ENC6801+D

SDI Video Encoder, Q-SEE™-Compliant

The ENC6801+D encoder is a high-precision, 12-bit digital encoder that supports NTSC, PAL-B and PAL-M standards.

Standard selection is automatic for 525-line NTSC and 625-line PAL standards. The high-quality encoding is ideal for use in the primary broadcast path, as well as for monitoring purposes.

Part of the 6800+™ processing frame, the ENC6801+D module can be controlled manually via card-edge controls, or controlled and monitored via the CCS Navigator™ software application, HTTP web browser, or third-party SNMP-based control applications. The module is Q-SEE™-compliant, allowing for direct thumbnail monitoring when installed in an Ethernet-equipped 6800+ frame.

Features

- Line synchronization within a three-line window
- Encodes 4:2:2 digital video into a composite analog signal
- 12-bit digital internal processing, output over-sampled at 54 MHz
- Provides four composite outputs and two SDI reclocked outputs
- Automatic selection between NTSC, PAL-M and PAL-B standards, with settings shadowed and restored
- Genlock input on module or frame genlock can be used for reference
- Color-frame locked if used with external Genlock
- Jitter removal
- EDH detection
- Vertical blanking field/line/mode control:
- Line 10 to 21 (NTSC/PAL-M), lines 6 to 23 (PAL-B)
- Adjustable level controls (luminance, chrominance, black)
- Adjustment for ±180° chrominance phase
- SCH offset (0/180 for NTSC, 0/90/180/270 for PAL)
- Pedestal on/off selection (with starting line selection)
- Supports card-edge and remote control of module (via CCS Navigator, web browser and third-party SNMP-based control applications)

Specifications

Specifications and designs are subject to change without notice

SDI INPUT	
Standards	SMPTE 259M-C, 270 Mb/s, 525/625 component
Connector	BNC per IEC 169-8
Impedance	75 ohms
Return Loss	>18 dB to clock frequency
Signal Level	800 mV ±10%
CMRR	30 V pk-pk, up to 60 Hz
Equalization	Automatic up to: >23 dB, 259M-C type

SDI OUTPUT	
Standards	SMPTE 259M-C, 270 Mb/s, 525/625 component
Number	2
Connector	BNC per IEC 169-8
Impedance	75 ohms
Return Loss	>18 dB to clock frequency
Signal Level	800 mV ±10%
DC Offset	0 V ±0.5 V
Drive Capability	Up to 250 m for Belden 8281

COMPOSITE ANALOG OUTPUTS	
Standards	NTSC, PAL-B, PAL-M
Number	4
Impedance	75 ohms
Return Loss	>40 dB to 5.75 MHz
Quantizing	12-bits
Frequency Response	±0.15 dB to 5.5 MHz
Differential Gain	<1% (typically <0.5%)
Differential Phase	<1° (typically <0.5°)
DC Offset	±5 mV
Chroma/Luma delay	<1.5 ns
Chroma/Luma gain	±1.5%
Luma Non-linearity	<0.2%
Signal to Noise	>60 dB RMS with bandwidth 10 kHz to full
Vertical Blanking	10 to 21 lines for NTSC for both fields (field 2: 272 to 283) 6 to 23 lines for PAL for both fields (field 2: 318 to 335)

REFERENCE INPUT	
Level	1 V pk-pk
Signal Type	Analog composite NTSC/PAL-B
Connector	BNC
Impedance	75 ohms
Return Loss	>40 dB to 6 MHz
Power Consumption	6.7 W

Ordering Information

ENC6801+D	SDI to NTSC/PAL encoder, module and double-slot rear connector for use in FR6802+ series frames, Q-SEE-compliant

Images/Diagrams