

# **DIGITAL TRANSMISSION SYSTEM**

IMTRAN® CQ-10RT



The IMTRAN® CQ-10RT is a complete transceiver system for the transmission of multiple uncompressed video, audio, telephony and data signals. This 19" or 23" rack mount unit is fully modular for easy configuration and field maintenance.

The CQ-10RT is intended for bidirectional applications in point-to-point, multipoint or redundant ring networks. One CQ-10RT rack mount chassis houses plug-in modules for ten signal channels, an optical transmitter/multiplexer, an optical receiver/demultiplexer, a remotely controllable drop/add/pass unit and up to four power supplies.

At the CQ-10RT input port, incoming signals are digitized, time division multiplexed (TDM) with additional digitized channels and serialized for optical transmission at 1.25 Gb/s. At a CQ-10RT transceiver or CQ-10 receiver, the incoming lightwave signal is converted to electrical data, demultiplexed and decoded back to analog signal outputs.

## FEATURES & BENEFITS

- Uncompressed Digital Video
- Eight 10-bit or Ten 8-bit Channels
- Accepts T1, E1, E3, DS-3, RS-232, Ethernet and RS-449 Modules
- Drop/Add/Pass Functions
- Dual Redundant Power Supplies

### **APPLICATIONS**

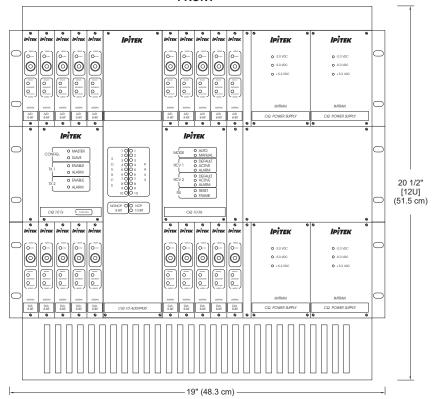
- CATV Supertrunks
- Microwave Alternative
- Live Video Origination
- Distance Learning

The CQ-10RT can simultaneously transmit and receive up to eight 10-bit video channels or ten 8-bit video channels, each with up to 4 channels of audio. Any of these video channels can be replaced with quad T1/E1, dual DS-3/E3, octal RS-232, dual RS-449 or 10 Mb/s ethernet modules, all of which may be hot-swapped into the chassis. Optional dual optical transmitters and receivers, at either 1310 nm or 1550 nm, with automatic fiber switchover maintain very high link reliability. Also, optional dual redundant, load-sharing power supplies protect against system downtime. System control and status monitoring can be done from a remote site.

The drop/add/pass unit provides network functions and multiple, transparent, digital repeats. A CQ-10RT node can "drop" any or all of the signal channels for decoding and/or retransmission. New signal channels can also be "added" in any vacant channel slots for transmission. In addition, it can act as a repeater and "pass" signals to the next node.

## **MECHANICAL**

#### **FRONT**



## **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

Transmission Rate: 1.25 Gb/s

Uncompressed Video

Channels/Fiber per Wavelength: Ten 8-bit, ≥ 56 dB SNR

Eight 10-bit, ≥ 67 dB SNR

# Mounting:

**Environmental** 

Optional Power:

Storage:

Power:

Operating Temperature:

Operating Humidity:

# III 10-bit, ≥ 07 db 5ivit

ORDERING INFORMATION
(Please specify chassis, power supply, drop/add/pass and transmitter/receiver for each CQ-10 system)

IM - CQ10RT - XXX - XX - P

IMTRAN Type Modules Wavelength Connector Polish

Type Modules Wavelength
CQ-10 Receiver/Transmitter STX = Single Transmitter 13 = 1310 nm
DTX = Dual Transmitter 15 = 1550 nm

SRX = Single Receiver DRX = Dual Receiver DAP = Drop/Add/Pass

IM - CQ10RT - XXXX

CQ-10RT

Type IMTRAN
CH19 = 19" Chassis

CH23 = 23" Chassis

IM - CQ10RT - PS

CQ-10RT

 Type
 Input Power

 Power
 1 = 110/220 VAC

 Supply
 4 = -48 VDC

0° - 50° C

-48 VDC

F = FC

X

85% non-condensing

19" rack (23" optional)

-55° - 75°C, 24 hrs.

110/220 VAC

Power Cord 1 = N. America 2 = Europe

**3** = U.K. **4** = Switzerland **5** = China

X

P = PC

**IP**ITEK

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