DRAKE DIGITAL™

EH24A

Encoder Host Chassis System

Model Numbers	
EH24A Encoder Host	**мллнрмл !**
EH24A-ASI Encoder Host ASI Only	**нрпс !**

Benefits

Dual Output Multiplexing QAM modulation

The Drake Digital™ EH24A Encoder Host can multiplex the encoded video streams and output them via an integrated 1GHz QAM modulator and/or an integrated DVB-ASI port, to transmit the digital video over the network.

Scalable System

The Drake Digital™ EH24A Encoder Host features six bays fitting any combination of SDE24, HDE24, or SDI24A modules, all within a 2 rack unit (RU) chassis. The EH24A system can encode up to 12 analog video inputs when fully populated with six SDE24 Encoder Modules. (Bit rate limitations may need to be adjusted accordingly.)

Customizable

The EH24A's sophisticated transport stream multiplexer can combine any or all of the program streams from the input Encoder Modules. The operator may select what programs to include in the QAM output channel and, independent of the QAM output, what

The Drake model EH24A Encoder Host is a platform for supporting modular MPEG2 and MPEG4 H.264 video encoders, including the SDE24, HDE24, and SDI24A. The EH24A multiplexes the encoder outputs into a single Clear QAM RF Channel with up to 12 subprograms, configurable via a front panel interface or remotely over a network by Ethernet web server via an Ethernet port located on the rear of the chassis. The EH24A includes provisions for emergency alert services, using either video replacement or SCTE 18 control messages and is fully compatible with Drake's "Bandwidth Recovery Solution".

The EH24A's sophisticated transport stream multiplexer can combine any or all of the program streams from the Encoder Modules. The operator may select what programs to include in the QAM output channel and, independent of the QAM output, what programs to output via the DVB-ASI port. The QAM RF output can be specified for either off-air or CATV frequency plans in the 54 to 1002 MHz spectrum. The EH24A and installed Encoder Modules are powered by a highly efficient, integrated switching power supply.

Applications

• Hospitality • Health Care • Commercial
• Government/Military • Digital Signage • Cable Networks

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Multiplexer Specifications EH24A and EH24A / ASI Only

Program Filtering and Grooming:	Encoded programs may be disabled or sent to one or both output ports (ASI or QAM, user-selectable). The output timing is restamped and null packets are managed as required.
Multiplexer:	Built-in multiplexer circuitry combines the outputs of all enabled encoders in an EH24A into multiprogram transport streams (MPTS), one to the QAM output and one to the ASI output.
MPEG Program Numbers:	MPEG Program Numbers in the output transport stream by default will be assigned sequentially, corresponding to the encoder number. The leftmost encoder input, as viewed from the rear panel, will be #1. If the Ethernet remote access is used, the MPEG and virtual channel (major and minor) numbers may be user-selected to any desired MPEG-legal numbers as well as allowing program names, up to 7 characters in length, to be added.
ASI Output:	Any or all of the enabled encoders may be directed to the ASI output by means of the user-selectable program filter. If EAS operation is used, this output can be assigned to loop the EAS alert program to additional EH24A's. It can also loop DTA data.
QAM Modulator:	Any or all of the enabled encoders may be directed to the QAM Modulator by means of the user-selectable program filter.
Table Handling – PSIP (Program and System Information)	
PSIP Table Rewriting:	Supported
MGT/VCT Table Generation:	Supported
SCTE18 EAS Generation:	Supported
QAM (Quadrature Amplitude Modulation) Modulator / Up Converter RF Output For the EH24A 1002510A	
Output Symbol Rates:	1 to 7 MSps
Modulation Modes/FEC:	ITU-A: 16, 32, 64, 128, 256, 512, 1024 QAM ITU-B (DigiCipher): 64, 256, 1024 QAM
I/Q Phase Error:	Less than 1 degree
MER:	> 38 dB with blind EQ
Frequency Coverage:	54 – 1002 MHz
Channel Plans:	Standard CATV, HRC, IRC, Broadcast
Frequency Stability:	± 5 ppm
Output Level Accuracy:	± 1 dB
Output Power Level:	+ 45 dBmV to + 62 dBmV, adjustable
Phase Noise:	< – 101 dBc/Hz @ 10 kHz offset
Broadband Noise:	< – 12 dBmV (6 MHz BW @ ± 12 MHz)
Output Impedance:	75 Ohms, RL 14 dB or better, 54 – 1002 MHz
Spurious Emissions:	– 60 dBc from 40 to 1000 MHz
ASI (Asynchronous Serial Interface) Output	
Connector:	1 x BNC
Format:	Streaming Video Data: DVB-ASI; 50083-9 EAS/SCTE-65/DTA Control: DVB-ASI
ASI Data Bit Rate:	Streaming Video Data: 270 Mbps Data Throughput: 214 Mbps
Physical Specifications	
Temperature Rating:	0 – 50 C ambient
Form Factor:	2RU 19'' rack enclosure
Dimensions:	14.25''D x 3.5''H x 19'' W
Weight:	11 lb
Power Requirements:	90 – 264 VAC, 47 – 63 Hz, 70 W maximum
FCC Approvals:	The EH24A has been verified as compliant with part 15 of the FCC rules

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