



# LEI-599

## Closed Caption Decoder



The LEI-599 is an HD/SD-SDI closed caption decoder that will accept embedded closed captions VBI or VANC 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 as open captions. The data from the selected decoded captions are sent out the Ethernet port for data recovery. This data can be used for monitoring, to make a caption file, or to encode another stream. The LEI-599 can also be used to insert V-chip icon onto the active video and can be set to be inserted all the time, by a time display, or GPI controlled. The unit will pass ANC data untouched including audio to the output.

### Decodes CC1-CC4 or S1-S6

The LEI-599 can decoded the following channels or services; CC1, CC2, CC3, CC4, S1, S2,S3, S4, S5 and S6. The data from the selected decoded captions are also sent out the Ethernet port for "data recovery". This data can be used for monitoring, to make a caption file, or to encode another stream. The LEI-599 latency between the open and closed captions has had every effort made to keep it to a minimum. The signal processing starts with the input SDI data being equalized and de-serializes to 20bit 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 SDI 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.

### V-Chip Icon Insertion

The LEI-599 can also be used to insert V-chip icon onto the active video. It will read V-chip 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 V-chip Icon, including U.S. TV flags (FV, D, L, S, and V). The V-chip icon can be set to be inserted all the time, by a timed display, or GPI controlled.

### Exceptional Technical Support

The LEI-599 Closed Caption Decoder is backed by the Link Electronics standard 10-year warranty and 24/7 free customer support. It meets the innovative, high performance, flexibility, and reliability requirements of all Link Electronics products.

## Features

- Data Recovery Through Ethernet
- GPI Remote Decoder on/off
- Field Upgradeable

- Caption Deletion
- V-Chip Icon Insertion
- Changeable Open Caption Attributes

- Power Off Bypass
- VBI or VANC for SD
- Decodes EIA-608 CC1-4
- Decodes EID-708 S1-6



External Power Supply

# LEI-599

## Closed Caption Decoder



### 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

### Connectors:

General Purpose Interface (GPI) Input: ..... Mini 3.5 mm Female Connector  
 Ethernet: ..... Open Caption Generator, Caption Data Recovery & Field Upgrading

### Environment/Power (PWT-400):

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: ..... 1.00 inches  
 Width: ..... 5.5 inches  
 Depth: ..... 9.25 inches  
 Weight: ..... 2.25 Lbs

The manufacture reserves the right to change specifications without notice



2709 State Hwy 248 Branson, MO 65616  
 linkelectronics.com

Phone: (800) 776-4411