configured for high capacity data channels in place of the audio/video module. The CQ-5 can be configured as a transmitter, receiver or transceiver, which enables the user to have one interface for bi-directional video, audio and data.

At the source, the 8-bit or 10-bit A/D converter module accepts baseband or composite video and four audio signals for conversion to a digital format. Each channel is Time-Division Multiplexed (TDM) with other channels into a serial data stream suitable for transmission. The lightwave signal is then transmitted over fiber to one or more receive sites. At the receive end, an optical receiver module converts the modulated lightwave signal to a serial electrical sig-
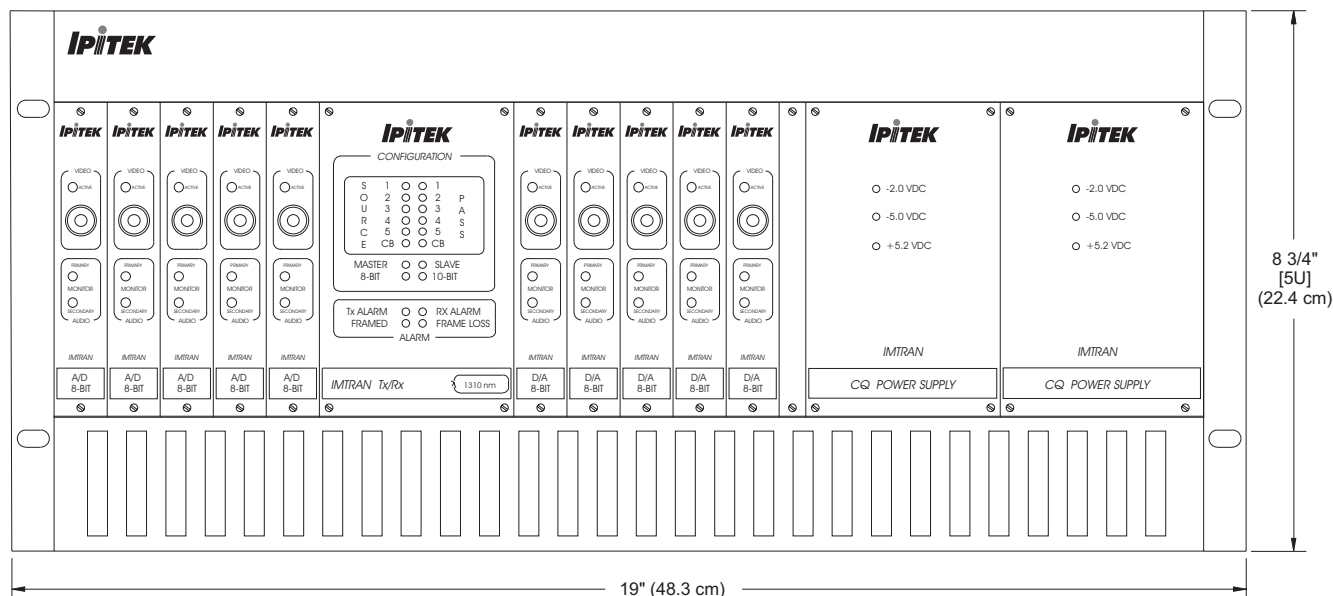
nal, which is demultiplexed and converted back to analog format for display, recording or format conversion. The multiplexer module can be switch-configured or remotely controlled through a Node Control Processor (NCP) to add, drop or pass any channel.

IMTRAN CQ-5 is the ideal solution for applications which require transmission of full performance video. These include the use of CQ-5 to carry signals originated at remote locations, or anyplace where live video origination requires transport to a main location. The system may also be used for high quality distance learning systems and provides the flexibility necessary to receive and originate video or other signals from any site in the network. Because CQ-5 is digital, it can also be used to provide secure communications for sensitive video materials. In addition, the CQ-5 offers Quad DVB-ASI transport, typically used for HDTV transmission.

CQ-5 systems feature great flexibility. In addition to video, the system allows users to combine a variety of optional converter modules for transmission of T1/E1, DS-3/E-3, RS-232/449 and 10 Mb/s Ethernet in one CQ-5 chassis.

MECHANICAL

8 3/4"
[5U]
(22.4 cm)

19" (48.3 cm)

SPECIFICATIONS

Optical

Output Power:	0 dBm
Receiver Sensitivity:	-25 dBm
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
Fiber:	Single mode/multimode

Baud Rate:	600 Mb/s (720 Mb/s PAL-D SECAM)
Uncompressed Video	
Channels per Fiber:	5
SNR Performance:	$\geq$56 dB (8-bit video)
	$\geq$67 dB (10-bit video)

Environmental

Operating Temperature:	0^0 to 40^0 C
Operating Humidity:	85% non-condensing
Storage:	-55^0 to 75^0C, 24 hrs.
Power:	110/220 VAC or -48 VDC; 75 watts max.
Mounting:	19" or 23" rack

ORDERING INFORMATION

(Please specify chassis, power supply, baud rate and transmitter/receiver for each CQ-5 system)

IM	-	CQ5	-	X	-	TXRX	-	XX	-	F	-	P
IMTRAN		CQ-5		Baud Rate 6 = NTSC/PAL-B 7 = PAL-D/SECAM		Type Transceiver		**Wavelength** **13** = 1310 nm **15** = 1550 nm **XX** = CWDM Ch# (47/49/51/53/55/57/59/61)		**Connector** **F** = FC		**Polish** **P** = PC

IM	-	CQ5	-	XXXX
IMTRAN		CQ-5		**Type** **CH19** = 19" Chassis **CH23** = 23" Chassis

IM	-	CQ	-	PS	-	X	-	X
IMTRAN		CQ		Type Power Supply		**Input Power** **1** = 110/220 VAC **4** = -48 VDC		**Power Cord** **1** = N. America **2** = Europe **3** = U.K. **4** = Switzerland **5** = China

IPITEK