



6-Channel Low Speed Data Module



DESCRIPTION

- The LS-6 I/O module provides up to six low speed data channels. The module operates opposite another LS-6 module in a remote Megaplex unit to transmit low speed data (from 0.3 to 64 kbps), end-to-end, through the E1/T1 network.
- LS-6 multiplexes the low rate user channels into a single composite rate that is placed over standard main link bandwidth units (64 kbps timeslots). The multiplexing technique is very efficient, with very little overhead, maximizing the utilization of the main link timeslots. The composite channel uses from 1/2 (32 kbps) to six (384 kbps) timeslots, depending on the total payload of the six user channels.
- The six data channels are designed for synchronous operation. Alternatively, Channels 1 and 2 can be configured for asynchronous operation. The async to sync conversion is performed according to ITU-T V.22.
- The user channel data rates can be independently selected out of three groups, where all the standard speeds between 0.3 to 64 kbps (57.6 for async) are supported. The only restriction regarding rates is that each pair of consecutive channels must work with rates from the same group.
- The interface of the six user channels is V.24/RS-232, DCE-type, for connection to DTE equipment. A cross-cable can be used for conversion to DTE-type.
- Each sync channel can be configured to operate in either DCE or External-DCE timing modes. External-DCE mode is for tail-end applications.

FEATURES

- Multiplexes up to six low speed data channels
- Selectable data channel configurations:
 - Six sync
 - Four sync + two async
- Selectable channel data rates from 0.3 to 64 kbps (57.6 kbps for async)
- Selectable composite data rates: 32, 56, 64, 128, 256, or 384 kbps
- Selectable clocking modes for sync channels: DCE or External-DCE
- Enhanced diagnostics: BERT, local and remote loops for both sub and composite channels
- Fits into any I/O slot of MP-2000/2004 or MP-2100/2104 chassis

- All six channels are connected through a single 68-pin high-density connector, enabling connection to a distribution frame. An octopus cable with six 25-pin connectors can be used to connect each channel directly to separate DTE equipment (see *Ordering*).
- For diagnostics, local and remote loopbacks can be run on either individual channels or on the composite channel. These enable the user to verify the local connection to the channel and the end-to-end path. Also supported are BERTs, which can be used to evaluate the transmission path between the local and remote channels.
- The Megaplex management system can configure the LS-6 on the local site, and also provide remote management for the LS-6 on the remote site.

LS-6

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SPECIFICATIONS

- **Number of Channels**
Six
- **Operation Modes**
Sync (all channels) or Async (available for CH1 and CH2 only)
- **Channel Interface**
V.24/RS-232, DCE-type for direct connection to a DTE
- **Channel Data Rates**
 - Group 1: 0.3, 0.6, 1.2, 2.4, 4.8, 9.6, 19.2 and 38.4 kbps (for sync and async);
 - Group 2: 7.2, 14.4, 28.8 and 57.6 kbps (for sync and async);
 - Group 3: 8, 16, 32, 48, 56, 64 kbps (for sync only).

Both channels of any pair (i.e., CH 1-2, 3-4, or 5-6) must work with rates from the same group.
- **Composite Channel Data Rate (Timeslots Used)**
32 (½), 56 (1), 64 (1), 128 (2), 256 (4), 384 kbps (6 timeslots)
- **Async to Sync Conversion**
ITU-T V.22 bis compatible
- **Async Parameters**
Data bits: 6,7,8 or 9, user-selectable
Stop bit: 1
Parity: transparently transferred
- **Connector**
High-density 68-pin female Data connector, for all six channels
(26-pin Voice connector is currently not in use)
- **Clock Modes**
(Soft-selectable for each sync channel)
DCE:
LS-6 channel provides both RX and TX clocks to the user DTE
External-DCE (DTE1):
LS-6 channel provides RX clock to the user while receiving TX clock from the user. Used for tail-end applications
- **Control Signals**
Local support:
RTS, CTS, DSR, DCD, DTR
User-selectable per channel:
End-to-end of RTS-DCD, DTR-DSR, or local support only
- **Diagnostics**
Loopbacks and tests can be run on both the user channels and the composite channel:
 - Local loop
 - Remote loop
 - BERT
- **Power Requirements**
1.5 to 5W (min to max)
- **Configuration**
Programmable via the Megaplex management system

ORDERING

MP-2000M-LS-6

Six-channel low speed data module for MP-2000/2004

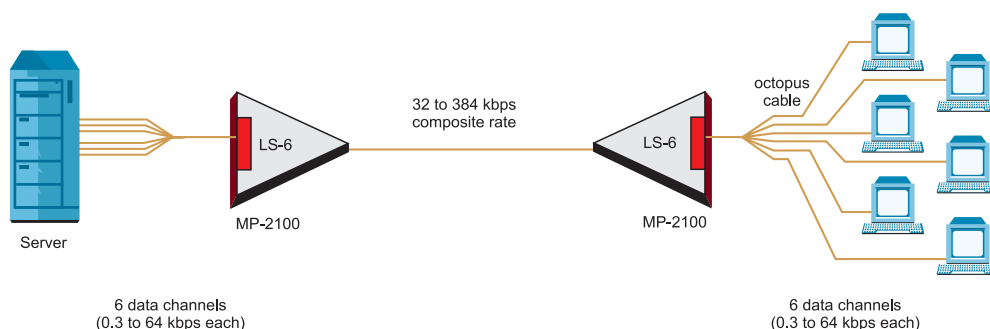
MP-2100M-LS-6

Six-channel low speed data module for MP-2100/2104

CBL-LS6

Octopus cable with six 25-pin D-type male connectors, for connecting the LS-6's single 68-pin connector directly to individual DTE devices. Cable length is 2 m (6 ft).

APPLICATION



data communications

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