



ELCOMMTECH Corporation

1022M-ADT1-M1ST

Fiber Optic Digital 2 Ch. Audio & TTL Data Transmitter

Multimode

Single Fiber Operation

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Specifications

Audio Performance

Audio Input	600 Ohm or 10K, universal: balanced or unbalanced
Audio Input Levels	Up to +18 dBm
Audio Connector	3.5 mm stereo jack, 3 pos.
Frequency Response	10 Hz to 20 kHz(-3dB)
Signal-to-Noise Ratio	> 85 dB
Total Harmonic Distortion	< 0.1%

Optical Performance

Light Source	Laser (VCSEL)
Wavelength	850 nm
Optical Connector	ST
Multimode - Core Diameter	62.5 μ
Optical Power Output	-4 dBm (+/- 1 dBm)
Optical Serial Data Stream	up to 451.6 Mb/sec

Data Input Interface

Data Interface	2 x TTL Inputs
Data Signal	Logic "0": 0 - (+0.7V) Logic "1": +(2 - 5)V
Data Rate	Up to 2.5 Mb/sec

Environmental & Power

Operating Temperature	-30deg C to +70deg C
Dimensions	170 mm(L), 126 mm(W), 34 mm(D)
Power Requirements	12V AC or DC @ 250mA 24VAC @ 180mA

Introduction :

The Elcommtech 1022M-ADT1-M1ST forms part of a multimode, single fiber dual channel audio and data fiber optic transmission system.

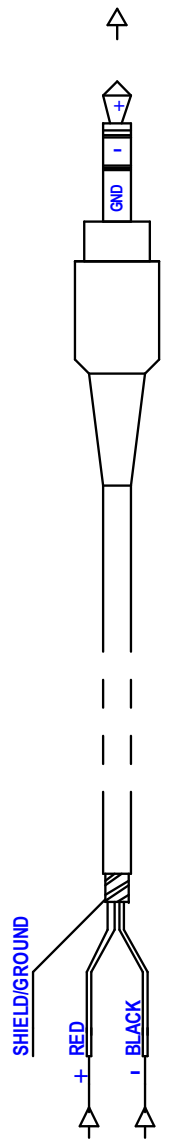
Using high speed digital signal processing and operating as single wavelength 850nm single fiber unit, the 1022M-ADT1-M1ST provides the following facilities in a 172mm x 126mm x 34mm free standing module:

Optical Transmitter for : 2 x Audio Channels & 2 x TTL Data Channels

Indicators : All indicators are located on the top of the module.

Indicator	State	Description
Power	off	The unit is not powered
	green	Power connected
Ready	off	Digital serializer is not synchronized with system clock and transmission is not available
	green	Digital serializer has achieved a synchronization with system clock and system is ready for transmission
Audio In / Ch.1	off	No audio input or insufficient audio signal is present
	green	Audio signal is present
Audio In / Ch.2	off	No audio input or insufficient audio signal is present
	green	Audio signal is present
Tx1 (TTL Data In)	off	No data signal is present at the data Tx1 input
	green	Data signal is present at the data Tx1 input
Tx2 (TTL Data In)	off	No data signal is present at the data Tx2 input
	green	Data signal is present at the data Tx2 input

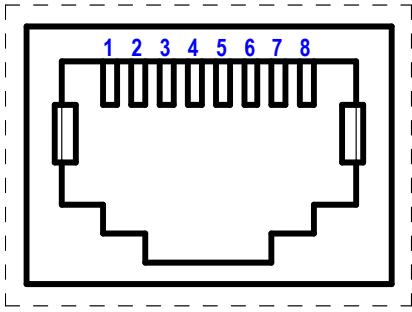
To audio input of ECT1022 Transmitter



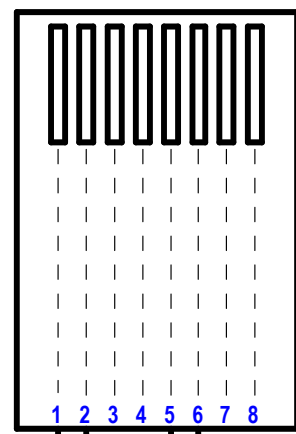
Universal audio input
for balanced or unbalanced source

1022 Transmitter: Audio Cable

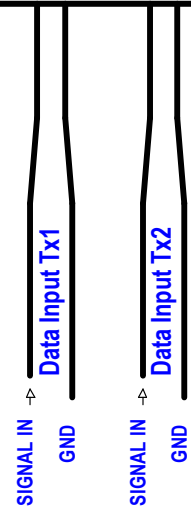
Data Port - RJ45 Modular Receptacle



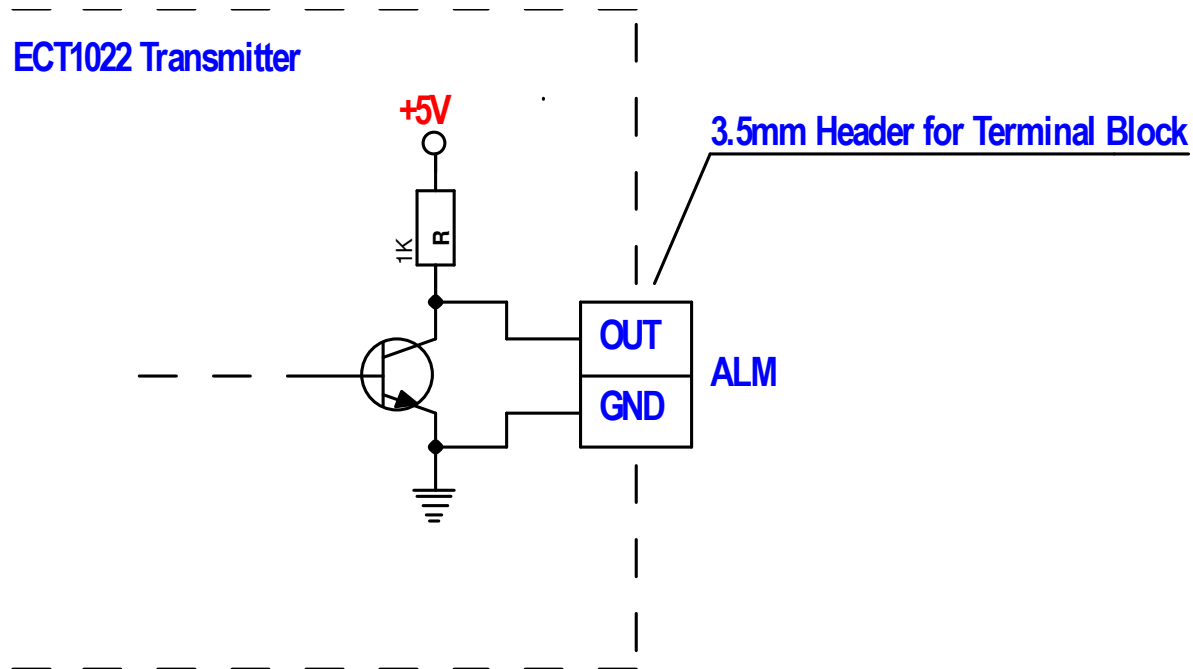
TTL	Tx1 (IN1)	Tx2 (IN2)
DATA SIGNAL +	1	5
COMMON GND	2	6



Data Cable - RJ45 Plug

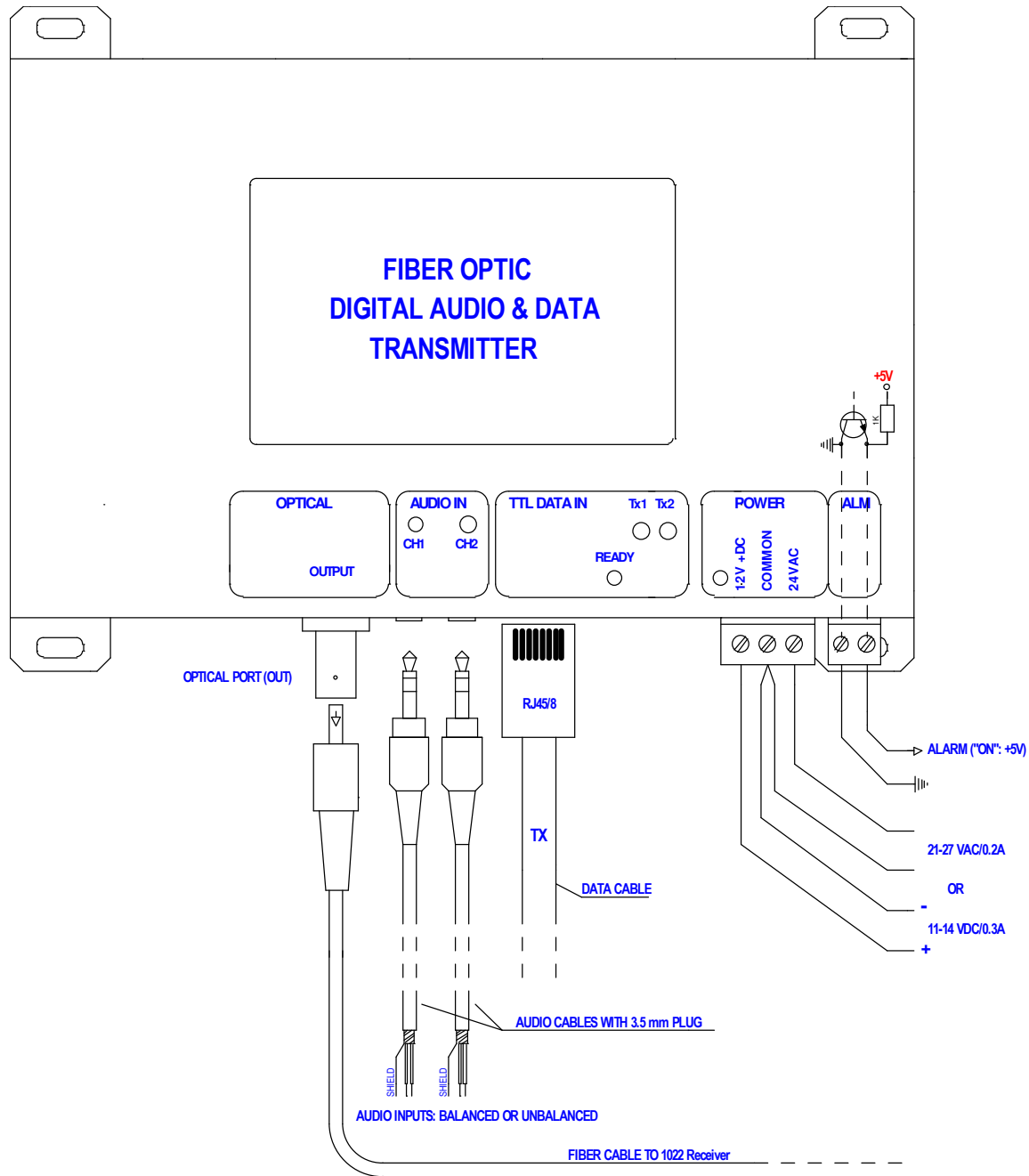


1022 Transmitter: Data Connector & Cable

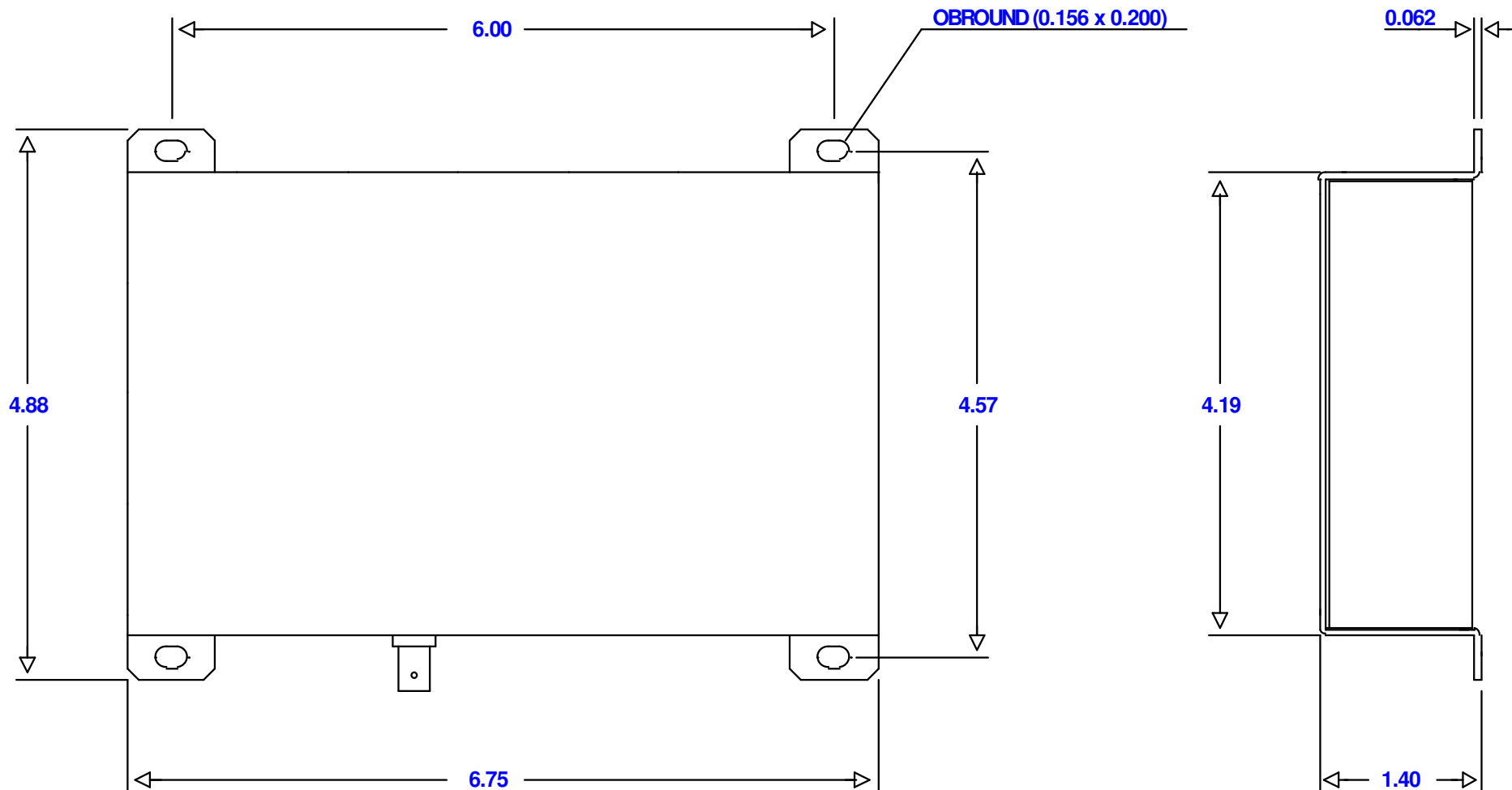


Alarm	"OUT" Signal	Description
"On"	High: + 5 V	Digital serializer has lost the synchronization with internal system clock. The unit is not ready to provide serial transmission of audio & data signals.
"Off"	Low: < 0.2 V	Digital serializer has achieved the synchronization with internal system clock. The unit is ready to provide serial transmission of audio & data signals.
Note: Alarm signals are momentary.		

1022 Transmitter: Alarm Signal Output



1022 Transmitter: Connections Diagram



1022 Transmitter: Installation Drawing



1022M-ADT1-M1ST Fiber Optic Digital 2 Ch. Audio & TTL Data Transmitter Module