MASTER MODEL NUMBER SELECTION GUIDE

PCI RECEIVER BOARDS WITH FM DEMOD; SINGLE CHANNEL, where X is frequency band

LS-25-PAX Single Band PCM/FM PCI Receiver with 4 IF BW and 4 Video
LS-25-PBX Single Band PCM/FM PCI Receiver with 12 IF BW and 12 Video
LS-25-PAXX Dual-Band PCM/FM PCI Receiver with 4 IF BW and 4 Video
LS-25-PBXX Dual-Band PCM/FM PCI Receiver with 12 IF BW and 12 Video
LS-25-PAXXX Tri Band PCM/FM PCI Receiver with 4 IF BW and 4 Video
LS-25-PBXXX Tri Band PCM/FM PCI Receiver with 12 IF BW and 12 Video

PCI DOWNCOMVERTER BOARDS; SINGLE CHANNEL, where X is frequency band

LS-25-DAX Single-Band PCI Down Converter to 70 MHz with 4 Selectable 2nd IF Filters
LS-25-DBX Single-Band PCI Down Converter to 70 MHz with 12 Selectable 2nd IF Filters
LS-25-DAXX Dual-Band PCI Down Converter to 70 MHz with 4 Selectable 2nd IF Filters
LS-25-DBXX Dual-Band PCI Down Converter to 70 MHz with 12 Selectable 2nd IF Filters
LS-25-DAXXX Tri-Band PCI Down Converter to 70 MHz with 4 Selectable 2nd IF Filters
LS-25-DBXXX Tri-Band PCI Down Converter to 70 MHz with 12 Selectable 2nd IF Filters
PCI DOWNCONVERTER BOARDS; SINGLE/DUAL CHANNEL, where X is frequency band

- LS-27-DX: Single Channel Single Band Down Converter
- LS-27-DXX: Single Channel Dual Band Down Converter
- LS-27-DXXX: Single Channel Tri Band Down Converter
- LS-27-DDXXXX: Single Channel Quad Band Down Converter
- LS-27-DDX: Dual Channel Single Band Down Converter
- LS-27-DDXX: Dual Channel Dual Band Down Converter
- LS-27-DDXXX: Dual Channel Tri Band Down Converter
- LS-27-DDXXXX: Dual Channel Quad Band Down Converter

BAND OPTIONS X: Custom Bands Available Upon Request (200-6000 MHz, Bandwidth Dependent)

- I 70MHz
- P 215-320 MHz
- L 1435-1540 MHz
- U 1710-1850 MHz
- S 2200-2400 MHz
- E 2185-2485 MHz
- S+ 2185-3220
- K 680-760 MHz
- C 4250-4950 & 5190-5250 MHz
- CIF 450-1150 MHz

Specifications are subject to change. Please verify the latest specifications at time of order.
MASTER MODEL NUMBER SELECTION GUIDE

**Single/Dual Channel IF Receiver** with Multi-Mode Demodulators/Bit Synchronizer/Combiners

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-35-R-M1</td>
<td>Single Channel PCM/FM only</td>
</tr>
<tr>
<td>LS-35-R-M2</td>
<td>Single Channel SOQPSK only</td>
</tr>
<tr>
<td>LS-35-R-M3</td>
<td>Single Channel PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, PM with sub-carrier</td>
</tr>
<tr>
<td>LS-35-R-M4</td>
<td>Single Channel M3 demods plus AUQPSK</td>
</tr>
<tr>
<td>LS-35-R-M6</td>
<td>Single Channel PCM/FM &amp; SOQPSK</td>
</tr>
<tr>
<td>LS-35-R-M7</td>
<td>Single Channel PCM/FM, SOQPSK, Multi-h CPM (ARTM Tier 0, I, II)</td>
</tr>
<tr>
<td>LS-35-R-M8</td>
<td>Single Channel All formats</td>
</tr>
<tr>
<td>LS-35-R-M21</td>
<td>Dual Channel PCM/FM only</td>
</tr>
<tr>
<td>LS-35-R-M22</td>
<td>Dual Channel SOQPSK only</td>
</tr>
<tr>
<td>LS-35-R-M23</td>
<td>Dual-Channel PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PM with sub-carrier</td>
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<tr>
<td>LS-35-R-M24</td>
<td>Dual-Channel M3 demods plus AUQPSK</td>
</tr>
<tr>
<td>LS-35-R-M26</td>
<td>Dual-Channel PCM/FM SOQPSK</td>
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<tr>
<td>LS-35-R-M27</td>
<td>Dual-Channel PCM/FM, SOQPSK, Multi-h CPM (ARTM Tier 0, I, II)</td>
</tr>
<tr>
<td>LS-35-R-M28</td>
<td>Dual-Channel All formats</td>
</tr>
</tbody>
</table>
LS-35-R Series Options at Time of Order

- P     Add Pre-D Diversity Combiner
- O     Add Post-D Diversity Combiner
- B     Add Both Pre and Post D combiner
- V     Add Viterbi to a single channel unit
- V2    Add Viterbi to a dual channel unit
- RS    Add Reed-Solomon Decoding to a single channel unit
- RS2   Add Reed-Solomon Decoding to a dual channel unit
MASTER MODEL NUMBER SELECTION GUIDE

MODULAR FM RECEIVERS; where X is frequency band

LS-27-BX  Lumistar Single-Channel Single-Band Drive Bay Receiver with 8 IF filters
LS-27-BXX  Lumistar Single-Channel Dual-Band Drive Bay Receiver with 8 IF filters
LS-27-BXXX  Lumistar Single-Channel Tri-band Drive Bay Receiver with 8 IF filters
LS-27-BBX  Lumistar Dual-Channel Single-Band Drive Bay Receiver with 8 IF filters
LS-27-BBXX  Lumistar Dual-Channel Dual-Band Drive Bay Receiver with 8 IF filters
LS-27-BBXXX  Lumistar Dual-Channel Tri-band Drive Bay Receiver with 8 IF filters

SPECTRAL AND EYE PATTERN DISPLAY BOARDS

LS-22-SE  PCI 70 MHz Spectral and Baseband Eye Pattern Display - 1 Channel
LS-22-2SE  PCI 70 MHz Spectral and Baseband Eye Pattern Display - 2 Channels
LS-22-3SE  PCI 70 MHz Spectral and Baseband Eye Pattern Display - 3 Channels
LS-28-DRSM SERIES MODULAR DUAL-CHANNEL RANGE TELEMETRY RECEIVER/COMBINERS

LS-28-DRSM Dual-Channel Single Band Configurations

LS-28-DRSM-M1X         Multi-Symbol PCM/FM demod format
LS-28-DRSM-M2X         SOQPSK only
LS-28-DRSM-M3X         Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-DRSM-M4X         Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-DRSM-M6X         Multi-Symbol PCM/FM and SOQPSK
LS-28-DRSM-M7X         Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-DRSM-M8X         All Formats

LS-28-DRSM Dual-Channel Dual-Band Configurations

LS-28-DRSM-M1XX        Multi-Symbol PCM/FM demod format
LS-28-DRSM-M2XX        SOQPSK only
LS-28-DRSM-M3XX        Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-DRSM-M4XX        Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-DRSM-M6XX        Multi-Symbol PCM/FM and SOQPSK
LS-28-DRSM-M7XX        Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-DRSM-M8XX        All Formats
LS-28-DRSM Dual-Channel Tri-Band Configurations

LS-28-DRSM-M1XXX  Multi-Symbol PCM/FM demod format
LS-28-DRSM-M2XXX  SOQPSK only
LS-28-DRSM-M3XXX  Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-DRSM-M4XXX  Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-DRSM-M6XXX  Multi-Symbol PCM/FM and SOQPSK
LS-28-DRSM-M7XXX  Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-DRSM-M8XXX  All Formats

LS-28-DRSM Dual -Channel Quad-Band Configurations

LS-28-DRSM-M1XXXX Multi-Symbol PCM/FM demod format
LS-28-DRSM-M2XXXX SOQPSK only
LS-28-DRSM-M3XXXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-DRSM-M4XXXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-DRSM-M6XXXX Multi-Symbol PCM/FM and SOQPSK
LS-28-DRSM-M7XXXX Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-DRSM-M8XXXX All Formats

See “Band Options” on p. 2 (NOTE: Up to six bands available in the “LS-28-DRSM” series)
LS-28-DRSM Series Options at Time of Order

Lumistar offers various frequency bands, demodulation formats, Chapter 10 Ethernet Data Streaming, Data Archive, and various decoding schemes as options in the LS-28-DRSM series products. Ordering information is in parenthesis. Consult factory for additional details.

Pricing is dependent upon the customer selection of these options. Some examples are listed below:

- Demodulation Formats:
  - PCM/FM only (-M1), SOQPSK (-M2), PCM/FM and SOQPSK only (-M6)
  - PCM/FM, BPSK, QPSK, OQPSK, AQPSK, SQPSK, SOQPSK, and PM (-M3)
  - M3 formats plus AUQPSK (-M4),
  - BPSK, QPSK, OQPSK, SQPSK, PM with sub-carrier (M5)
  - PCM/FM, SOQPSK and Multi-h CPM (-M7)
- CH10 Data Broadcast, Time Stamped (-C10E)
- Viterbi decoding (-V2)
- Reed-Solomon (-RS2)
- Soft Bit Decision Outputs (-SB3)
- Space Time Coding (-SC3)
- LDPC Coding (-LD3)
- Sub-carrier (-S2)
- AQPSK (-A2)
- Viterbi and Reed-Solomon Decoding (-VRS2)
- IRIG Pre-D Record/Playback (-IRP)
LS-28-1DRSM  SERIES MODULAR SINGLE-CHANNEL RANGE TELEMETRY RECEIVERS

LS-28-1DRSM  Single-Channel Single Band Configurations

LS-28-1DRSM-M1X  Multi-Symbol PCM/FM demod format
LS-28-1DRSM-M2X  SOQPSK only
LS-28-1DRSM-M3X  Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-1DRSM-M4X  Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-1DRSM-M6X  Multi-Symbol PCM/FM and SOQPSK
LS-28-1DRSM-M7X  Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-1DRSM-M8X  All Formats

LS-28-1DRSM  Single-Channel Dual-Band Configurations

LS-28-1DRSM-M1XX  Multi-Symbol PCM/FM demod format
LS-28-1DRSM-M2XX  SOQPSK only
LS-28-1DRSM-M3XX  Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-1DRSM-M4XX  Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-1DRSM-M6XX  Multi-Symbol PCM/FM and SOQPSK
LS-28-1DRSM-M7XX  Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-1DRSM-M8XX  All Formats
LS-28-1DRSM  Single-Channel Tri-Band Configurations

LS-28-1DRSM-M1XXX Multi-Symbol PCM/FM demod format

LS-28-1DRSM-M2XXX SOQPSK only

LS-28-1DRSM-M3XXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM

LS-28-1DRSM-M4XXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM

LS-28-1DRSM-M6XXX Multi-Symbol PCM/FM and SOQPSK

LS-28-1DRSM-M7XXX Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)

LS-28-1DRSM-M8XXX All Formats

LS-28-1DRSM  Single-Channel Quad-Band Configurations

LS-28-1DRSM-M1XXXX Multi-Symbol PCM/FM demod format

LS-28-1DRSM-M2XXXX SOQPSK only

LS-28-1DRSM-M3XXXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM

LS-28-1DRSM-M4XXXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM

LS-28-1DRSM-M6XXXX Multi-Symbol PCM/FM and SOQPSK

LS-28-1DRSM-M7XXXX Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)

LS-28-1DRSM-M8XXXX All Formats

See “Band Options” on p. 2 (NOTE: Up to six bands available in the “LS-28-DRSM” series)
LS-28-1DRSM Series Options at Time of Order

Lumistar offers various frequency bands, demodulation formats, Chapter 10 Ethernet Data Streaming, Data Archive, and various decoding schemes as options in the LS-28-1DRSM series products. Ordering information is in parenthesis. Consult factory for additional details.

Pricing is dependent upon the customer selection of these options. Some examples are listed below:

- Demodulation Formats:
  - PCM/FM only (-M1), SOQPSK (-M2), PCM/FM and SOQPSK only (-M6)
  - PCM/FM, BPSK, QPSK, OQPSK, AQPSK, SQPSK, SOQPSK, and PM (-M3)
  - M3 formats plus AUQPSK (-M4),
  - BPSK, QPSK, OQPSK, SOQPSK, PM with sub-carrier (M5)
  - PCM/FM, SOQPSK and Multi-h CPM (-M7)
- CH10 Data Broadcast, Time Stamped (-C10E)
- Viterbi decoding (-V2)
- Reed-Solomon (-RS2)
- Soft Bit Decision Outputs (-SB3)
- Space Time Coding (-SC3)
- LDPC Coding (-LD3)
- Sub-carrier (-S2)
- AQPSK (-A2)
- Viterbi and Reed-Solomon Decoding (-VRS2)
- IRIG Pre-D Record/Playback (-IRP)
LS-28-DRS SERIES DUAL-CHANNEL RANGE TELEMETRY RECEIVER/COMBINERS

Dual-Channel Single Band Configurations

- **LS-28-DRS-M1X**: Multi-Symbol PCM/FM demod format
- **LS-28-DRS-M2X**: SOQPSK only
- **LS-28-DRS-M3X**: Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
- **LS-28-DRS-M4X**: Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
- **LS-28-DRS-M6X**: Multi-Symbol PCM/FM and SOQPSK
- **LS-28-DRS-M7X**: Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
- **LS-28-DRS-M8X**: All Formats

Dual-Channel Dual-Band Configurations

- **LS-28-DRS-M1XX**: Multi-Symbol PCM/FM demod format
- **LS-28-DRS-M2XX**: SOQPSK only
- **LS-28-DRS-M3XX**: Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
- **LS-28-DRS-M4XX**: Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
- **LS-28-DRS-M6XX**: Multi-Symbol PCM/FM and SOQPSK
- **LS-28-DRS-M7XX**: Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
- **LS-28-DRS-M8XX**: All Formats
Dual-Channel Tri-Band Configurations

LS-28-DRS-M1XXX Multi-Symbol PCM/FM demod format
LS-28-DRS-M2XXX SOQPSK only
LS-28-DRS-M3XXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-DRS-M4XXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-DRS-M6XXX Multi-Symbol PCM/FM and SOQPSK
LS-28-DRS-M7XXX Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-DRS-M8XXX All Formats

Dual-Channel Quad-Band Configurations

LS-28-DRS-M1XXXX Multi-Symbol PCM/FM demod format
LS-28-DRS-M2XXXX SOQPSK only
LS-28-DRS-M3XXXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-DRS-M4XXXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-DRS-M6XXXX Multi-Symbol PCM/FM and SOQPSK
LS-28-DRS-M7XXXX Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-DRS-M8XXXX All Formats

See “Band Options” on p. 2
LS-28-QRS SERIES QUAD CHANNEL RANGE TELEMETRY RECEIVER/COMBINERS

Quad-Channel Single Band Configurations

LS-28-QRS-M1X Multi-Symbol PCM/FM demod format
LS-28-QRS-M2X SOQPSK only
LS-28-QRS-M3X Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-QRS-M4X Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-QRS-M6X Multi-Symbol PCM/FM and SOQPSK
LS-28-QRS-M7X Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-QRS-M8X All Formats

Quad-Channel Dual-Band Configurations

LS-28-QRS-M1XX Multi-Symbol PCM/FM demod format
LS-28-QRS-M2XX SOQPSK only
LS-28-QRS-M3XX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-QRS-M4XX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-QRS-M6XX Multi-Symbol PCM/FM and SOQPSK
LS-28-QRS-M7XX Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-QRS-M8XX All Formats
Quad-Channel Tri-Band Configurations

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-28-QRS-M1XXX</td>
<td>Multi-Symbol PCM/FM demod format</td>
</tr>
<tr>
<td>LS-28-QRS-M2XXX</td>
<td>SOQPSK only</td>
</tr>
<tr>
<td>LS-28-QRS-M3XXX</td>
<td>Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM</td>
</tr>
<tr>
<td>LS-28-QRS-M4XXX</td>
<td>Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM</td>
</tr>
<tr>
<td>LS-28-QRS-M6XXX</td>
<td>Multi-Symbol PCM/FM and SOQPSK</td>
</tr>
<tr>
<td>LS-28-QRS-M7XXX</td>
<td>Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)</td>
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<tr>
<td>LS-28-QRS-M8XXX</td>
<td>All Formats</td>
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Quad-Channel Quad-Band Configurations

<table>
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<th>Model</th>
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<tr>
<td>LS-28-QRS-M1XXX</td>
<td>Multi-Symbol PCM/FM demod format</td>
</tr>
<tr>
<td>LS-28-QRS-M2XXX</td>
<td>SOQPSK only</td>
</tr>
<tr>
<td>LS-28-QRS-M3XXX</td>
<td>Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM</td>
</tr>
<tr>
<td>LS-28-QRS-M4XXX</td>
<td>Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM</td>
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<tr>
<td>LS-28-QRS-M6XXX</td>
<td>Multi-Symbol PCM/FM and SOQPSK</td>
</tr>
<tr>
<td>LS-28-QRS-M7XXX</td>
<td>Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)</td>
</tr>
<tr>
<td>LS-28-QRS-M8XXX</td>
<td>All Formats</td>
</tr>
</tbody>
</table>

See “Band Options” on p. 2
LS-28-DRS-EC SERIES PORTABLE DUAL-CHANNEL RANGE TELEMETRY RECEIVER/COMBINERS

Dual-Channel Single Band Configurations

LS-28-DRS-EC-M1X  Multi-Symbol PCM/FM demod format
LS-28-DRS-EC-M2X  SOQPSK only
LS-28-DRS-EC-M3X  Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-DRS-EC-M4X  Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-DRS-EC-M6X  Multi-Symbol PCM/FM and SOQPSK
LS-28-DRS-EC-M7X  Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-DRS-EC-M8X  All Formats

Dual-Channel Dual-Band Configurations

LS-28-DRS-EC-M1XX Multi-Symbol PCM/FM demod format
LS-28-DRS-EC-M2XX SOQPSK only
LS-28-DRS-EC-M3XX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-DRS-EC-M4XX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-DRS-EC-M6XX Multi-Symbol PCM/FM and SOQPSK
LS-28-DRS-EC-M7XX Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-DRS-EC-M8XX All Formats
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Dual- Channel Tri-Band Configurations

LS-28-DRS-EC-M1XXX Multi-Symbol PCM/FM demod format
LS-28-DRS-EC-M2XXX SOQPSK only
LS-28-DRS-EC-M3XXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-DRS-EC-M4XXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-DRS-EC-M6XXX Multi-Symbol PCM/FM and SOQPSK
LS-28-DRS-EC-M7XXX Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-DRS-EC-M8XXX All Formats

Dual- Channel Quad-Band Configurations

LS-28-DRS-EC-M1XXX Multi-Symbol PCM/FM demod format
LS-28-DRS-EC-M2XXX SOQPSK only
LS-28-DRS-EC-M3XXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, and PCM/PM
LS-28-DRS-EC-M4XXX Multi-Symbol PCM/FM, BPSK, QPSK, OQPSK, SOQPSK, AUQPSK and PCM/PM
LS-28-DRS-EC-M6XXX Multi-Symbol PCM/FM and SOQPSK
LS-28-DRS-EC-M7XXX Multi-Symbol PCM/FM, SOQPSK AND Multi-h CPM (ARTM Tier 0, I, II)
LS-28-DRS-EC-M8XXX All Formats
LS-26 SERIES AIRBORNE PRODUCTS

LS-26-XB  Airborne PCM/FM Receiver with Internal Bit Synchronizer

Airborne Receiver (X= Frequency Band, see page 2) with 4 IF Bandwidths and Bit Synchronizer with two 70 MHz IF outputs for external demodulation, recording, or digitization, PCM Baseband signal from the receiver section, external Bit Synchronizer input allows the unit to be used as an airborne bit synchronizer only, Data and Clock are output from the bit synchronizer

LS-26-X  Airborne PCM/FM Receiver, w/o Bit Synchronizer

Airborne Receiver (X= Frequency Band, see page 2) with 4 IF Bandwidths and with two 70 MHz IF outputs for external demodulation, recording, or digitization, PCM Baseband signal from the receiver section.

LS-26-X  Airborne Downconverter

Airborne Downconverter, (X= Frequency Band, see page 2) with 4 IF Bandwidths and with two 70 MHz IF outputs for external demodulation, recording, or digitization.

LS-26-B  Airborne Bit Synchronizer

Accepts data rates up to 20 Mbps. Provides data and clock output.

Standard models available in X = lower L (1435-1540 MHz), upper L (1710—1850 MHz) and S band (2200-2400 MHz). Custom bands available, see page 2.
LS-40-DB SERIES SINGLE-CHANNEL BIT SYNCRONIZER PRODUCTS

“DB” Models can be mounted on LS-50-D, LS-55-DD, LS-50-e, and LS-22-SE products

LS-40-DB10  Daughterboard Bit Synchronizer, 10 Mbps
LS-40-DB20  Daughterboard Bit Synchronizer, 20 Mbps
LS-40-DB25  Daughterboard Bit Synchronizer, 25 Mbps
LS-40-cP10  Compact PCI Daughterboard Bit Synchronizer, 10 Mbps
LS-40-cP20  Compact PCI Daughterboard Bit Synchronizer, 20 Mbps
LS-40-cP25  Compact PCI Daughterboard Bit Synchronizer, 25 Mbps
LS-40-P10   PCI Bit Synchronizer, 10 Mbps
LS-40-P20   PCI Bit Synchronizer, 20 Mbps
LS-40-P25   PCI Bit Synchronizer, 25 Mbps

LS-45-DB SERIES SINGLE/DUAL CHANNEL COMBINING BIT SYNC PRODUCTS

LS-45-DB20  Single Channel Daughterboard Bit Synchronizer, 20 Mbps
LS-45-DB45  Single Channel Daughterboard Bit Synchronizer, 45 Mbps
LS-45-2DB20 Dual Channel Daughterboard Bit Synchronizer, 20 Mbps
LS-45-2DB45 Dual Channel Daughterboard Bit Synchronizer, 45 Mbps
LS-45-2DB45-PD LS-45-2DB45 with Post D Combiner
### MASTER MODEL NUMBER SELECTION GUIDE

**LS-45-P SERIES SINGLE/DUAL CHANNEL COMBINING BIT SYNC PRODUCTS**

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-45-P20</td>
<td>Single Channel Daughterboard Bit Synchronizer, 20 Mbps</td>
</tr>
<tr>
<td>LS-45-P45</td>
<td>Single Channel Daughterboard Bit Synchronizer, 45 Mbps</td>
</tr>
<tr>
<td>LS-45-2P20</td>
<td>Dual Channel Daughterboard Bit Synchronizer, 20 Mbps</td>
</tr>
<tr>
<td>LS-45-2P45</td>
<td>Dual Channel Daughterboard Bit Synchronizer, 45 Mbps</td>
</tr>
<tr>
<td>LS-45-2P45-PD</td>
<td>LS-45-2DB45 with Post D Combiner</td>
</tr>
</tbody>
</table>

**LS-45-S SERIES SINGLE/DUAL CHANNEL COMBINING BIT SYNC PRODUCTS**

* (Serial I/O, no PCI bus control)*

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>LS-45-S20</td>
<td>Single Channel SERIAL I/O Bit Synchronizer, 20 Mbps</td>
</tr>
<tr>
<td>LS-45-S45</td>
<td>Single Channel SERIAL I/O Bit Synchronizer, 45 Mbps</td>
</tr>
<tr>
<td>LS-45-2S20</td>
<td>Dual Channel SERIAL I/O Bit Synchronizer, 20 Mbps</td>
</tr>
<tr>
<td>LS-45-2S45</td>
<td>Dual Channel SERIAL I/O Bit Synchronizer, 45 Mbps</td>
</tr>
<tr>
<td>LS-45-2S45-PD</td>
<td>LS-45-2S45 with Post D Combiner</td>
</tr>
</tbody>
</table>

*Specifications are subject to change. Please verify the latest specifications at time of order.*
MASTER MODEL NUMBER SELECTION GUIDE

LS-40-B MODULAR BIT SYNCHRONIZER PRODUCTS

- **LS-40-B10**  Drive Bay Bit Synchronizer, 10 Mbps
- **LS-40-B20**  Drive Bay Bit Synchronizer, 20 Mbps
- **LS-40-B25**  Drive Bay Bit Synchronizer, 25 Mbps

LS-45-B MODULAR BIT SYNCRONIZER PRODUCTS

- **LS-45-B20**  Single Channel Modular Bit Synchronizer, 20 Mbps
- **LS-45-B45**  Single Channel Modular Bit Synchronizer, 45 Mbps
- **LS-45-2B20** Dual Channel Modular Bit Synchronizer, 20 Mbps
- **LS-45-2B45** Dual Channel Modular Bit Synchronizer, 45 Mbps
- **LS-45-2B45-PD** LS-45-2B45 with Post D Combiner

Specifications are subject to change. Please verify the latest specifications at time of order.
LS-44-QBS Series Quad Rack-Mount Bit Sync/Frame Sync, 25 Mbps

LS-44-QBS-1D  Rack Mount Bit Synchronizer (single channel) with DOS Software
LS-44-QBS-2D  Rack Mount Bit Synchronizer (dual channel) with DOS Software
LS-44-QBS-3D  Rack Mount Bit Synchronizer (3 channel) with DOS Software
LS-44-QBS-4D  Rack Mount Bit Synchronizer (4 channel) with DOS Software
LS-44-QBS-1W  Rack Mount Bit Synchronizer (single channel) with Windows Software
LS-44-QBS-2W  Rack Mount Bit Synchronizer (dual channel) with Windows Software
LS-44-QBS-3W  Rack Mount Bit Synchronizer (3 channel) with Windows Software
LS-44-QBS-4W  Rack Mount Bit Synchronizer (4 channel) with Windows Software

Keyboard Display Units

LS-44-KD  1U Keyboard/Display
LS-44-KDS  1U Keyboard/Display with KVM Switch
LS-50 SERIES PCI DECOMMUTATION PRODUCTS

LS-50-D  Multi-function PCI PCM Decom w/ TCR, TCG, PCM Sim/BERT, PCM Decom
LS-50-e  PCI-e Multi-function PCM Decom w/ TCR, TCG, PCM Sim/BERT, PCM Decom
LS-55-DD Dual Channel PCI Multi-Function Decom
LS-50-cP Multi-function PCM Decommutator, Compact PCI
LS-55-cP Dual Channel PCM Decommutator, Compact PCI

LS-71 DAC PRODUCTS

16 or 32 Channel - supplied with DAC output mating connector and cable assy for LS-50

LS-71-P16  PCI 16-Channel A/D Converter with one word selector - supports one LS-50 Decom
LS-71-P16D PCI 16-Channel A/D Converter with two word selectors - supports two LS-50 Decoms
LS-71-P32  PCI 32-Channel A/D Converter with one word selector - supports one LS-50 Decom
LS-71-P32D PCI 32-Channel A/D Converter with two word selectors - supports two LS-50 Decoms
LS-71-PA16 19" BNC panel with 16 Channel Breakout Cable Assembly
LS-71-PA32 19" BNC panel with 32 Channel Breakout Cable Assembly
Software Options

LDPS        Software for setup, control, and display of receivers, bit syncs, decoms, and DACs
LDPS-Pro    Software for setup, control, and display of receivers, bit syncs, decoms, and DACs and CVSD voice decoding, h.261 video decoding, IRIG 106 Chapter 8, 2D and 3D maps, LDPS-Pgm  Pro Software Program license for an unlimited number of server/client computers for a single program for a specific customer.

Custom Integrated Systems

Contact Lumistar to discuss your Specific Requirements. We will tailor a system to meet your requirements using our numerous card level and/or third-party products.

Example: Model Number “LS-84-RBDRBD-R4” is a Dual Channel Telemetry Receiving System with two LS-25 Receivers, two LS-40-DB Bit Syncs & two LS-50 Decoms in a 4U Rack mount chassis. The possibilities of combinations of TM product functionality are almost endless!

Contact Factory for all detailed specifications of all Custom Integrated Systems.