LUXCOM Technologies Inc.

OPTEL3

Fiber Optic Telephone/Data Modem

Applications

- Voice Links where security is a priority
- Voice Links over an extended distance
- Voice Links in an EMI noisy environment
- Voice and data transmission

Description

The **OPTEL3** is usually used to extend a two wire telephone line using optical fibers. The **OPTEL3**-SL connects to a *plain old telephone*, and the **OPTEL3**-CO connects to a CO or PBX at the other end of the link. It is available with either a 1x9 or SFP optical transceiver. The optical fiber pair which connects the two may be multimode or singlemode depending on the selected transceiver. In addition, it has an RS232 data port.

A dedicated voice link (order-wire) can be created by having an OPTEL3-SL at both ends of the link. Lifting the handset at one end causes the other end to ring.

Another version, the OPTEL3-ASL, is an analog two wire modem which transmits and receives analog signals in the 200 to 3400 Hz range. It can be used as a clear channel for PSK, FSK, DTMF, or other signals.

Fiber optic transmission offers information security, electrical isolation, lightning protection, and EMI/RFI immunity. Since the voice is digitally encoded, the quality does not degrade with distance.

Features

- Interfaces to a standard analog telephone line
- Can be used as a dedicated link (order-wire)
- Singlemode or multimode fiber operation
- Optical receive power meter in the SFP versions
- RS232 data channel
- Relay Sense/Closure channel or Alarm Closure
- Wide temperature range (-40C to 75C)
- 5 year warranty

Specifications

Optical operating distance (typical fiber)

Version	Wave Length	Fiber Size	Launch dBm	Loss dB/km	Distance km
MM	1310	62/125µ	-18	0.8	18
SM	1310	9/125µ 62/125µ	-5 -5	0.4 0.8	60 30
SME	1550	9/125µ	-0	0.32	120
*BU *BD	1310 1550	9/125µ 9/125µ	-14 -14	0.4 0.4	20 20

* The BU and BD version are used in pairs.

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Specifications (continued)

Telephone Interface

Input/output connector	RJ-11
Input/output impedance	600 Ohms (North American)
Analog bandwidth	200 Hz to 3.4 KHz
Analog input Level	3.1 Vpp max.(+3 dBm)
Analog insertion gain	-2 dB typical
Idle channel noise C-Message Weighted	< 21 dBrnCO
OPTEL3-SL DC voltage	48 V nominal
OPTEL3-SL ringing voltage	130 Vpp +/-5% @ 20 Hz

Electrical

Relay-closure-sense voltage/current	5 VDC PinB wrt PinA / sources 2 mA
Relay contact voltage/current	200 VDC or peak AC/ 2 A DC or peak AC
RS232 channel SM and LC versions	0-200 kbps asynchronous, 0-100 kbps synchronous
Power source	5 VDC power cube, 90-240VAC, 50-60Hz
Input voltage/power	4.8 to 6 VDC, < 2.2 Watts

General

Operating temperature	-40°C to 75°C
Dimensions	13 x 2 x 9 cm

Meets RoHS, FCC Part 15, FCC Part 68, EN55022, and EN55024 standards

Note: Specifications are subject to change without notice.

Part Numbers

CO = Central Office/PBX interface
SL = Subscriber Loop telephone interface
ASL = Analog interface

Optel3- XX - XX - XX - XX

NA = Canada/USA ringing
UK = United Kingdom ringing

ST = ST optical connector
SC = SC optical connector
LC = LC optical connector (SFP transceiver with power meter)

MM = 1310nm (multimode fiber)
SM = 1310nm (singlemode fiber)
SME = 1550nm (singlemode extended distance)
*BU = 1310nm (singlemode fiber)
*BD = 1550nm (singlemode fiber)

*The single fiber version BU must be paired with the BD.

Accessories

MP8	mounting rack for four OPTEL3 modems
MP8-P2	mounting rack for four OPTEL3 modems with power supply
SP8	mounting plate for mounting the OPTEL3 to a flat surface

More information on these and other accessories can be found at www.luxcom.com

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