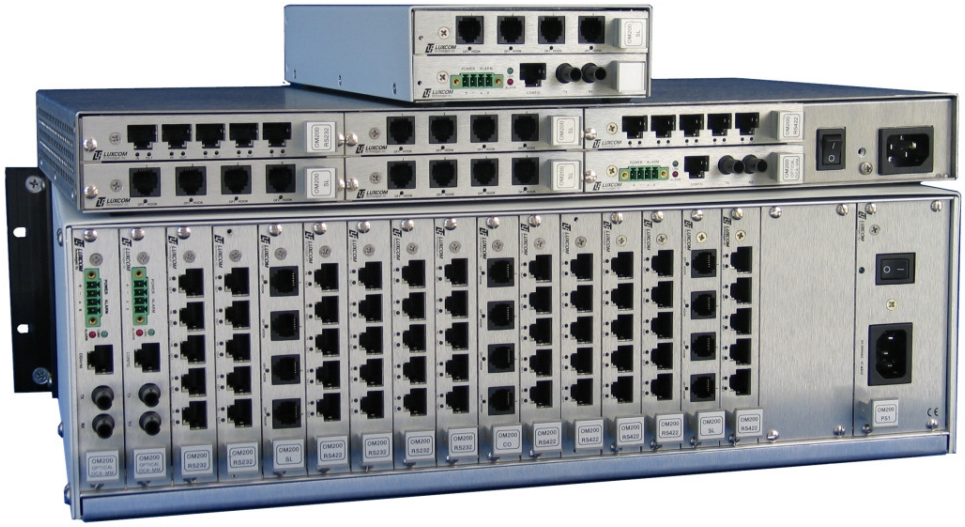
Telephone Subscriber Loop Interface
Telephone Central Office Interface
For OM200 SONET-OC3 Multiplexer



Chassis

- Chassis sizes of 2, 4, 6, and 16 slot.
- Optical data rate of 155Mbps
- Single or multimode fiber versions
- Point-to-point topology
- Add/drop topology
- Fiber protection ring switching

Interfaces

Telephony
- Subscriber Loop & CO
- Digital - MC300
- Digital – M3903/4
- T1 or E1

Data
- EIA530, RS232, V.35
- RS485/RS232 - Add/Drop
- RS232
- RS485
- Ethernet

Audio
- Analog 2-wire
- Analog 4-wire
- E&M
- Radio - Harris RF5800H

Other
- Contact sense/closure
- Alarm - chassis monitor
- Radar - video
- Optical SONET

General

Every chassis requires at least one *Optical SONET* card and one *Interface* card.
Full details can be found at: *www.luxcom.com/product/om200*

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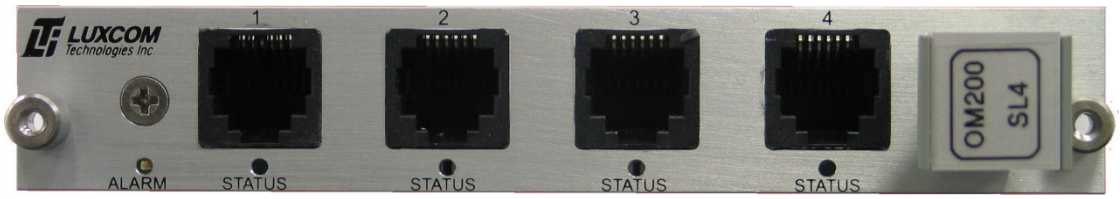
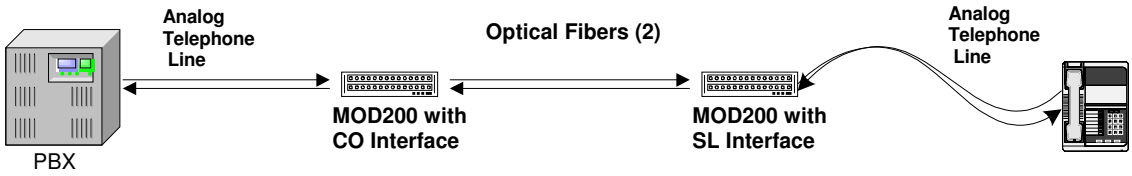
Interface: OM200-SL4 (telephone)



Description

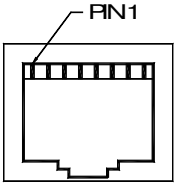
The SL Interface, when paired with the CO Interface, extends a telephone line; it connects to a POT (Plain Old Telephone). This Interface provides the subscriber loop battery and ringing voltages needed by the telephone. Taking the telephone off-hook causes the remote CO Interface to go off-hook. When the remote CO Interface receives a ringing voltage, a ringing voltage is provided by this SL Interface. The figure below shows this application. There are four independent SL Interface ports on each card.

The SL Interface can also be paired with another SL Interface to create a dedicated telephone link (order-wire). In this case picking up the telephone at one node causes the telephone to ring at the other node.



I/O Ports

The telephones connect to the SL Interface through the RJ-11 connectors. The polarity of the TIP/RING connection can be reversed without affecting performance. The pin-out is shown in the following table.



Pin #	Function
1	No Connection
2	No Connection
3	TIP
4	RING
5	No Connection
6	No Connection

Indicators

ALARM on (red) indicates there is no connection with a remote partner, or the card failed.
STATUS on indicates the telephone at the remote end is off-hook

Specifications

System bandwidth used by this card	0.5%
Current used by this card (four ports off-hook)	< 1.1 A
Power consumption (four ports on-hook)	< 1 W
(four ports off-hook)	< 5.5 W
(four ports ringing)	< 3 W
Operating temperature	-40C to +70C
Ringing voltage typical	146 Vpp
Tip/Ring “battery” voltage typical	48V

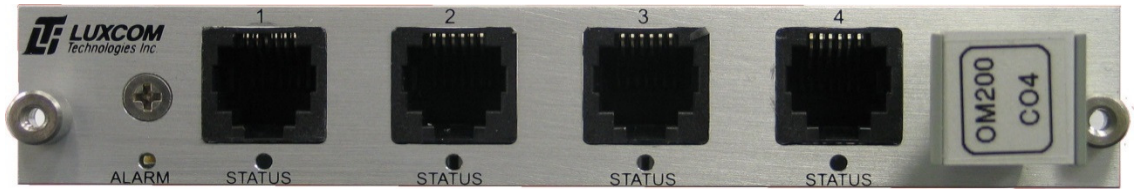
Voice

Number of channels	4
Line Interface connectors	RJ-11
Input/Output impedance	600 ohms nominal
Analog bandwidth	200 to 3400 Hz
Analog input Level without significant distortion	3Vpp
Analog insertion gain	± 1 dB
Encoding	16 bit linear
Idle channel noise (C Message Weighted)	< 18 dBrnC
Idle channel noise (3 kHz flat)	< 25 dBrn

Ordering Information

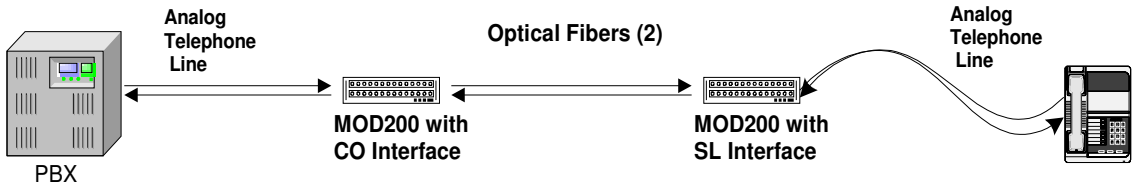
Part number OM200-SL4

Interface: OM200-CO4 (telephone)



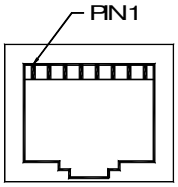
Description

The CO Interface extends a telephone line; it connects to a Private Branch Exchange (PBX) or a Central Office (CO). The CO Interface sees the subscriber loop battery and ringing voltages as would a telephone. The CO Interface card is paired with a SL Interface in another OM200 node to implement a full telephone analog line circuit. The figure below shows this application. There are four independent CO Interface ports on each card.



I/O Ports

The Central Office line connects to the CO Interface through the RJ-11 connector. The polarity of the TIP/RING connection can be reversed without affecting performance. The pin-out is shown in the following table.



Pin #	Function
1	No Connection
2	No Connection
3	TIP
4	RING
5	No Connection
6	No Connection

Indicators

ALARM on (red) indicates there is no connection with a remote partner, or the card failed.
STATUS on indicates the telephone at the remote end is off-hook.

Specifications

System bandwidth used by this card	0.5%
Current used by this card	< 0.2 A
Power consumption	< 1 W
Operating temperature	-40C to +70C

Voice

Number of channels	4
Line Interface connectors	RJ-11
Input/Output impedance	600 ohms nominal
Analog bandwidth	200 Hz to 3.4 Hz
Analog input Level without significant distortion	3 Vpp
Analog insertion gain	± 1 dB
Encoding	16 bit linear
Idle channel noise (C Message Weighted)	< 18 dBrnC
Idle channel noise (3 kHz flat)	< 25 dBrn

Ordering Information

Part number OM200-CO4