PORTABLE CAPTION ENCODER-DECODER DIGITAL OR ANALOG

MODEL ENC-896

FEATURES

- Encoder
- Decoder
- Data Recovery
- Field 1 or Field 2
- Analog Open CC Out
- Weather Lift, User Defined
- Analog Closed CC Out
- Optional Modem
- SDI I/O
- Analog Composite I/O
- Power-Up Mode, User Defined
- Caption & Text
- Two Composite Outputs
- RS-232C/422 Controlled
- V-Chip Compatible
- Power Down Protect
- Auto-Detect, PAL/NTSC

The ENC-896 is both a Closed Caption Encoder and Decoder capable of inserting and decoding caption and text data on NTSC, PAL, Analog Y/C, RGB, YUV, and SDI.

Caption and Text data may be inserted in either field of the Vertical Blanking Interval. In addition, data on the incoming video signal may be recovered from either field of the VBI. This incoming data may be displayed as Open Captions, using the built-in Closed Caption Decoder, and captured by a computer utilizing the ENC-896’s serial data port. Each of these important functions, Encoding, Decoding, and Data Recovery may be done simultaneously.

The Closed Caption Decoder’s functions may be controlled from the front panel while the Encoder and Data Recovery functions are controlled via the serial data port, on the SDI and analog composite and the open caption outputs.

Inputs and outputs are provided for, not only NTSC and PAL, but also Analog Y/C, RGB, YUV, and SDI. The power-loss feature by-passes the analog and SDI when AC power to the ENC-896 fails.

In response to the FCC mandated requirements, captions shall not interfere with emergency crawls.

The ENC-896 incorporates a weather-lift feature that moves the captioning up 1 to 3 lines whenever a contact-closure is detected on it’s GPI input.

For remote captioning applications, a second serial port is available as a modem input. Both serial ports may be configured for RS-232 or RS-422 I/O. Front panel DIP switches are provided to select the baud rate selections of 1200, 2400, 4800, and 9600 bps.

Modem speeds are 1200 or 2400 baud. The modem takes priority over the serial port, and when the modem hangs up, the ENC-896 is restored to the last mode left by the modem.

Front panel LED’s show the unit status and the presence of serial data. A pair of front panel push-buttons allow the user to run an encoded test message or to place the unit in by-pass mode.

The ENC-896 is ready for V-Chip technology. LINK Electronics is incorporating this technology in the firmware of the ENC-896. The ENC-896 handles the automatic repetition of the “V-Chip” data and can interleave it with existing Line 21 Closed Caption data.
MODEL ENC-896 CAPTION ENCODER/DECODER
DIGITAL AND ANALOG SPECIFICATIONS

ANALOG INPUT:
NTSC/PAL/RGB/YUV/YC:
Inputs: .................................... One
NTSC / PAL / G / Y Level: .......... 1.0Vpp ±4dB
RB / UV / C Level: .......... 0.7Vpp (100% Sat.) ±4dB
Impedance: .......................... 75Ω, Terminated
Connectors: ............................ BNC (x3)
Return Loss: .......................... 40dB
Maximum DC on Input: .............. 3.2V DC
Common Mode Range: ............... 6.4V p-p

SDI INPUT:
Number: ............................... One
Standard: ............... SMPTE 259M-C 270Mb/s
Connector: ......................... 75Ω BNC
Impedance: .......................... 75Ω ±1%
Return Loss: ........................ >18dB to 270MHz
Signal Level: ....................... 800mV ±10%

OUTPUTS:
NTSC/PAL/RGB/YUV/YC:
Number of Outputs: .................. Two
NTSC / PAL / G / Y Level: .......... 1Vp-p ±1dB
RB / UV / C Level: .......... 0.7Vpp (100% Sat.) ±1dB
Insertion Gain: ....................... Unity
Impedance: .......................... 75Ω
Connectors: ............................ BNC
Bandwidth: .......................... 26MHz
Tilt: ................................. <1% ref. 30Hz square wave
Hum: ................................. >70dB, 1.0Vp-p
Overshoot & Ringing: ............... <1%
Propagation Delay: ................. 30ns ±5%
S/N Ratio: .......................... >60dB
Differential Gain: ..................... <0.1%
Differential Phase ................... <0.1°
DC Offset: .......................... <0.2Vdc

SDI OUTPUT:
Number: ............................... Two (2)
Standard: ....................... SMPTE 259M-C 270Mb/s
Connector: ......................... 75Ω BNC
Impedance: .......................... 75Ω ±1%
Return Loss: ........................ >18dB to 270 MHz
Signal Level: ....................... 800mV ±10%

DECODER:
Output: ............................... Two
Level: ............................... 1.0Vpp ±1dB
Character Video: ..................... 90 IRE
Character Background: .............. 10 IRE
Frequency Response: ............... -3dB to 26MHz
Differential Gain: ..................... <0.1%
Differential Phase ................... <0.1°
DC Offset: .......................... <0.2Vdc
Line Rate Tilt: ....................... <0.1%
Field Rate Tilt: ........................ <0.1%

WEATHER-LIFT (GPI) INPUT:
Open Circuit Voltage: ............... 5.0V DC
Maximum Source Current: .......... 0.5mA
Maximum Overload Input .......... +12V to -7V

FRONT PANEL CONTROLS:
AC Power: .......................... On/Off
By-Pass ......................... Push/Push, Maintained
Test: ............................... Push/Push, Momentary
LED's: .............................. Video Presence
Modem Status: R,I,O,H,C, Serial Data, Pedestal

LCD DISPLAY:
Encoding: ......................... Field 1 or Field 2
Decoding: ......................... CC1-4, T1-T4, & XDS
Standard: ........................ NTSC or PAL, Analog or Digital
Baud Rate: ........................ 1200, 2400, 4800 or 9600

REAR PANEL:
Modern Connection: ............... 9 Pin D wired as DTE
Computer Connection: .......... 9 Pin D wired as DCE

ENVIRONMENTAL:
Temperature: ..................... 0° to 50° C (ambient)
Humidity: ......................... 10% to 90% non-condensing
Power: .............................. 24 Watts
AC Input: ...................... 120/240VAC (±10%) 50/60Hz

MECHANICAL:
Height: .............................. 2.25 Inches
Width: .............................. 14.5 Inches
Depth: .............................. 10 Inches
Weight: .............................. 3.5 Lbs.