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

Interfaces

<table>
<thead>
<tr>
<th>Telephony</th>
<th>Audio</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subscriber Loop &amp; CO</td>
<td>Analog 2-wire</td>
<td>Contact sense/closure</td>
</tr>
<tr>
<td>Digital - MC300</td>
<td>Analog 4-wire</td>
<td>Alarm - chassis monitor</td>
</tr>
<tr>
<td>Digital – M3903/4</td>
<td>E&amp;M</td>
<td>Radar - video</td>
</tr>
<tr>
<td>T1 or E1</td>
<td>Radio - Harris RF5800H</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Data</th>
<th></th>
<th>Optical SONET</th>
</tr>
</thead>
<tbody>
<tr>
<td>EIA530, RS232, V.35</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS485/RS232 - Add/Drop</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS232</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS485</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethernet</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Audio

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

<table>
<thead>
<tr>
<th>Pin #</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No Connection</td>
</tr>
<tr>
<td>2</td>
<td>No Connection</td>
</tr>
<tr>
<td>3</td>
<td>TIP</td>
</tr>
<tr>
<td>4</td>
<td>RING</td>
</tr>
<tr>
<td>5</td>
<td>No Connection</td>
</tr>
<tr>
<td>6</td>
<td>No Connection</td>
</tr>
</tbody>
</table>
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
- Power consumption (four ports off-hook): < 5.5 W
- Power consumption (four ports ringing): < 3 W
- Operating temperature: -40°C to +70°C
- 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.

<table>
<thead>
<tr>
<th>Pin #</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>No Connection</td>
</tr>
<tr>
<td>2</td>
<td>No Connection</td>
</tr>
<tr>
<td>3</td>
<td>TIP</td>
</tr>
<tr>
<td>4</td>
<td>RING</td>
</tr>
<tr>
<td>5</td>
<td>No Connection</td>
</tr>
<tr>
<td>6</td>
<td>No Connection</td>
</tr>
</tbody>
</table>
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: -40°C to +70°C

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 dBnC
- Idle channel noise (3 kHz flat): < 25 dBnC

Ordering Information

Part number: OM200-CO4