Model 2110-DIN

S.I.TECH

Optical Asynchronous Bit-Driver   Point to Point and Bus

Features:
- Asynchronous, RS-485 half duplex operation
- 6600 ft. (2Km) maximum distance capability
- 0 ^{o}C to + 50 ^{o}C operating range
- ST connector receptacle (SMA option)
- Works with Johnson Controls System - N2 Bus and Bacnet
- For card version use 2310 (N2 Bus) or 2345 (point to point)
- Data speed set at the factory

Operation Mode:	Asynchronous, half duplex
Input/Output Interface:	RS485, Terminal block asynchronous*
Transmission Line Interface:	ST connector is standard for interfacing with fiber optic cable (SMA option)
Transmission Distance:	See distance chart
Optical Power into a 50 Micron Core Optical Fiber:	1 microwatt, 10 dB power budget* @ 880 nanometers
Receiver Sensitivity:	100 nanowatts at less than 10 $^{-9}$ bit error rate
Operating Temperature:	0 ^{o}C to 50 ^{o}C
Enclosure Size:	4" H x 5" L x 7/8" W (10 x 12.7 x 2.2 cm)
Weight:	0.25 lb (100 grams)
Input Power:	External with power supply (S.I. Tech #2121-DIN 110VAC to 12 VDC) or 8 to 16VDC or 24VDC, 130mA
230V Version:	Use S.I.Tech 2164-DIN power supply

* 1200, 2400, 9600, 19.2, 38.4, 57.6, 76.8, 115.2 Kbps

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

UL CE

RS - 485 TERMINAL BLOCK PIN
UTILIZED BY 2110 DIN RAIL BIT - DRIVER

D+	N2+
D-	N2-
T+	Termination (+)
T-	Termination (-)
-	Power Return
+	Power In
REF	N2 Refernece
EARTH	GROUND
Tx	Transmit Fiber
Rx	Receive Fiber

OPERATING DISTANCE FOR FIBER OPTIC CABLE

Fiber Size (Microns)	Attenuation dB/Km	Distance Meters*	Distance Feet*
1000	200	100	330
50	3.0	2000	6600
62.5	4.0	2000	6600
100	5.0	2000	6600
8 SM**	1.0	7000	23000

* High power option available ** Single mode option
1000 Micron is plastic fiber (uses SMA connectors) option

ORDERING INFORMATION

Model Numbers

2110	RS485 to Fiber, Multimode, ST Connector, N2 Bus
2110BAC	RS485 to Fiber, Multimode, ST Connector, Bacnet
2610	RS485 to Fiber, Multimode, ST, High Temp.
2110-SM	RS485 to Fiber, Single Mode, ST
2110-SMA	RS485 to Fiber, Multimode, SMA Connector
2110-660	RS485 to Plastic Fiber, SMA Connector
2110-L	RS485 to Fiber, Multimode, High Power (5Km), ST
2110-DIN	RS485 to Fiber, Multimode, ST, Dinrail Unit
2110-SM-DIN	RS485 to Fiber, Single mode, ST, Dinrail Unit
2110-DIN-ET	RS485 to Fiber, Multimode, ST, Dinrail Unit, Extended Temp.

Notes:
1. Power Supply # 2121 is required for all models (110VAC to 12 VDC).
2. Power Supply #2164 is for 230VAC applications
3. For 2110 rack mounted, use version 2310 (or 2345) Card with 3000 Rack, 4000 Power Supply, and 3520 (or 3500) Motherboard.
4. ET-Extended temperature range -40°C to +70°C

RS485   RS485

FIBER OPTICS

CPU COMPUTER   DTE

TYPICAL APPLICATION