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Application
Note

AFI's Multi-Functional Series 91PxxxxxE Platform:
Analog Video, Ethernet, & Bi-directional Audio, Multi-Protocol
Data, Contact Closure



Overview

The AFI 91PxxxxxE product platform digitizes and transports one video channel, a 10/100Mb/s Fast Ethernet Channel supporting two Ethernet ports, optional two bidirectional audio channels, and up to four optional Multi-protocol Data or Contact Closure channels over a fiber link. All products are available for both multi-mode and single-mode applications.

The optional Multi-protocol Data or Contact Closure channels provide additional transport for any combination of bi-directional multi-protocol data (MPD) data or bi-directional contact closure. The MPD modules support RS232, RS485 2W/4W and RS422 and are protocol selectable using rear panel dipswitches. The Contact Modules utilize normally open (NO) dry contact relays as the default. Normally close (NC) relay option is available (consult factory)

The 91PxxxxxE product provides a combination of different connectors for customer connections. Video input and output is provided on a standard 75ohm BNC connector. Each 10/100 Ethernet port uses a standard RJ45 connector. A high-density 25 pin D-connector is used for the data or contact inputs, the data or contact-relay outputs and the audio input and output connections. To facilitate making connections to the D-connector, AFI provides an adapter board that performs a D-connector to terminal block conversion (see diagram in below).

Configuration Options

The simplest product configuration is the MT/RR-91PE (multi-mode) or MT/RR-91PE-SL (singlemode) which supports one channel of video and two 10/100 BaseTX Fast Ethernet ports. This product option is housed in single PCB card extrusion or rackcard assembly since an upper board is not required to support the option modules and audio channels.

The MT/RR-91P8E, (SL) supports one channel of video and two 10/100 BaseTX Fast Ethernet ports on the lower board in combination with 2 channels of audio which are provided on the upper board. The upper main board attaches to the lower board via an interface header connector. This product configuration is housed in a double PCB card extrusion or rackcard assembly. The audio channels are an option and are designated by the number 8 in the part number.

The MT/RR-91Pxxxx8E, (SL) supports one channel of video and two 10/100 BaseTX Fast Ethernet ports on the lower board. Two channels of audio and up to four optional MPD data or contact closure channels are supported on the upper board. This product configuration is also housed in a double PCB card extrusion or rackcard assembly. Below is a picture of the upper PCB which has 2 MPD data modules installed on the left side of the PCB.



