

# SME-1901

Monitoring streaming media encoder and distribution amplifier



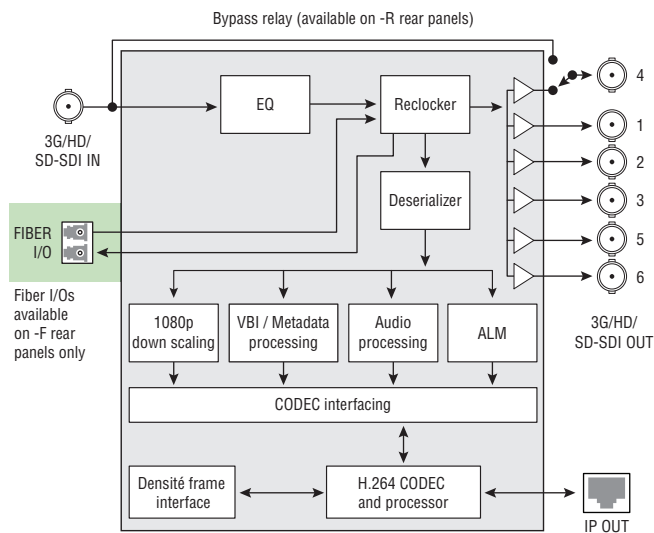
## DESCRIPTION

Designed for multiformat video/audio monitoring over IP in television facilities, the SME-1901 combines an H.264 streaming encoder with a 1 x 6 SDI distribution amplifier (3Gbps/HD/SD). With high frame rate, low bit rate encoding and optional fiber connectivity, the SME-1901 is ideally suited to IPTV content monitoring systems within and across television facilities. It operates with a wide range of decoders, and offers exceptional space and power efficiency, with up to 20 streaming encoders per frame. The SME-1901 is also ideal for video monitoring of core routers over IP, while also providing “fan-in” and “fan-out” distribution amplification.

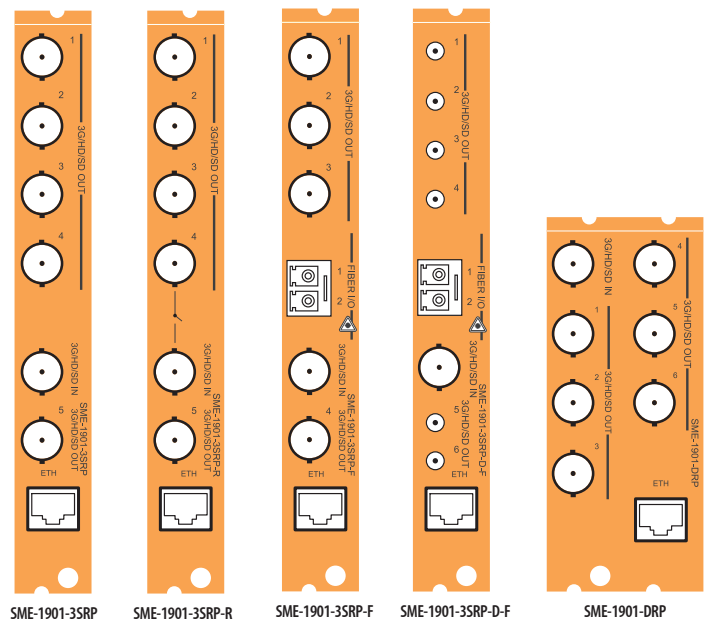
## KEY FEATURES AND BENEFITS

- Space and power efficient design offers up to 20 streaming encoders per frame
- High quality SDI distribution amplifier with up to six 3Gbps/HD/SD outputs
- Highly robust performance with bypass relay protection (available with -R rears)
- Integrated fiber I/O using optional SFP module
- Effective management of embedded audio with:
  - Selection of 2 channel OUT of 16
  - Selection of 5.1 channel for downmix
  - Re-encapsulation for AC3 into the streaming transport
- Comprehensive Metadata support includes Time Code, closed caption (608, 708), AFD and WSS
- H.264 high profile video encoding up to level 4.1 for optimized monitoring
- High frame rate encoding, with encoded resolutions from 320 x 240 up to 1080i59.94/50, including 720p59.94/50 standards
- Flexible bandwidth management using frame rate reduction from 5 to 60 fps, and bit rates from 250 kbps up to 10 Mbps (depending on selected resolution / frame rate)
- Dual resolution streaming allows simultaneous output of lower quality proxy plus high quality stream
- Audio encoding of 2 channels AAC
- Operates with wide range of decoders, including STBs, PC clients and Miranda's iControl facility monitoring and Kaleido-IP multiviewers
- Supports TCP/IP, UDP and HTTP network transport protocols plus RTP, RTSP, and MPEG-TS transport stream protocols

DENSITÉ MODULAR PRODUCTS



SME-1901 Functional Block Diagram



## TECHNICAL SPECIFICATIONS

### ELECTRICAL INPUT

Signal: 3Gbps/HD/SD-SDI SMPTE 424M, 292M, and 259M-C compliant

Supports data rates of: 270, 1483.5, 1485, 2967, 2970 Mbps

Cable length\* (Belden 1694A): 3 Gbps: 110 m (360 ft) at 3 Gbps  
HD: 200 m (655 ft) at 1.5 Gbps  
SD: 400 m (1310 ft) at 270 Mbps

Return loss\*: >15 dB for up to 1.5 GHz  
>10 dB from 1.5 GHz to 3 GHz

### IP INPUT/OUTPUT

Quantity: 1

Connector: 100 Mbps Ethernet with RJ45 connector IEEE 802.3

### PROCESSING PERFORMANCE : IP STREAMING

Signal path: 8 bits

Compression: H.264 high profile (level 4.1)

Latency: TBD

### ELECTRICAL OUTPUTS (6)

Signal: 3Gbps/HD/SD-SDI SMPTE 424M, 292M, and 259M-C compliant

Supports data rates of: 270, 1483.5, 1485, 2967, 2970 Mbps

Return loss: >15 dB for up to 1.5 GHz  
>10 dB from 1.5 GHz to 3 GHz

Jitter (wideband): HD/SD: <0.2 UI  
3 Gbps: <0.3 UI

Rise / fall time: HD: 135 ps max., 20 % to 80 %  
SD: 400 - 800 ps, 20 % to 80 %

### PROCESSING PERFORMANCE: DA SECTION

Signal path: 10 bits

Latency: <6 ns

### ELECTRICAL

Power: 10 W

\* Cable length and return loss specifications will be reduced when using the output protected by the bypass relay on SME-1901-3SRP-R rears. Refer to the manual for more details

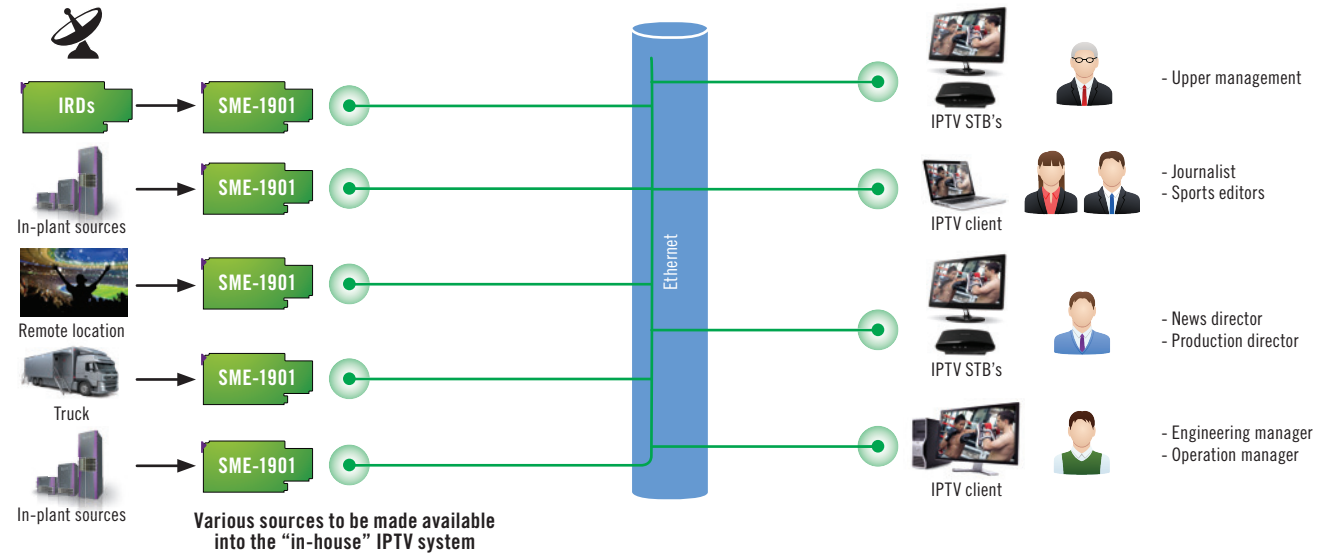


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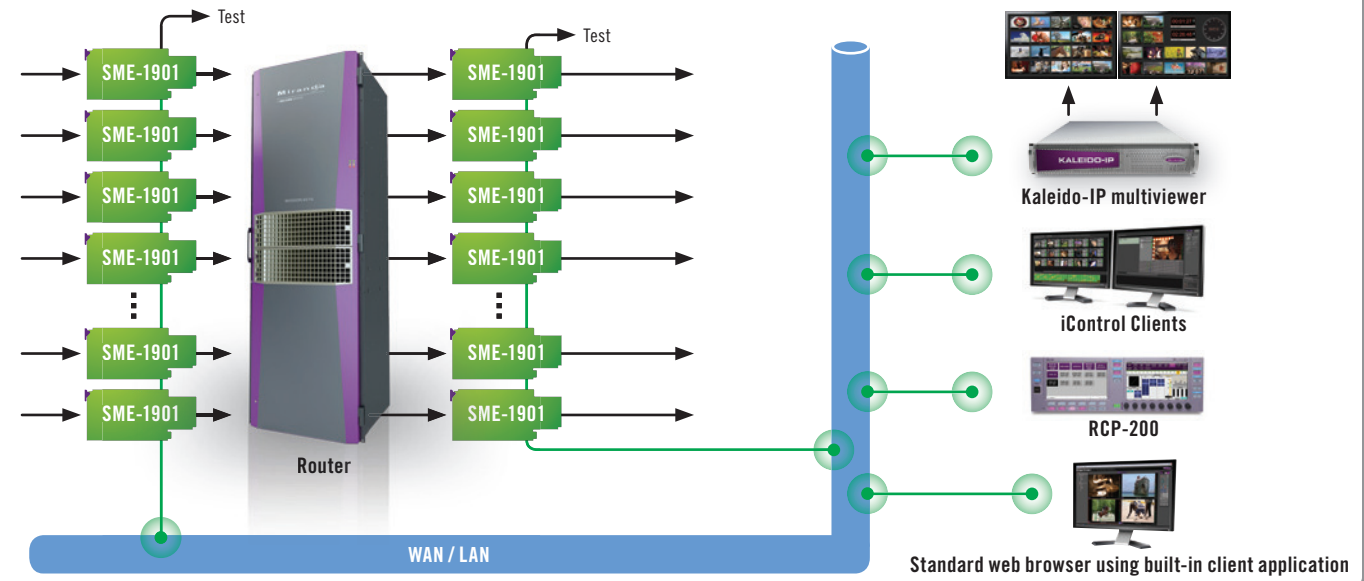
## IPTV CONTENT MONITORING

The SME-1901 is ideal for replacing traditional CATV monitoring systems within facilities with more flexible IPTV content monitoring.



## CORE ROUTER MONITORING

The SME-1901 offers highly flexible core router monitoring over IP, while also providing "fan-in" and "fan-out" distribution amplification.



### ORDERING INFORMATION

DENSITÉ 2 FRAME	DESCRIPTION	FIBER OPTION	REMOTE CONTROL
SME-1901	Streaming media encoder with 1x6 DA	SFP-R-LC	iControl, iControl Solo, RCP-200
SME-1901-DRP	Densité 2 double rear connector panel with 1x6 DA operation mode	SFP-T-S13-LC	
DENSITÉ 3 FRAME	DESCRIPTION		
SME-1901-3RU	Streaming media encoder with 1x6 DA		
SME-1901-3SRP	Densité 3 single rear connector panel with 1x5 DA operation mode		
SME-1901-3SRP-R	Densité 3 single rear connector panel with bypass protection relay, and 1x5 DA operation mode		
SME-1901-3SRP-F	Densité 3 single rear connector panel with fiber option support, and 1x4 DA operation mode		
SME-1901-3SRP-D-F	Densité 3 single rear connector panel with DIN connectors with fiber option support, and 1x6 DA operation mode		