

DI470 Digital Smart Encoder

Standard Definition NTSC EIA-608B encoder used to encode closed captions into a video signal.

The Model DI470 Digital Smart Encoder is the standard for Broadcast Closed Caption Encoders. This sister unit to the EN470 Smart Encoder III provides the same functionality with a SDI NTSC interface. It can recover existing Line 21 code from the input video signal and insert locally supplied captions and text into Line 21 of either field, XDS data into field 2 or process both fields simultaneously. The EN470 has three RS232/RS422 Data Ports and one fixed RS422 Port. The user may configure these Data ports according to their operational needs. The encoder comes with one built in Modem and provision for a second internal Modem. The modems can be used as alternate ports in addition to the three RS232 ports.

ENCODER DIGITAL INPUT VIDEO CHARACTERISTICS

Format	270 Mbits/s component. Complies with SMPTE 259M and CCIR 656.
Video Input Level	800 mV p-p \pm 10%, Out 1 bypass protected
Input Impedance	75 Ohms
Input Return Loss	\geq 18dB, 1-270 MHz
Input S/N Ratio	Unit will function down to 25 dB ratio (CCIR weighted) with typically one error per row at that level

ENCODER DIGITAL OUTPUT VIDEO CHARACTERISTICS

Format	270 Mbits/s component. Complies with SMPTE 259M and CCIR 656.
Output Impedance	75 Ohms
Output Level	800 mV p-p \pm 10%
Output Return Loss	\geq 18dB, 1-270 MHz.
Output Jitter	< 300 pS

DATA INPUT CHARACTERISTICS

Data Ports	Three Ports via RJ 11 jacks
Serial Data Format	RS232C, settable between 1200-38400 Baud, typically 7 data bits, odd parity, 1 stop bit.
Modem	Provision for 2 modems, full duplex operation over PSTN per WECO 212A.

FRONT PANEL CONTROLS & DISPLAY

Display	2 x 24 LCD, back-lit display showing unit operating conditions.
Power (On/Off)	Push-button switch with integral circuit breaker. White band indicates Off state.
Encoder ON	Push-button switch controls bypass state. LED lit for non-bypassed state.
Reset	Flush Push-button switch, resets the encoder.

REAR PANEL CONNECTORS

SDI In	BNC connector, internal 75 Ohm termination when not by-passed.
SDI Out 1	BNC 75 Ohm connector, unity gain output. bypass protected, external termination required.
SDI Out 2	BNC 75 Ohm connector, unity gain output. not bypass protected, external termination required.
Data	Six RJ 11 Jacks for P1, P2, P3, Ma, Mb and VTR Control
Power	Standard captive 3-wire line cord, 5 feet long.

PHYSICAL CHARACTERISTICS

Height	1.75 inches (4.4 cm)
Width	19 inches (48.3 cm)
Depth	10 inches (25.4 cm)
Mounting	Designed for rack mounting with or without chassis slides.
Weight	9 lbs. (4.1kg)
Ambient Operating Temp	0°C, +50°C

POWER REQUIREMENTS

Line Frequency	50/60 Hz
Line Voltage	117 VAC 10%
Line Current	0.3 A maximum
Input Power	36 W
Circuit Protection	Internal to On/Off switch, 0.4 A.