



MODEL LEI-599D HD SD Caption Decoder

FEATURES

- ◆ CEA-608 CC1, CC2, CC3, CC4
- ◆ CEA-708 S1, S2, S3, S4, S5, S6
- ◆ Vchip Icon Insertion
- ◆ HD/SD SDI
- ◆ VBI and VANC



- ◆ Caption Color Changing Options
- ◆ Closed Caption Deletion
- ◆ Power Down Bypass
- ◆ Programmable Power-up Settings

The LEI-599D will accept HD/SD SDI 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 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, CC4, S1, S2, S3, S4, S5 and S6.

The VBI and 708 VANC closed captions can be deleted on the output. This can be used to remove unwanted captions from the SDI stream or to make sure that captions will not get double decoded when decoding with this device.

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-599D can also be used to insert Vchip icon onto the active video. It will read Vchip from Extended Data Services (XDS) for Motion Picture Association (MPA), U.S. TV parental Guideline, Canadian English Language, and Canadian French Language Rating Systems and insert the appropriate Vchip Icon, including U.S. TV flags (FV, D, L, S, and V). The Vchip icon can be set to be inserted all the time, or by a timed display.

The LEI-599D has a GPI with dry contact relay for timed (30 sec to 10 min in 30 sec steps) closed caption presence detection. 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-599D

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
 Quantization: 10-bits
 Specified Requirements: VBI (Line21/22) CC1-4, VANC (334 CDP) CC1-4 & S1-6

Outputs:

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): Dry Contact Relay Rated at 1A28V
 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

- | | |
|----|---------|
| 1. | Contact |
| 2. | Ground |
| 3. | Contact |

