

e1600 Digital Video Encoder

The e1600 provides full D1 resolution and full frame rate (25fps PAL/30 fps NTSC) on every channel.



The e1600 H.264 video/audio encoder is the newest addition to Synectics' Recording Management System (RMS) encoder series. This 16-channel network-based encoder is ideally suited for centralised or distributed ("edge") encoding of analogue video and audio data. The e1600 delivers D1 resolution at full frame rate (25fps PAL/30 fps NTSC) on every channel. All inputs support dual streaming^{#1} and each stream can be configured independently for desired frame rate, resolution and image quality for the highest degree of transmission and recording flexibility.

Fully integrated to Synectics' RMS and video management systems, the e1600 can be used to transition legacy analogue systems to hybrid or full IP deployments. Encoded video can be displayed on Synergy™ Review Clients, digital or analogue display walls, and mobile clients. Video can also be recorded on a variety of Synectics' network attached storage solutions, including PSNs and EcoNASS.

For applications that require Video Content Analysis, e1600s are fully integrated to the Synectics' iSYNX VCA server so analytic detection rules (such as motion detection, tripwire crossover and counting), can be configured to monitor any video stream on the network. Engineered with Scalable Video Coding (SVC) technology^{#2}, the e1600 is designed to support the most advanced H.264 encoding requirements, now and well into the future.

Features

- 16-channel, dual streaming H.264 encoder with SVC technology^{1, 2}
- Up to full D1 resolution at 25 (PAL)/30 (NTSC) FPS on all 16 channels
- Automatically triggers frame and data rates changes based on configurable alarm and motion-based event profiles
- Simultaneous multicast and unicast support

- SNMP, RTP/RTSP support
- Serial port for PTZ telemetry control
- In-encoder recording supported either via removable flash media and eSATA or via optional internal hard drive

Benefits

- Maximizes channels per rack unit for efficient space and cost deployments
- Complies with video resolution requirements for DFT enforcement systems
- Minimizes bandwidth and storage consumption during low scene activity
- Delivers video in a manner suitable for both LAN and WAN applications
- For added system resilience local in-encoder recordings can be used to seamlessly backfill in instances where audio or video is not available on the main recording management system

Specifications

VIDEO	
Video Inputs	16 Channels
Analogue	Composite PAL / NTSC
Termination	75 Ohm
Resolution	D1 / CIF
Rate	25 Frames (50 fields) PAL, 30 Frames (60 fields) NTSC
Compression	Selectable H.264 AVC high profile / main profile (MPEG4 part 10), H.264 SVC ²
Output Streams	Dual Stream per Channel ¹
Data Rate	Max 3Mbps per Stream Max 60Mbps per 16 Channels
GOP Structure	I & P (with Configurable Length)
Input to Ethernet Latency	<100ms
AUDIO	
Input	16 Mono Channels
Compression	G711
Line Out	2V RMS, 3.5mm Jack
POWER	
PSU Input	100 - 240VAC Auto Ranging (single supply) 9-29VDC dual redundant supply
Consumption	<130W, <100 W with Dual Power Supply Option
NETWORK	
Interface	Dual 10/100/1000BASE T, Single Open Module Slot
Protocols Supported	RTP/RTSP, TCP/IP, UDP, IGMP, SNMP, HTTP
Built in Layer 2 Switch Supporting	VLAN Tagging, QoS, ACL
ALARMS	
In	16 Alarm Inputs, Contact Closure
Out	4 Outputs
SERIAL	
COM ports	1 * RS485 / RS422 Software Selectable on Terminal Blocks 1 * RS232 on DB9
RECORDING	
Onboard Storage	Optional utilizing front mount SD card slot, eSATA, or optional internal HDD
GENERAL	
Size	1RU (H) x 440mm (W) x 243mm (D) (including rear connectors) 19" Rack Mountable
Weight	4kg (unpacked)
Operating Temperature	0°C to +40°C Ambient (32°F to 104°F)
Storage Temperature	-40°C to +100°C (-4°F to 212°F)
Humidity	80% Atmospheric Non-Condensing
Approvals	Complies with CE

¹ dual streaming capability is data rate/frame rate dependent.

Examples of useage scenarios are:

- 16 x 3Mbps D1 full frame rate video + 4 channels audio + recording
- 16 x 2Mbps D1 full frame rate video + 16 channels audio + recording
- 16 x 2Mbps D1 full frame rate video + 8 x 500Kbps D1 half rate + recording
- 16x 1.6Mbps D1 full rate video + 16x 500Kbps D1 half rate + recording
- 16x 1.5Mbps D1 full rate video + 16x 500Kbps D1 half rate + 8 channels audio + recording
- 16x 1.2Mbps D1 full rate video + 16x 500Kbps D1 half rate + 16 channels audio + recording
- 8 x 3Mbps D1 full frame rate video + 8 x 3Mbps D1 full rate + 4 channels audio + recording

² available with later firmware release

³ channels TBC when SVC implemented in later release



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Specifications subject to change. E & OE.

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