Electro Standards Laboratories
ADVANCED SYSTEMS DESIGN & SERVICES

MADE IN USA

Model 4048 6-Channel ST Fiber Transmitter Unit, Unidirectional Interface Converter
- Copper Interface: RS422, 9-CNT Micro-D Pin connector (J2) (M83513/02-AN)

INTRODUCTION:

The Model 4048 is a high speed 6-Channel ST Fiber to Copper Serial Uni-directional Interface Converter. Typical operating speeds are able up to 10 Mbps for RS422 Interface.

APPLICATIONS:

The converter provides an industrial solution for applications requiring a single point-to-point or a communication link over short and long distances. Application include: PC-to-PC long distance communications, factory automation, data collection devices, barcode readers, time clocks, scales, data entry terminals, ATM's and serial communications in harsh environments.

The Model 4048 is designed to operate from -40°C to +85°C. The unit features ESD protection circuitry on the copper interfaces. The power input is protected from transients, as well as, over voltage and over current. The Model 4048 converter is designed to operate from a power source ranging from 9.9 VDC to 35 VDC, via the 9-pin microD connector.

Model 4048
Cat No. 304048

J4 J6 J7 J8 J9 J10

MODEL 4048
RS422 TO FIBER TRANSMITTER

FEATURES:

- Model 4048 converts ST Duplex Fiber to Copper; 2-Channels; two channels (CH1, CH2) RS422 over a single 9-pin microD port (J2).
- Supports constructing an optically isolated high speed communication link between connected devices.
- Typical operating speeds are up to 10 Mbps for RS422 to fiber conversion.

SPECIFICATIONS:

Optical Interface:
- TX Power: 12 dBm
- Optical Budget: 15 dB
- Max Link Distance with 62.5/125µm fiber:
  2 km at up 5 Mbps (-40° to 85°)
- Wavelength: 850 nm, multimode
- Fiber Size: Accepts 50/125 µm, 62.5/125 µm, or 100/140 µm
- Connectors: (5) Fiber Optic ST Female, Multimode

Fiber Polarity:
Logical 0 = Light ON/OFF: User Selectable via Jumper
Logical 1 = Light ON/OFF: User Selectable via Jumper

Copper Interface:
RS422, 9-CNT Micro-D, Pin connector (J2) (M83513/02-DN)

Bit Rate (nom.):
RS422: up to 10 Mbps

Operating Environment:
40°C to +85°C

Model 4048 / Cat. No. 304048

Copper Connectors:
- Copper I/O: RS422, 9-CNT J2 MicroD Pin Connector: (M83513/02-DN)

Glass Fiber Connectors:
- (6) ST Fiber Optic connectors for Ports (J4, J6, J7, J8, J9 and J10)
  supporting RS422 over fiber for high speeds up to 10 Mbps

Power
- Input Power: +9.9 VDC to +35 VDC
- Connector: 9-CNT Micro-D, (Socket connector (M83513/02-AN)
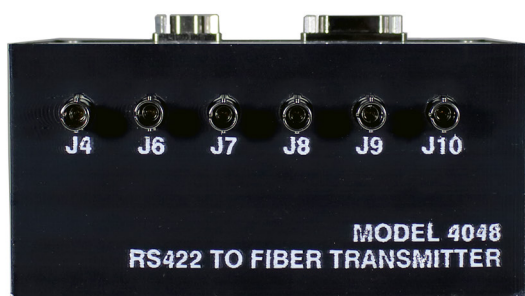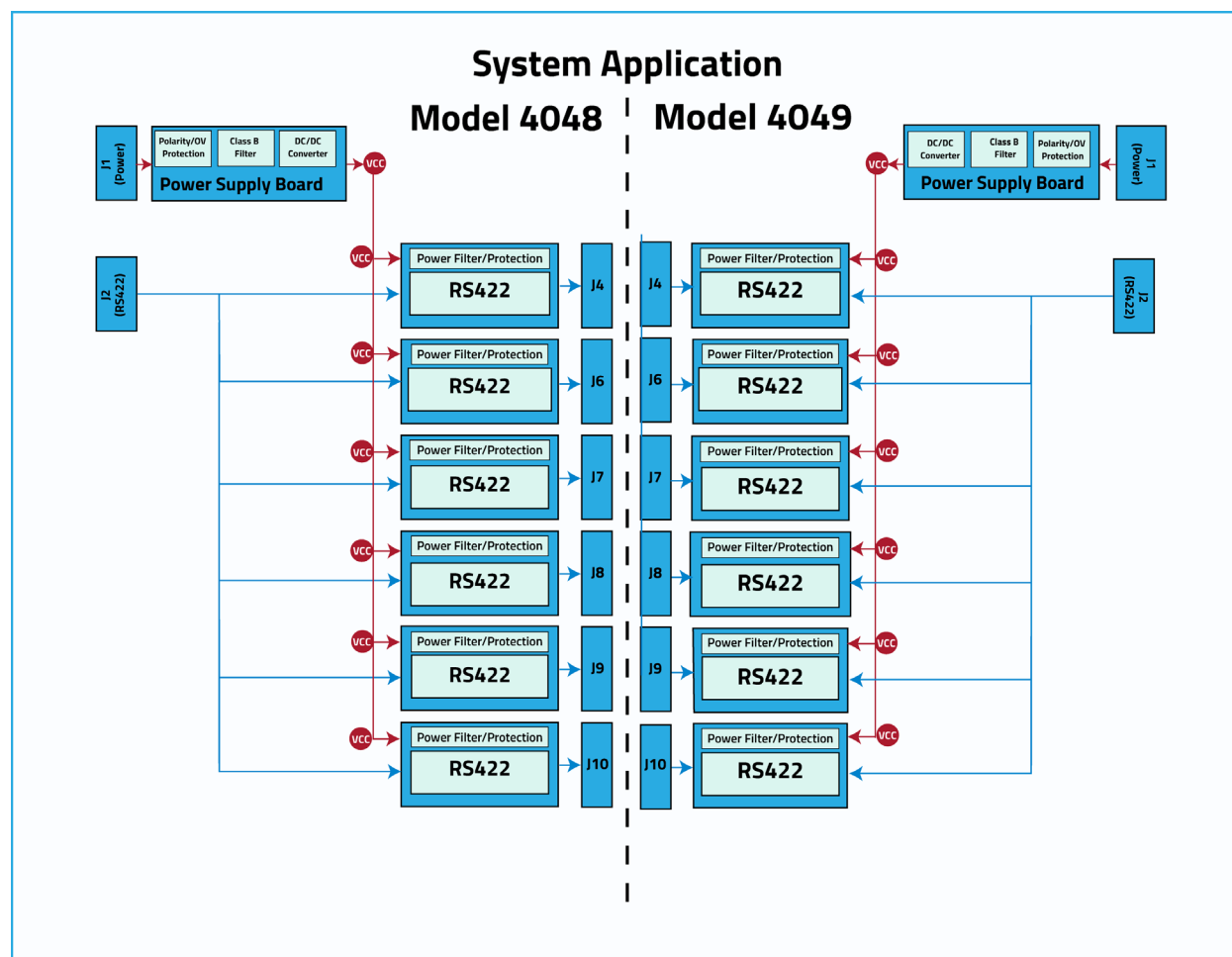- Connections: Pin 9 (VCC), Pin 5 (GND)

Mechanical:
Size: 5" x 4.71" x 2.83" [127mm x 119.6mm x 71.9mm]
Weight: 0.826 Lbs. [0.375kg]

Ground Relationship / Configuration:
- **RS422 Channels:** 1000 Ohm impedance between Signal GND and Digital GND, both isolated from Chassis GND

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Model 4048 RS422 to Fiber Transmitter
Front Panel and Rear Panel View.