



ELCOMMTECH Corporation

## 1022M-ADR1-M1ST

### Fiber Optic Digital 2 Ch. Audio & TTL Data Receiver

Multimode

Single Fiber Operation

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### Specifications

#### Audio Performance

Audio Output	Balanced or Unbalanced
Audio Output Levels	Up to +18 dBm @ 10K load, balanced Up to +13 dBm @ 10K load, unbalanced
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

Wavelength	850 nm
Sensitivity	-28 dBm
Optical Connector	ST
Multimode - Core Diameter	62.5 $\mu$

#### Data Output Interface

Data Interface	2 x TTL Outputs
Data Signal	Logic "0": 0 - (+0.2V) Logic "1": +(4 - 4.5)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 @ 350mA 24VAC @ 250mA

## **Introduction :**

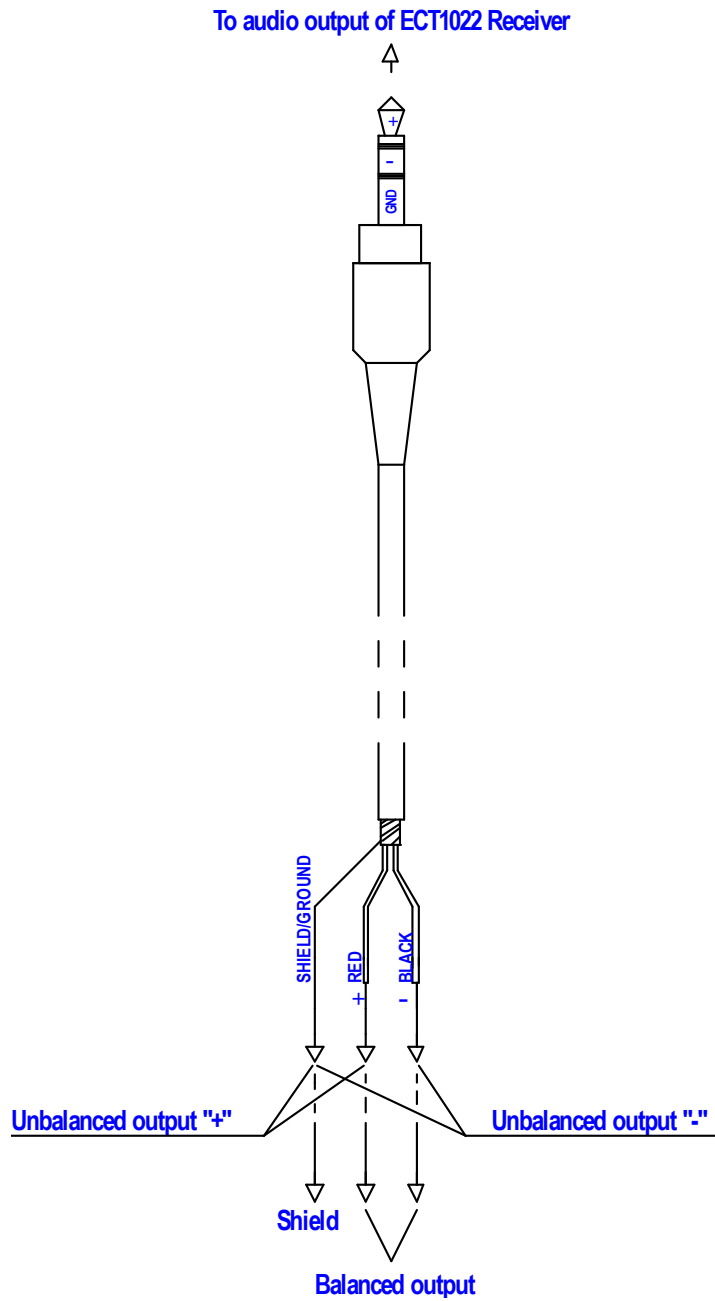
The Elcommtech 1022M-ADR1-M1ST forms part of a multimode, single fiber dual channel audio and data fiber optic receiving system.

Using high speed digital signal processing and operating as single wavelength 850nm single fiber unit, the 1022M-ADR1-M1ST provides the following facilities in a 172mm x 126mm x 34mm free standing module:

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

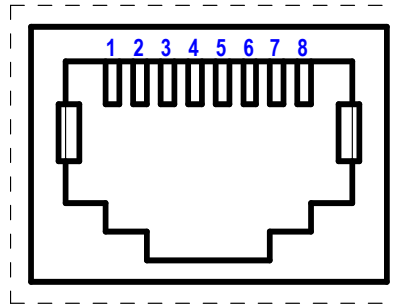
**Indicators** : All indicators are located on the top of the module.

<b>Indicator</b>	<b>State</b>	<b>Description</b>
Power	off	The unit is not powered
	green	Power connected
Link	off	No optical signal from 1022 Transmitter on the optical input or insufficient optical signal is present
	green	The optical signal from 1022 Transmitter is present on the optical input with sufficient value.
Audio Out / Ch.1	off	No audio output or insufficient audio signal is present
	green	Audio signal is present on the output
Audio Out / Ch.2	off	No audio output or insufficient audio signal is present
	green	Audio signal is present on the output
Rx1 (TTL Data out)	off	No data signal is present at the data Rx1 output
	green	Data signal is present at the data Rx1 output
Rx2 (TTL Data out)	off	No data signal is present at the data Rx2 output
	green	Data signal is present at the data Rx2 output

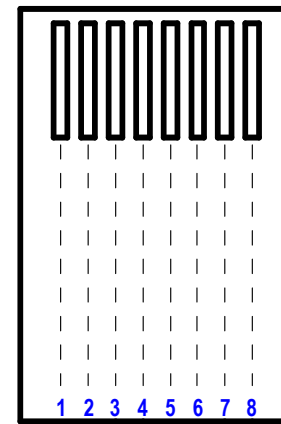


1022 Receiver: Audio Cable

Data Port - RJ45 Modular Receptacle



TTL	Rx1 (OUT1)	Rx2 (OUT2)
DATA SIGNAL +	3	7
COMMON GND	4	8

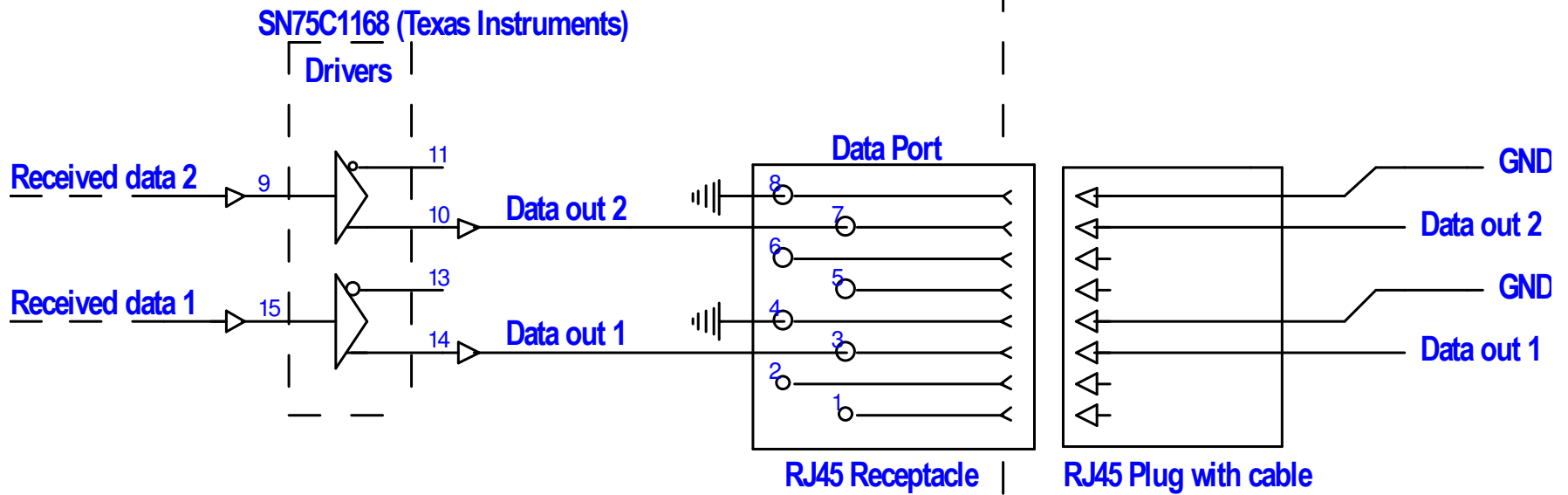


Data Cable - RJ45 Plug

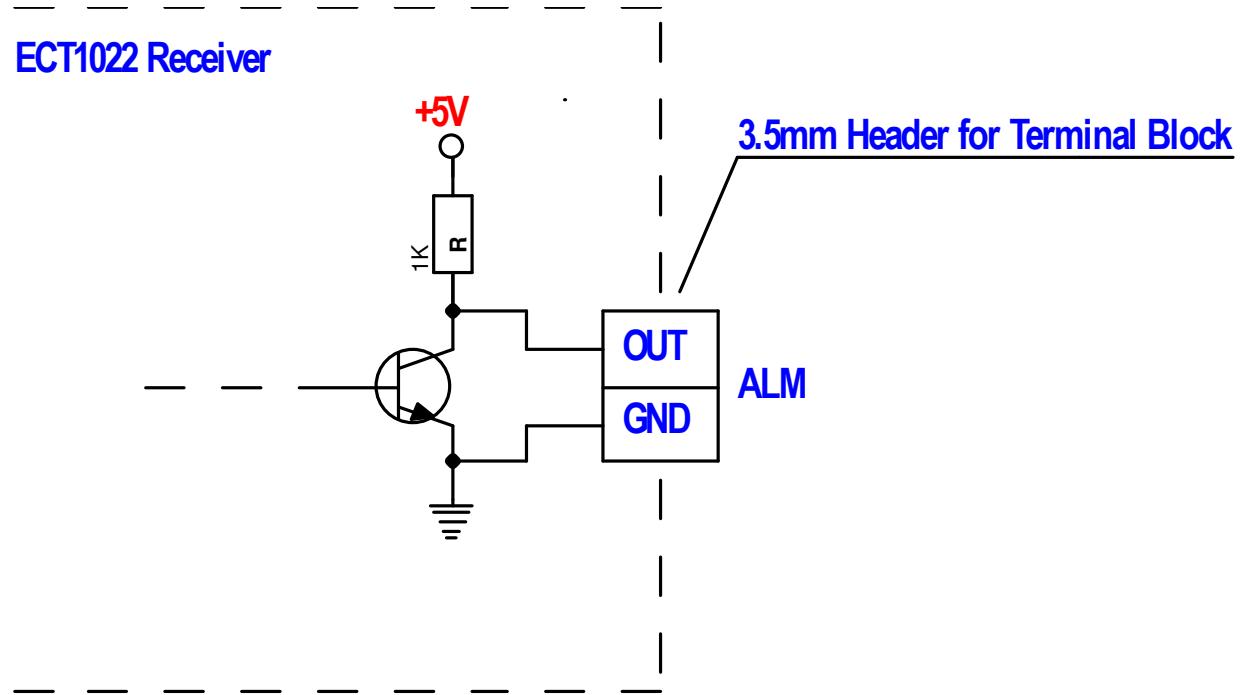


1022 Receiver: Data Connector & Cable

ECT1022 Receiver

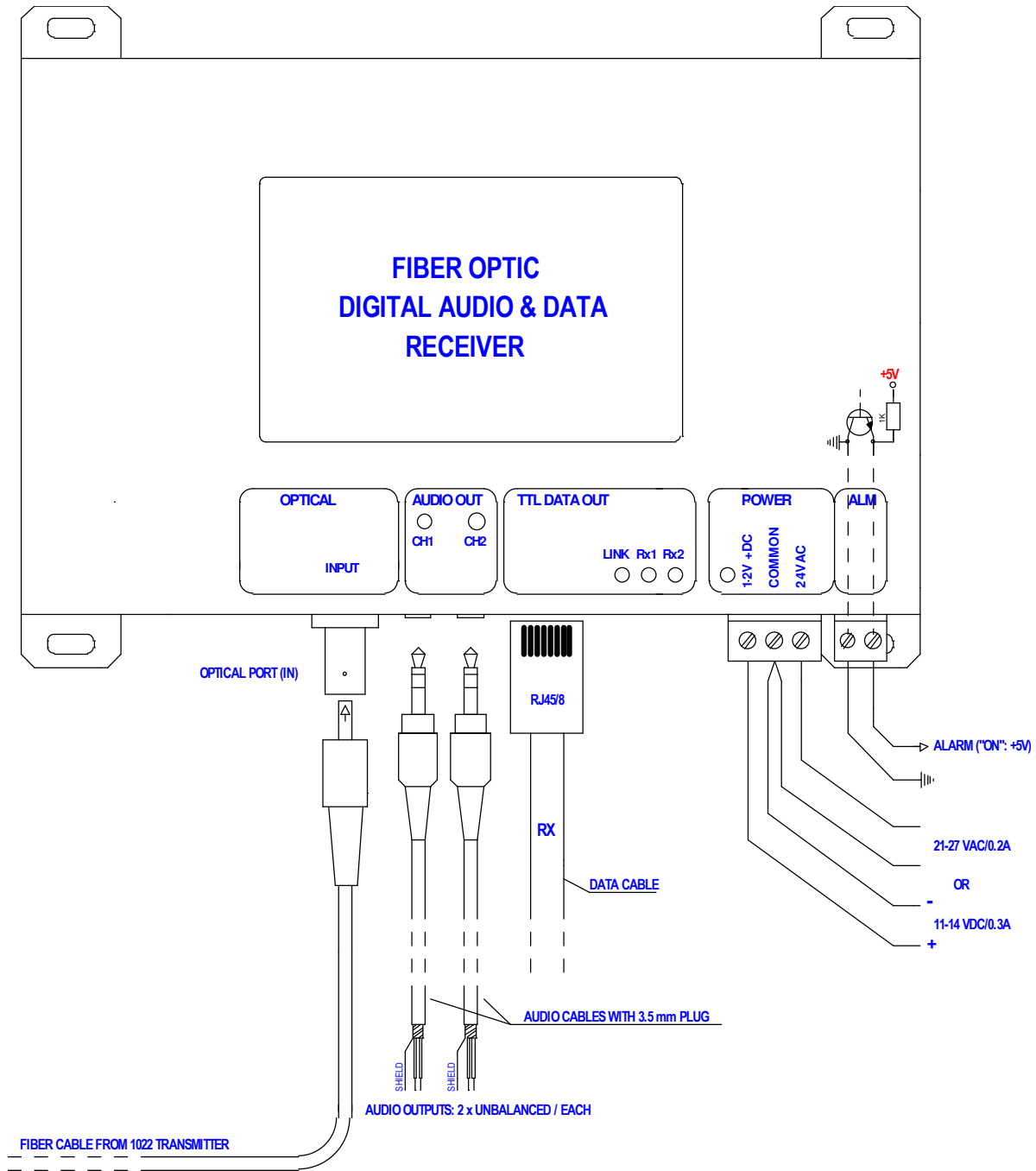


1022 Receiver: Data Output Schematic

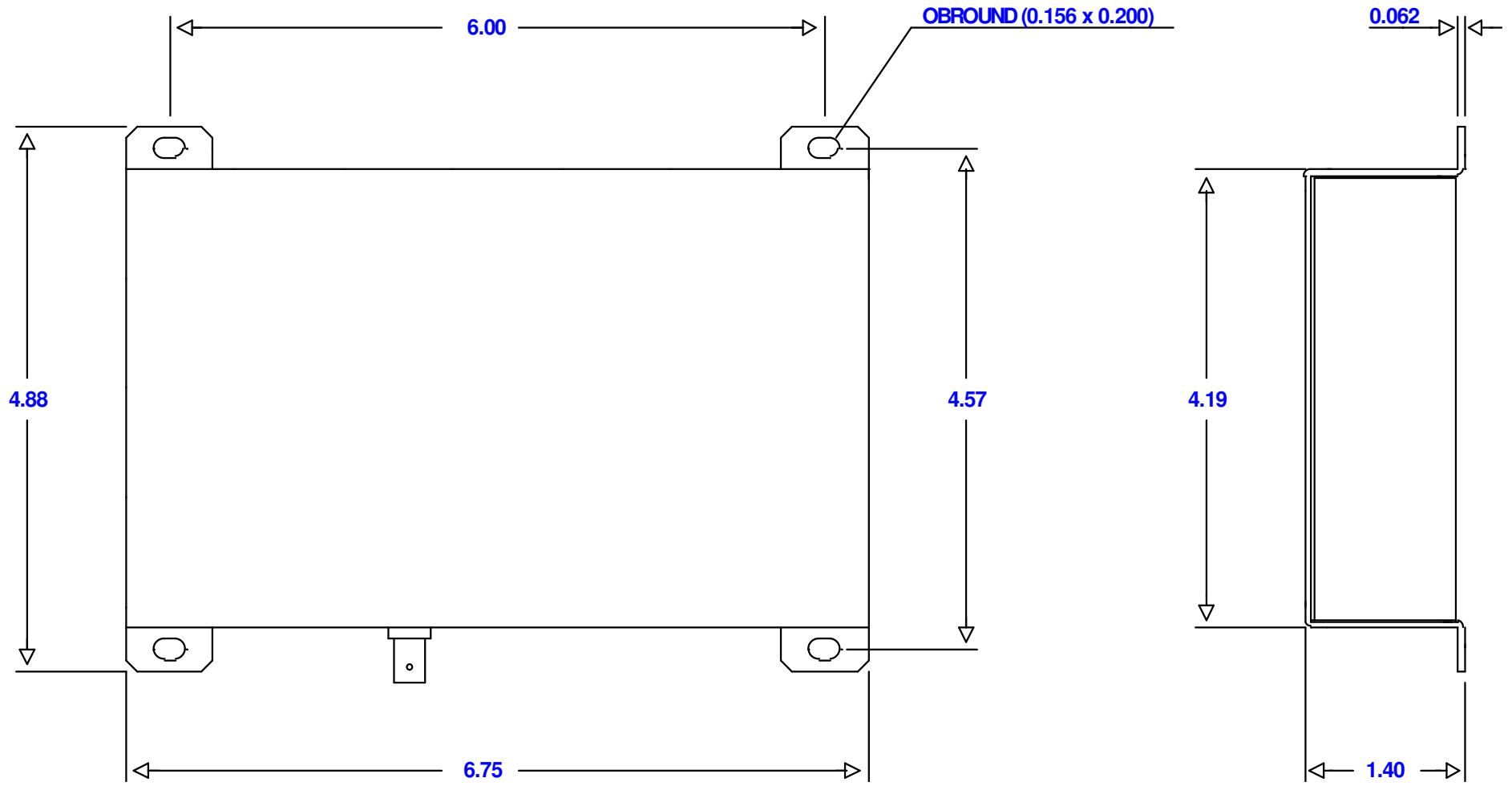


Alarm	"OUT" Signal	Description
"On"	High: + 5 V	Failed reception of optical serial data stream from ECT1022 transmitter. The unit is not ready to provide the reception of audio & data signals.
"Off"	Low: < 0.2 V	The reception of optical serial data stream has been established. The unit is ready to provide the reception of audio & data signals.
Note: Alarm signals are momentary.		

1022 Receiver: Alarm Signal Output



**1022 Receiver: Connections Diagram**



1022 Receiver: Installation Drawing



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