Model 2866 TR/REC

S.I.TECH

Fiber Optic Transmitter/Receiver Pair

TRANSMISSION LINE INTERFACE

Operating distance is dependent upon optical fiber core diameter and the cable's optical attenuation. The table below indicates three cables that may be used at any data rate. These cables are available in connectorized assemblies to meet the exact configuration of your application.

S.I.Tech offers complete links including fiber optic cable, connectors, cable assemblies, and Bit-Drivers®.

SYSTEM

Transmission: Up to 6500 ft. (2 Km) with suitable graded index fiber optic cable
Typical Bit Error Rate: Better than 10^{-9}

ELECTRICAL SIGNAL INPUT/OUTPUT FOR TRANSMITTER AND RECEIVER

Format: RS422
Duty Cycle: 0 to 100%
Minimum Pulse Width: 50 nanoseconds
Data Rate: 2400 bps to 20 Mbps
Input impedance: Selectable 120 Ω or Hi impedance
Output Impedance: Standard RS422

OPTICAL TRANSMITTER

Transmitter Output: 20 microwatts (-20 dBm) into 50 micron fiber
Wavelength: 820 nanometers (1300 nm option)
Emitter Type: LED (lensed)
Optical Connector: ST or SMA compatible metal receptacle

OPTICAL RECEIVER

Wavelength: 820 to 900 nanometers (1300 nm option)
Minimum Sensitivity: (BER ≤ 10^{-9}) 2 microwatts (-30 dBm) @ 820 nanometers
Maximum Sensitivity: 20 microwatts
Optical Connector: ST or SMA compatible metal receptacle
Operating Temperature: 0 ^{o}C to 85 ^{o}C
PCB Size: 3.0 x 3.0 in. (7.6 x 7.6 cm)
Weight: 0.12 lbs (60 grams)
Stand Alone Version: 2857

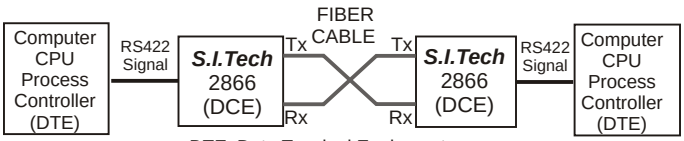
Meets FCC requirements of Class A, Part 15 Computing Devices Standard.
Specifications subject to change without notice.

OPERATING DISTANCE FOR FIBER OPTIC CABLE

Fiber Size (Microns)	Attenuation dB/Km	Distance Meters	Distance Feet
100	5.0	2000	6600
62.5	4.0	2000	6600
50	3.0	2000	6600
10 SM*	1.0	7000	23000

* Single mode, 1300 nm option
Optical unit connection: Connect the optical transmission line to the Tx and Rx receptacles. Note which cable channel goes to Tx or Rx by noting cable imprint. On the other end, reverse the connection.

TYPICAL APPLICATION



DTE: Data Terminal Equipment
DCE: Data Communication Equipment

Pin Assignment - Transmitter/Receiver Board

Connector	Pin No. (Left to Right)	Description
5-Pin*	5	RS422 Input-
	4	RS422 Input+
	3	Ground
	2	RS422 Output-
	1	RS422 Output+
3-Pin**	3	Power Input
	2	No Connect
	1	Ground

* ITW PANCON CE56 F20-5-C or Equivalent
** ITW PANCON CE156 F20-3-C or Equivalent
Power Input: Optional +5VDC or +12VDC operation at 200mA maximum.

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