

V/A/A Videoconference Transceiver Model 2864

The Force, Incorporated Model 2864 inFOBiway® Fiber Optic Videoconference Transceiver offers high-quality, two-way, full-motion video, and stereo audio (V/A/A) signal transmission and is ideal for videoconference applications in metropolitan area network and campus environments. The transceiver operates over single-mode optical fiber with single-fiber and dual-fiber options. Model 2864 can also be used with multimode fiber in the two-fiber link.

The 2864 accepts direct baseband V/A/A inputs and provides baseband V/A/A outputs, ensuring compatibility with all standard cameras, monitors, and audio sources. Self-test features include transmitter, receiver, and "closed-loop" indicator LED's for verification of



continuity in both directions. In addition to direct baseband outputs for central office or headend monitoring of customer premise V/A/A signals, the 2864 provides composite inputs and outputs. Composite I/O at the switch side of the link allows use of a single port to route video, audio, and data signals through a standard video routing switch.

When two 2864 transceivers are used, a cost-effective point-to-point link can be established. When multiple 2864 transceivers are teamed with a video routing switch, a cost-effective switched videoconference network can be implemented controlling delivery of high-quality V/A/A signals to and from a Telco central office, CATV headend, or centralized CODEC "gateway" location to numerous distant customer premises at distances of up to 25 miles on one single-mode fiber.

Features

- Stand-alone, and 1RU Rack-mount Configurations
- Two-Way Full-Motion Video/Stereo Audio Transmission Over a Single Optical Fiber
- Direct Baseband Video and Stereo Audio Inputs and Outputs
- Balanced or Unbalanced Stereo Audio (User-selectable)
- Single-mode and Multimode Fiber Versions Available
- 0-20 dB Optical Loss Range
- Status Indicator LED's for Verification of Link Continuity
- Link Performance Certified with VM700A
- Tested and Certified by AT&T Bell Laboratories for Operation Over Lucent Technologies SYSTIMAX® SCS Premise Wiring Systems in Conjunction with Model 380 Adapters for UTP Cable

Applications

- Low-cost, 2-way Distribution/Contribution of A/V Signals to Multiple Remote Sites From A Central CODEC "Gateway" Location
- Metropolitan Area Network (MAN)
 Videoconferencing
- Campus Setting Videoconferencing
- Tele-classroom
- Electronic Magistrate/Judicial Arraignment Systems
- CATV Institutional Networks (I-Net's)

Specifications: @ 25°C Available through Multicom, Inc.

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| All Models | Min. | Тур. | Max. | Units |
|---|------|-----------------|------|--------------------|
| Required Fiber Bandwidth | 100 | | | MHz |
| Optical Sensitivity (Rx) | | -30 | | dBm |
| Optical Saturation (Rx) | +2 | | | dBm |
| Optical Loss Range | 0 | | 20 | dB |
| FM Carrier Frequency | 56 | 60 | 66 | MHz |
| Video Bandwidth (+1/-3 dB) | | 4.5 | | MHz |
| Video Low Frequency Response | | 10 | | Hz |
| Video I/O Impedance | | 75 | | Ohms |
| Video SNR (Revr Input=-24 dBm) | | 62 | | dB |
| Differential Gain Error | | 2.5 | 5.0 | % |
| Differential Phase Error | | 2.4 | 4 | ٥ |
| Nominal Video I/O Sync | 0.9 | 1.0 | 1.1 | Vsync-to- white |
| Nominal Output Levels (audio and video) | | Input Level ±20 | | |
| Audio Bandwidth (+1/-3 dB) | | 20 | | kHz |
| Audio Low Frequency Response | | 50 | | Hz |
| Audio Input Impedance (Single-ended) | 540 | 600 | 660 | Ohms |
| Audio Input Impedance (Single-ended) | 8 | 10 | 12.5 | kOhms |
| Audio Input Impedance (Differential) | | 600 | | Ohms |
| Audio Output Capability | 600 | | | Ohms |
| Nominal Audio I/O | | 2.8 | 6.0 | V _{P-P} |
| Audio Distortion | | 1.5 | 3.0 | % |
| Audio Modulation Deviation | | ±80 | | kHz |
| Audio SNR | 59 | 64 | | dB |
| Audio Channel 1 Carrier Frequency | | 6.0 | | MHz |
| Audio Channel 2 Carrier Frequency | | 6.8 | | MHz |
| Composite I/O Impedance | | 75 | | Ohms |
| Composite Bandwidth | | 12 | | MHz |
| Composite Low Frequency Response | | 10 | | Hz |
| 1310 nm Tx/1550 nm Rx Models | П | | | • |
| Transmitter Operating Wavelength | 1280 | 1310 | 1340 | nm |
| Spectral Width | | 2 | 6 | nm |
| Optical Output Power (Tx) | -7 | -6 | -5 | dBm |

| Receiver Operating Wavelength | | 1550 | | nm |
|---|------|-------------------------|------|-----------------|
| 1310 nm High Power Tx/1550 nm Rx Moo | dels | | | • |
| Transmitter Operating Wavelength | 1280 | 1310 | 1340 | nm |
| Spectral Width | | 2 | 6 | nm |
| Optical Output Power (Tx) | -4 | -3 | -2 | dBm |
| Receiver Operating Wavelength | | 1550 | | nm |
| 1550 nm Tx/1310 nm Rx Models | | | | • |
| Transmitter Operating Wavelength | 1520 | 1550 | 1580 | nm |
| Spectral Width | | 2 | 4 | nm |
| Optical Output Power (Tx) | -7 | -6 | -5 | dBm |
| Receiver Operating Wavelength | | 1310 | | nm |
| Model 2864XA and 2864XC Transceiver | • | | | |
| Power Supply Voltage | +13 | | +15 | V _{DC} |
| Power Supply Current | | 550 | | mA |
| Environmental and Physical Characterist | tics | | | |
| Operating Temperature Range | 0 | | +50 | °C |
| Humidity | 0 | | 90 | % |
| Dimensions: Stand-alone and 6RU Transceivers | 1 | 11.61 x 8.85 x 1.12 | | |
| | 294 | 294.81 x 224.79 x 28.45 | | |
| Dimensions: 1RU Transceiver | 1 | 19.00 x 8.85 x 1.72 | | |
| | 482 | 482.50 x 224.79 x 43.69 | | |