



LEI-590

Closed Caption Generator and Decoder



The LEI-590 is a useful device for inserting open captions for live events, such as sporting events or live video conferencing. The LEI-590 accepts standard 608 caption data or text data via an IP interface. It then generates open captions from that caption data (IP) and outputs the video with open captions. This unit can also be utilized as a HD/SD/SDI closed caption decoder. The LEI-590 is a more cost effective solution than a closed caption encoder/decoder with only open captions are needed. This unit will pass all ANC data untouched.

Data Recovery Through IP Interface and Easy Caption Deletion

The LEI-590 will decode the input SDI video with embedded closed caption from either VBI (line 21/22) or VANC (SMPTE 334 Caption Data Packet (CDP)). The captions will then be “burnt” into the outgoing HD/SD-SDI stream and now appear as “Open” captions during active video. The data from the decoded captions can be 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-590 has a feature that allows the VBI and 708 VANC closed captions to be deleted from the output video. The caption deletion feature can be used to remove unwanted captions from the SDI video and also prevent the captions from being double decoded.

Decodes CC1-CC4 or S1-S6 and V-Chip Icon Insertion

The LEI-590 latency between the open and closed captions has been kept to a minimum. The signal processing starts with the input SDI video 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, re-clocked, and output in the exact same format as the input transport stream. No scaling or format conversions are used in this device. Essentially, as applied to standards and formats, all outputs follow the input format and standards. The LEI-590 can also be used to insert V-chip icon onto the active video. It reads the 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-590 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

- Generates Open Captions via IP Interface
- Decodes CC1-4 or S1-6
- Caption Data Recovery via IP Interface
- 4 Data recovery and Generator Modes

- GPI remote Decoder on/off
- Changeable Open Caption Attributes
- Relocates Open Captions on Screen

- Caption Deletion
- V-Chip Icon Insertion
- IP Address Display
- Field Upgradeable
- Power off Bypass
- VBI or VANC for SD



External Power Supply

LEI-590

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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



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