DSE24A
Digital Signage MPEG-2 Encoder with QAM Output

The **DSE24A** is a new and improved, single channel HD encoder with RF QAM and IP outputs. The unit encodes an uncompressed video source from devices with HDMI, high-resolution component, composite or VGA outputs. The **DSE24A** encodes the incoming video to MPEG-2, and it is then internally connected to a QAM modulator and low-noise upconverter.

The **DSE24A** comes as a small, modular desktop model, and may also be rack-mounted in just 1RU of height by using the optional 19" rack mounting panel. Control and access is through a GUI-based menu via Web browser.

Distribution is over legacy coaxial networks. This provides instant access to an extensive network of digital displays capable of viewing valuable ad-based or informational video in a vibrant high-definition format.

Features

- Receives High-Resolution Component, Composite, VGA, or HDMI (non-HDCP content-protection) from one video source
- QAM and IP Outputs
- Digitally Encodes to MPEG-2
- Encodes to Resolutions of 480i, 720p, or 1080i
- Audio Encoding to Dolby® Digital
- Supports Closed Captioning
- GUI-based Remote Network Control and Monitoring
- Desktop Model

Model	Item #	Description
DSE24A	1002571A	Digital Signage MPEG-2 Encoder with QAM Output
DSE24A Rack Panel	1002565A	Rack Mount Panel for (2) DSE24A Encoders

DSE24A Digital Signage MPEG-2 Encoder with QAM Output Item # 1002571A

INPUT

Component

Connector(s):	3x RCA for Video (Y, Pb, Pr)
Video Resolution:	480i, 720p, & 1080i
Video Aspect Ratio:	4:3 & 16:9
Audio:	2x RCA for Analog Audio (L, R) 1x RCA for Digital Audio (PCM)

HDMI

Connector(s):	1x HDMI
Video Resolution:	480i, 720p, & 1080i
HDCP Encryption:	Not Supported
Audio:	Embedded PCM & pass-thru Dolby® Digital only

VGA

Connector(s):	2x Female VGA (Input + Loop-through Output)
Video Resolution:	640x480 @ 60 fps 800x600 @ 60 fps 1024x768 @ 60 fps
Audio:	2x RCA for Analog Audio (L, R) 1x RCA for Digital Audio (PCM)

Composite

Connector(s):	1x RCA for Video (Y)
Video Resolution:	480i
Audio:	2x RCA for Analog Audio (L, R) 1x RCA for Digital Audio (PCM)

ENCODING PROFILE

Video

Output Format:	MPEG-2 HD MP@ML; ISO 13818-2
Chroma:	4:2:0
Resolution:	480i, 720p, & 1080i
Frame Rate:	29.97 fps (480i); 29.97 fps (1080i); 59.97 fps (720p)
Aspect Ratio:	4:3 & 16:9
GOP Structure:	I & P frames (user selectable)
Transport Rate:	Variable (user selectable)
Video Bit Rate:	Variable (user selectable)
Video Pre-filter:	Variable (user selectable)
Color Space:	YCbCr and RGB

Audio

Output Format:	Dolby® Digital
Sampling Rate:	48 kHz
Bit Rate:	Variable; 96 - 448 Kbps

Closed Captioning

Component:	EIA- 608; 1x RCA (CC)
HDMI:	EIA- 608; 1x RCA (CC)
VGA:	EIA- 608; 1x RCA (CC)
Composite:	EIA- 608

OUTPUT

RF QAM

Connector(s):	1x "F" Female (Rear-panel)
Modulation:	QAM 16, 32, 64, 128, and 256
Standards:	ITU-T J.83; Annex A and B
Frequency Range:	5 to 1002 MHz
Tuning:	CATV Channel Selectable (T7 to T14, 2 to 158)
Channel Bandwidth:	6 MHz
RF Level:	+40 dBmV ±1 dB
RF Level Adjustment:	+35 to +42 dBmV, 0.5 dB increment
Frequency Stability:	± 5 kHz over 32 to 122 °F (0 to 50 °C)
Frequency Tolerance:	± 0.5 kHz @ 77 °F (25 °C)
Phase Noise:	-98 dBc (@ 10 kHz)
Spurious:	-60 dBc
Broadband Noise:	-70 dBc (@ +40 dBmV output level, 5.5 MHz bandwidth)
Impedance:	75 Ω
Return Loss:	14 dB typical
Signal-to-Noise Ratio (SNR):	40 dB typical
MER:	40 dB typical
I/Q Phase Error:	Less than 1 degree
I/Q Amplitude Imbalance:	Less than 1%

IP

Connector(s):	1x RJ45 (Rear-panel)
Standard:	100/1000Base-T Ethernet
UDP/RTP:	Supported (user-selectable)

GENERAL

Mechanical

Dimensions (W x D x H):	8.66 x 9.15 x 1.96 inches (219.9 x 232.41 x 49.784 mm)
Weight:	2 lbs (0.907 kg)
Operating Temperature:	32 to 122 °F (0 to 50 °C)
Storage Temperature:	-13 to 158 °F (-25 to 70 °C)
Operating Humidity:	0 to 95% RH @ 35 °C max, non-condensing
Storage Humidity:	0 to 95% RH @ 35 °C max, non-condensing

Power

Power:	External Power Supply (Input 115-230VAC / Output 12VDC @ 3 Amp)
Dissipation:	16 W

ALARMS/MONITORING/CONTROL

Local Monitoring:	1x Power LED 1x Status LED
Local Control:	1x IP Reset Button
Remote Monitoring/ Control:	GUI-based menu via Web browser (1x RJ45 (rear-panel); 100/1000Base-T, also used for IP output)