

CARP-0040

Multi-Stream Data Capture Gateway

E1/PRI, LVDS and RS-422A real-time capture for distribution via Gigabit Ethernet



CARP-0400 Series captures up to 12 input streams for distribution via Gigabit Ethernet for real-time processing & analysis applications.

The following input modules are available.

- 4-stream LVDS serial data + clock - 100 kbits/s to 60 Mbits/s
- 4-stream RS-422A serial data + clock - 20 kbits/s to 15 Mbits/s
- 4-stream E1/PRI (G.703/G.704) - 2048 kbits/s

Modules can be specified in any combination of the above, up to the maximum of 3 modules.

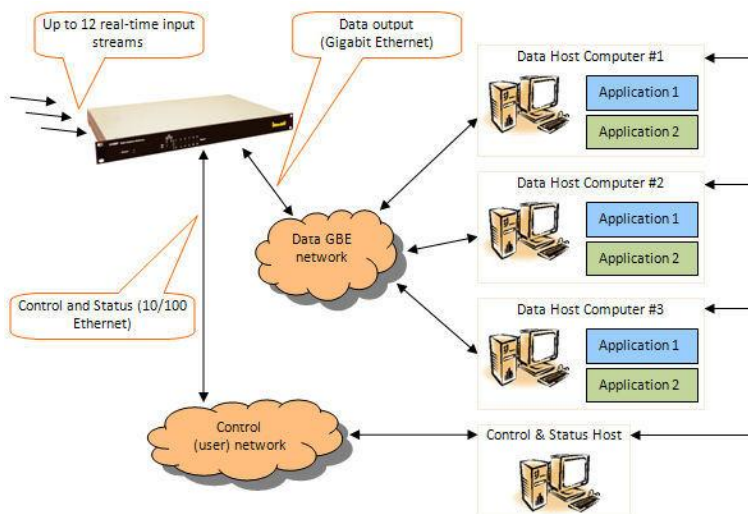
Each LVDS and RS-422A input can be set to operate with user-specified framing (byte-alignment), or unframed data. Each E1/PRI input can be set to operate with G.704 framing, or unframed.

Data Distribution

Input streams are distributed over the user's Gigabit Ethernet data network using TCP/IP protocol.

The target IP addresses are set via the 10/100MHz Ethernet Control and Status Port. Any combination of individual and group IP addressing is supported for transferring data to one or more workstations.

CARP associates individual source port numbers to each input stream. Data streams are transferred once the receiving workstations have open socket connections to one or more source ports and provide the destination port for each stream.



LVDS Input

Serial Differential
 100 kbits/s to 60 Mbits/s
 4 x streams per Input Module
 RJ-45 connector per stream
 Unframed, or User-defined framing

RS-422A Input

Serial Differential
 20 kbits/s to 15 Mbits/s
 4 x streams per Input Module
 RJ-45 connector per stream
 Unframed, or User-defined framing

E1/PRI Input

2.048 MHz, HDB3 encoded
 ITU G.703 signal format
 4 x streams per Input Module
 RJ-45 connector per stream
 G.704 framing, or unframed

Data Distribution

1000BaseT Gigabit Ethernet port
 TCP/IP protocol

Each input stream can be set to for an individual target IP address

Groups of input streams can be set to a single IP address

Each input stream is available via its own source port address

Control and Status

10Base-T/100Base-TX Ethernet port
 Signal presence indication
 Clock frequency detection
 (LVDS and RS-422A only)
 Signal and clock detection
 Clock input and output polarity selection
 Input enable/disable and loop-back control

User defined framing

up to 32-bit Sync words
 up to 16Mbits frame lengths

Test Mode

Generates dummy data at selectable bit-rates
 Enables characterisation of network bandwidth prior to capturing live data streams

Software

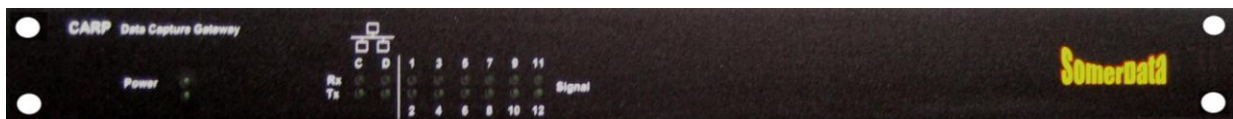
Control & Status software (Java)
 Test data verification software (Linux)

Generator Option

Separate 1U unit
 Generates up to 12 streams
 Available with E1/PRI, LVDS and RS-422A modules
 Pattern selection for each stream

Provision for future options and expansion

additional input signal formats
 HDLC de-stuffing
 E1 timeslot extraction



Front Panel



Rear Panel (showing one of each input module type)