



HD SD Caption Decoder MODEL LEI-599

MULTI FORMAT

- ◆ CC1, CC2, CC3, CC4
- ◆ 3G/HD/SD SDI
- ◆ VBI and VANC
- ◆ GPI Enabled/Disabled
- ◆ Caption Color Changing Options
- ◆ 20x2 Character LCD Display
- ◆ Power Down Bypass
- ◆ Programmable Power-up Settings



The LEI-599 will accept transport streams with embedded closed captions from either VBI (line21/22) or VANC (SMPTE 334 Caption Data Packet {CDP}) and decode them. The captions will then be “burnt” into the outgoing 3G/HD/SD-SDI stream so that the captions now appear during active video. Captions which appear in active video are called “Open” captions. The captioning channels that can be decoded (“Open”) are CC1, CC2, CC3, and CC4.

Every effort is made to keep the latency between the open and closed captions to a minimum. The decoder options can be viewed on the front panel 40 character (2-line) LCD display. A front panel navigation switch is used to scroll through the menus and select which of the caption channels that is to be displayed. The navigation switch will also access the LEI-599 setup menus.

The signal processing starts with the input SDI data being equalized and de-serializes to 20-bit parallel data streams. Any closed caption data in the video data stream will be used to select appropriate characters from a custom on-board character ROM. The characters are then digitally mixed into the visible areas of the video, just as they might appear on a typical caption enabled receiver.

The new data stream, with the visible captions, are then re-serialized and re-clocked and output as serial data in the exact same format of the input transport stream. There are no scaling or format conversions used in this device. Essentially, as applied to standards and formats, all outputs follow the input format and standards.

The LEI-599 will have one optically isolated GPI input for turning open captions on/off. The unit will pass ANC data untouched including audio to the output. In the case of power failure the input data stream will be switched, unaltered, to a dedicated output. This provides an uninterrupted data path in critical path applications.

SPECIFICATIONS

LEI-599

Signal Input:

Number of Inputs: 1
Connector: BNC per IEC 61169-8 Annex A
Impedance: 75 ohms - terminating
Standard Format: 480i, 576i, 720p, 1080i, 1080p (including 3G)
Quantization: 10-bits
Specified Requirements: VBI (Line21/22) VANC (334 CDP) CC1-4

Outputs:

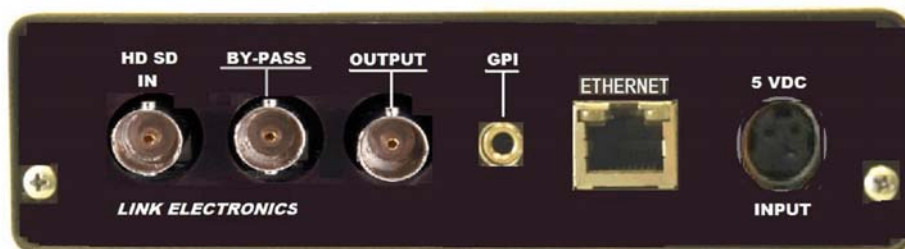
3G/HD/SD SDI Outputs with open captions: 2
Output Standard: Follows Input
Quantization: Follows Input
Connectors: BNC per IEC 61169-8 Annex A
Impedance: 75 ohms
Signal Level: 800mV p-p nominal
DC Offset: 0V
Rise/Fall Time: 200ps nominal
Overshoot: < 10% of amplitude
Return Loss: > 15dB up to 1.5Gb/s
Wideband Jitter: < 0.2UI
General Purpose Interface (GPI) Input: 1
Ethernet: Future Use

Power/ Environment:

External Power Supply: +5 VDC
Ambient: 0° C to 40° C
Relative Humidity: <95% non-condensing
Form-Factor: 1RU, 1/3 rack wide, Chassis

Mechanical:

Height: 1.0 Inch.
Width: 5.5 Inch.
Length: 9.25 Inch.
Weight: 2.25 Lbs.



External Power Supply