



Nextiva Intelligent Edge Devices

Single- and Dual-Stream Performance

A VERINT SYSTEMS TECHNICAL BRIEF

June 2008

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Preface

Nextiva® Intelligent Edge Devices provide the flexibility, versatility, and power to capture images virtually everywhere that impact security and business performance. Built around accepted industry standards for high availability and easy interoperability with your IT and enterprise systems, Nextiva Intelligent Edge Devices deliver actionable intelligence on an IT-friendly platform. Nextiva Intelligent Edge Devices are fully integrated with Nextiva Enterprise to provide continuous monitoring and automated problem diagnostics and initiate corrective action for greater system uptime and lower service costs.

This technical brief examines the resolutions, frame rates, and single- and dual-stream performance of Nextiva Ethernet video servers, wireless devices, and IP cameras to help you select the devices that best meet your project requirements for live and recorded video viewing.

Introduction

Nextiva Ethernet video servers and IP cameras provide robust functionality with high quality images and single- and dual-stream encoding. When used in single-stream encoding mode, these devices encode one video stream per video input. Dual-stream encoding allows a video input to be encoded with two different sets of parameters in order to provide a live-view stream and a recording stream with different frame-rate and resolution settings. Dual-stream encoding enables video to be viewed and analyzed at high resolution for superior clarity and analytic accuracy, yet recorded at a lower frame rate, thereby reducing data transport and storage requirements.

Obtaining Metrics and Defining Settings

The video sequences used to obtain the metrics presented in this technical brief are representative of commonly-occurring scenes recorded by CCTV monitoring security systems. Nextiva Ethernet video servers and IP cameras may provide better performance than indicated in this document, especially for scenes with lower motion rates and/or less detail. Conversely, high-motion scenes may not be sustainable at the frame rates indicated. In such cases, it is advisable to reduce the resolution and/or the frame rate on one or both of the streams to reach a point where the device can sustain the frame rates. Finally, *noisy* images may also impact performance. Verint® offers a variety of filter levels in the encoder configuration to help mitigate the impact.

The metrics presented in this document were obtained using the following general parameter settings:

Parameter	Value
Frame Rate, Resolution, and Target Bitrate	Depends on the tests being conducted
Standard	NTSC (PAL)

Parameter	Value
Brightness, Contrast, Hue, and Saturation	0
Motion Detection	Off
Minimum Quantizer	2 to 4, variable*
Maximum Quantizer	30
Transport Protocol	RTP/UDP
Rate Control Mode	Constant Bitrate (CBR) or Constant Frame Rate (CFR)
Noise Reduction Filter	None or low*
Compression Mode	MJPEG, SM4, or MPEG-4 (depends on tests being conducted)
Input Filter	4CIF=None*
Intra Interval	Products without analytics support: 8.33 to 30 FPS=120, 5 to 7.5 FPS=60, 1 to 4 FPS=30 Products with analytics support: 8.33 to 30 FPS=64, 5 to 7.5 FPS=64, 1 to 4 FPS=32
Deinterlacing Mode	Off
Software builds	Products with analytics support Nextiva 5.0 SP1
All other parameters	Set to default values

*Depending on the tests being conducted

Combinations with lower frame rates and/or resolutions are supported. Although the units are capable of sustaining streaming up to 6000 kbps, a default value of 4000 kbps was chosen to show results at 4CIF, 30 FPS.

Supported Resolutions

This section presents the Nextiva Intelligent Edge Devices supported resolutions used in a single stream context.

- The multiport Nextiva S17XXe series includes the S1704e, S1704e-AS, S1708e, S1708e-AS, S1712e, and S1724e.
- The Nextiva S1900e series includes the S1900e-AS, S1950e, S1970e, and S1970e-XT.
- The Nextiva S2600e series includes the S2600e, S2600e-AS, S2610e, and S2610e-AS.
- The Nextiva S2700e series includes the S2700e and S2700e-VR.
- The Nextiva S2750e series includes the S2750eN and S2750eP.
- The Nextiva S2800e series includes the S2800eN-C22, S2800eN-P22, S2800eN-W22, S2800eN-C22CA, S2800eN-P22CA, S2800eN-W22CA, S2800eN-C23, S2800eN-P23, S2800eN-W23, S2800eN-M23, S2800eN-W35, and S2800eN-M35.
- The Nextiva S1100 and S1100w
- The Nextiva S4100 and S4200

Resolution	Columns	Lines		Availability
	NTSC/PAL	NTSC	PAL	
QCIF	176	128	144	S1100, S1100w, S1900e series, S2500e, S2600e series, S2700e series, S2750e series, S2800e series, S4100, S4200
CIF	352	240	288	All devices
2CIF	704	240	288	Versions 2.60 and up: S1100, S1100w, multiport S17XXe series, S1900e series, S2500e, S2600e series, S2700e series, S2750e series, S2800e series, S4100, S4200
4CIF	704	480	576	Version 3.10 and up: S1100w, multiport S17XXe series, S1900e series, S2500e, S2600e series, S2700e series, S2750e series, and S2800e series. S4100, S4200
All lines	352	480	576	Versions 2.50 up to 2.60: S1100w Version 3.10 and up: S1100, S1100w, multiport S17XXe series, S1900e series, S1970e, S2500e, S2600e series, S2700e series, S2750e series, and S2800e series. S4100, S4200

2/3 D1	480	480	576	Version 3.10 and up: S1100, S1100w multiport S17XXe series, S1900e series, S2500e, S2600e series, S2700e series, S2750e series, S2800e series, S4100, S4200.
VGA	640	480	480	Version 3.10 and up: S1100, S1100w, multiport S17XXe series, S1900e series, S2500e, S2600e series, S2700e series, S2750e series, S2800e series, S4100, S4200.

Supported Frame Rates

This section presents the maximum supported frames rates (in frames per second) of the Nextiva Intelligent Edge Devices.

Single Port and Multiport Video Transmitters

SM4-based Compression Mode

The maximum frame rates (in frames per second) for the wired transmitters using the proprietary SM4-based compression mode in NTSC (PAL) formats.

Resolution	S1970e	S1704e S1704e-AS S1708e	S1708e-AS	S1712e	S1724e ¹	S1900e-AS	S1950e
QCIF	30 (25)	—	—	—	—	30 (25)	30 (25)
CIF	30 (25)	30 (25)	30 (25)	30 (25)	15 (12.5)	30 (25)	30 (25)
2CIF	30 (25)	30 (25)	10 (8.33) ³	30 (25)	7.5 (6.25)	30 (25)	30 (25)
4CIF	30 (25)	30 (25)	7.5 (6.25) ³	15 (12.5)	3.75 (3.125)	30 (25) ²	15 (12.5)
All lines	30 (25)	30 (25)	10 (8.33) ³	30 (25)	7.5 (6.25)	30 (25)	30 (25)
2/3 D1	30 (25)	30 (25)	7.5 (6.25) ³	15 (12.5)	7.5 (6.25)	30 (25)	30(25)
VGA	30 (25)	30 (25)	7.5 (6.25) ³	15 (12.5)	3.75 (3.125)	30 (25) ²	15 (12.5)

Notes:

1 Dual encoders are not supported.

2 On encoder 2 only.

3 When advanced analytics are used. Otherwise, the values are the same ones as the S1708e.

MPEG-4 ISO 14496-2 Compliant Compression Mode

The maximum frame rates (in frames per second) for the wired transmitters using the MPEG-4 ISO 14496-2 compliant compression mode in NTSC (PAL) formats.

Resolution	S1704e S1704e-AS S1708e	S1708e-AS	S1712e	S1724e ¹	S1900e-AS	S1950e	S1970e
QCIF	—	—	—	—	30 (25)	30 (25)	30 (25)
CIF	30 (25)	—	30 (25)	15 (12.5)	30 (25)	30 (25)	30 (25)
2CIF	30 (25)	—	15 (12.5)	3.75 (3.125)	30 (25)	30 (25)	30 (25)
4CIF	30 (25)	—	10 (8.33)	3.75 (3.125)	30 (25) ²	15 (12.5)	30 (25)
All lines	30 (25)	—	15 (12.5)	3.75 (3.125)	30 (25)	30 (25)	30 (25)
2/3 D1	30 (25)	—	15 (12.5)	3.75 (3.125)	30 (25)	30 (25)	30 (25)
VGA	30 (25)	—	15 (12.5)	3.75 (3.125)	30 (25) ²	15 (12.5)	30 (25)

Notes:

1 Dual encoders are not supported.

2 On encoder 2 only.

MJPEG Compression Mode

The maximum frame rates for MJPEG using the NTSC (PAL) format.

Resolution	S1950e	S1970e
QCIF	30 (25)	30 (25)
CIF	30 (25)	30 (25)
2CIF	30 (25)	30 (25)
4CIF	15 (12.5)	30 (25)

All lines	30 (25)	30 (25)
2/3 D1	30 (25)	30 (25)
VGA	30 (25) ¹	30 (25)

Notes:

¹ Without noise, I/Os, and other factors affecting quality, the device can achieve the highest frame rate.

Frame per Second (FPS) for NTSC and PAL

IP Cameras

Verint offers a comprehensive line of IP cameras built on accepted industry standards for easy interoperability with existing IT infrastructure and video equipment.

- The Nextiva S2600e series contains professional IP cameras with a super wide 102 dB dynamic range for excellent quality in high-contrast environments, and 0.5 lux sensitivity for crisp images.
- The Nextiva S2700e series contain high-resolution, IP mini-dome cameras that feature triple axis lens rotation for flexible installation and low lux sensitivity.

SM4-based and MPEG-4 ISO 14496-2 Compliant Compression Modes

The maximum frame rates (in frames per second) for the IP cameras using the proprietary SM4-based and the MPEG-4 ISO 14496-2 compliant compression modes in the NTSC (PAL) format, when applicable.

Resolution	SM4-based mode			MPEG-4 ISO 14496-2 compliant mode			
	S2500e S2600e series	S2700e series S2800e series	S2750e	S2500e	S2600e series S2800e series	S2700e series	S2750e
QCIF	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)
CIF	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)
2CIF	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)
4CIF	30 (25)	30 (25)	15 (12.5)	15 (12.5)	30 (25)	30 (25)	15 (12.5)
All lines	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)

2/3 D1	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)	15 (12.5)
VGA	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)

Wireless Devices

Nextiva wireless edge devices can be used virtually anywhere where security and performance are important. They are designed to address the challenges faced by critical infrastructure organizations and public safety agencies.

SM4-based Compression Mode

The maximum frame rates (in frames per second) for the wireless devices using the proprietary SM4-based compression mode in the NTSC (PAL) format.

Resolution	S1100	S1100w	S4100-T/R S4200	S4100-2V-T/R S4200-2V	S4200-AS S4200-AS-2V
QCIF	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)
CIF	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)
2CIF	30 (25)	30 (25)	Not applicable	Not applicable	Not applicable
2CIF	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)
4CIF	15 (12)	15 (12)	30 (25)	30 (25)	30 (25)
All lines	30 (25)	30 (25)	30 (25)	30 (25)	30 (25)
2/3 D1	15/30 (12/25) 1	15/30 (12/25) 1	30 (25)	30 (25)	30 (25)
VGA	15/30 (12/25) 1	15/30 (12/25) 1	30 (25)	30 (25)	30 (25)

Notes:

- 1 Without noise, I/Os, and other factors affecting quality, the device can achieve the highest frame rate.

NTSC and PAL Frame per Second (FPS) Equivalents

This section presents the supported frames rates (in frames per second) of the Nextiva Intelligent Edge Devices in NTSC and their PAL equivalents.

NTSC	PAL equivalents (for processing power and storage required)
30	25
15	12.5
10	8.33
7.5	6.25
6	5
5	4.16 (set 4)
3.75 (set 4)	3.125 (set 3)
3	No equivalent. Would be 2.5 but this is not supported by the Nextiva intelligent edge devices.
2	No equivalent. Would be 1.66 but this is not supported by the Nextiva intelligent edge devices.
No equivalent	2.08 (set 2)
1	No equivalent. Would be 0.83 but this is not supported by the Nextiva intelligent edge devices.
No equivalent	1

Ethernet Video Server Single- and Dual-Stream Performance

This section presents the single- and dual-stream performance of the Nextiva single port and multiport Ethernet video servers, providing high availability and easy interoperability.

Nextiva S1704e-T

The Nextiva S1704e-T is a high-resolution, four-input Ethernet video server that features 4CIF/30 FPS maximum resolution and MPEG-4 SP compression. Tests were performed with firmware release 4.20, and Content Analyzing the video.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders of the four video inputs when streaming in SM4 format.

Encoder 1 (or 2) Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	Inactive
4CIF, 30 FPS, 4000 kbps	4CIF, 3.75 FPS, 600 kbps
VGA, 30 FPS, 4000 kbps	VGA, 7.5 FPS, 1200 kbps
4CIF, 30 FPS, 4000 kbps	CIF, 15 FPS, 500 kbps
CIF, 30 FPS, 1000 kbps	4CIF, 15 FPS, 2000 kbps
2CIF, 30 FPS, 2000 kbps	All Lines (1/2 D1), 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders of the four video inputs when streaming in MPEG-4 format.

Encoder 1 (or 2) Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	Inactive
VGA, 30 FPS, 4000 kbps	CIF, 7.5 FPS, 300 kbps

CIF, 30 FPS, 1000 kbps	4CIF, 15 FPS, 2000 kbps
All Lines (1/2 D1), 30 FPS, 2000 kbps	2CIF, 15 FPS, 1000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

Nextiva S1704e-T-AS

The Nextiva S1704e-T-AS is a DVD-quality Ethernet video server with 4 video inputs that features dual streaming, 4CIF/30 FPS maximum resolution, MPEG-4 SP compression, one optional audio port, and on-board analytics. Tests were performed with the Content Analyzer enabled using firmware release 4.60.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders of the four video inputs when streaming in SM4 format.

Encoder 1 (or 2) Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	4CIF, 15 FPS, 2000 kbps
4CIF, 30 FPS, 4000 kbps	CIF, 30 FPS, 1000 kbps
4CIF, 30 FPS, 4000 kbps	2CIF, 30 FPS, 2000 kbps
4CIF, 30 FPS, 4000 kbps	Half-D1 (All Lines), 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

MPEG-4 Encoding

No MPEG-4 performance tests were performed on the S1704e-T-AS. MPEG-4 results are expected to be similar to SM4 results.

Nextiva S1708e-T

The Nextiva S1708e-T is a DVD-quality, 8-port Ethernet video server that features dual streaming, 4CIF/30 FPS maximum resolution, MPEG-4 SP compression, and optional 12 audio ports. Tests were performed with firmware release 4.20.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders of the eight video inputs when streaming in SM4 format.

Encoder 1 (or 2) Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	Inactive
4CIF, 30 FPS, 4000 kbps	4CIF, 3.75 FPS, 600 kbps
VGA, 30 FPS, 4000 kbps	VGA, 7.5 FPS, 1200 kbps
4CIF, 30 FPS, 4000 kbps	CIF, 15 FPS, 500 kbps
CIF, 30 FPS, 1000 kbps	4CIF, 15 FPS, 2000 kbps
2CIF, 30 FPS, 2000 kbps	All Lines (1/2 D1), 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders of the eight video inputs when streaming in MPEG-4 format.

Encoder 1 (or 2) Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	Inactive
VGA, 30 FPS, 4000 kbps	CIF, 7.5 FPS, 300 kbps
CIF, 30 FPS, 1000 kbps	4CIF, 15 FPS, 2000 kbps
All Lines (1/2 D1), 30 FPS, 2000 kbps	2CIF, 15 FPS, 1000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

Nextiva S1708e-T-AS

The Nextiva S1708e-T-AS is a DVD-quality, 8-port Ethernet video server with eight video inputs. This unit features dual streaming, CIF/30 FPS maximum resolution, MPEG-4 SP compression, and on-board analytics. Tests were performed with the Content Analyzer enabled using firmware release 4.60. For performances without Content Analyzer, refer to the S1708e-T tables.

SM4 Encoding

The following settings can be supported simultaneously on a single encoder of the eight video inputs when streaming in SM4 format and Content Analyzing the video. Dual encoding is not recommended when running the Content Analyzing feature on the video.

Encoder 1
Resolution, Frame Rate, Target Bitrate
2CIF, 10 FPS, 700 kbps
CIF, 30 FPS, 1000 kbps
4CIF, 7.5 FPS, 1000 kbps
Combinations with lower frame rates and/or resolutions are supported.

MPEG-4 Encoding

No MPEG-4 performance tests were performed on the S1708e-T-AS. MPEG-4 results are expected to be similar to SM4 results.

Nextiva S1712e-T

The Nextiva S1712e-T Ethernet video server is optimized for up to 12-port applications and features dual streaming, 2CIF/30 FPS maximum resolution, MPEG-4 SP compression, and optional 12 audio ports. Tests were performed with firmware release 4.20.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders of the 12 video inputs when streaming in SM4 format.

Encoder 1 (or 2)	Encoder 2 (or 1)
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 15 FPS, 2000 kbps	Inactive
2CIF, 30 FPS, 2000 kbps	Inactive
All Lines (1/2 D1), 30 FPS, 2000 kbps	Inactive
CIF, 30 FPS, 1000 kbps	4CIF, 7.5 FPS, 1200 kbps
CIF, 30 FPS, 1000 kbps	2CIF, 15 FPS, 1000 kbps
CIF, 30 FPS, 1000 kbps	All Lines (1/2 D1), 15 FPS, 1000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders of the 12 video inputs when streaming in MPEG-4 format.

Encoder 1 (or 2) Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) Resolution, Frame Rate, Target Bitrate
4CIF, 10 FPS, 1500 kbps	Inactive
2CIF, 15 FPS, 1000 kbps	Inactive
All Lines (1/2 D1), 15 FPS, 1000 kbps	Inactive
CIF, 30 FPS, 1000 kbps	Inactive
CIF, 30 FPS, 1000 kbps	4CIF, 3.75 FPS, 600 kbps
CIF, 30 FPS, 1000 kbps	2CIF, 7.5 FPS, 600 kbps
CIF, 30 FPS, 1000 kbps	All Lines (1/2 D1), 7.5 FPS, 600 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

Nextiva S1724e-T

The Nextiva S1724e-T Ethernet video server is optimized for up to 24-port applications and features up to CIF/15 FPS resolution, and MPEG-4 SP compression. Tests were performed with firmware release 4.20.

SM4 Encoding

The following settings can be supported on the single encoder of the 24 video inputs when streaming in SM4 format. Dual encoding is not available for this device.

Encoder 1 Resolution, Frame Rate, Target Bitrate
4CIF, 3.75 FPS, 600 kbps
2CIF, 7.5 FPS, 600 kbps
All Lines (1/2 D1), 7.5 FPS, 600 kbps
CIF, 15 FPS, 1000 kbps
Lower frame rates and/or resolutions are supported.

MPEG-4 Encoding

The following settings can be supported on the single encoder of the 24 video inputs when streaming in MPEG-4 format. Dual encoding is not available for this device.

Encoder 1
Resolution, Frame Rate, Target Bitrate
4CIF, 3.75 FPS, 600 kbps
2CIF, 3.75 FPS, 400 kbps
All Lines (1/2 D1), 3.75 FPS, 400 kbps
CIF, 15 FPS, 600 kbps
Lower frame rates and/or resolutions are supported.

Nextiva S1900e-T-AS

The Nextiva S1900e-T-AS is a highly compact, DVD-quality Ethernet video server that features dual streaming, 4CIF/30 FPS maximum resolution, MPEG-4 SP compression, and on-board analytics. Tests were performed with the Content Analyzer enabled using firmware release 4.60.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in SM4 format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
2/3 D1, 30 FPS, 3000 kbps	4CIF, 30 FPS, 4000 kbps
Combinations with lower frame rates and/or resolutions are supported.	
Encoders 1 and 2 are not interchangeable.	

MPEG-4 Encoding

No MPEG-4 performance tests were performed on the S1900e-T-AS. MPEG-4 results are expected to be similar to SM4 results.

Nextiva S1950e-T

The Nextiva S1950e-T is a highly compact Ethernet video server that features 2CIF/30 FPS maximum resolution, MPEG-4 SP compression, and one bi-directional audio input. Tests were performed with firmware release 4.80.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in SM4 format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
VGA, 30 FPS, 4000 kbps	Inactive
4CIF, 30 FPS, 4000 kbps*	Inactive
4CIF, 7.5 FPS, 1000 kbps	CIF, 30 FPS, 1000 kbps
2CIF, 15 FPS, 1000 kbps	All lines, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

* Indicates low motion scene

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MPEG-4 format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
2/3 D1, 30 FPS, 3000 kbps	Inactive
4CIF, 7.5 FPS, 1000 kbps	CIF, 30 FPS, 1000 kbps
2CIF, 7.5 FPS, 600 kbps	All lines, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

MJPEG Encoding

The following settings can be supported simultaneously on the two encoders.

Encoder 1 (or 2) Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 8000 kbps *	Inactive
4CIF, 15 FPS, 5000 kbps	4CIF, 5 FPS, 2000 kbps
4CIF, 5 FPS, 2000 kbps	2CIF, 30 FPS, 5000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

* Indicates low motion scene

Nextiva S1970e-T and S1970e-T-XT

The Nextiva S1970e-T is a highly compact, DVD-quality Ethernet video server that features 4CIF/30 FPS maximum resolution, MPEG-4 SP compression and one bi-directional audio input. The S1970e-T-XT model offers an extended temperature module. Tests were performed with firmware release 4.80.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in SM4 format.

Encoder 1 Resolution, Frame Rate, Target Bitrate	Encoder 2 Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	Inactive
4CIF, 30 FPS, 4000 kbps	4CIF, 7.5 FPS, 1200 kbps
4CIF, 30 FPS, 4000 kbps	CIF, 30 FPS, 1000 kbps
2CIF, 30 FPS, 2000 kbps	All lines, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MPEG-4 format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	Inactive
4CIF, 15 FPS, 2000 kbps	CIF, 30 FPS, 1000 kbps
2CIF, 15 FPS, 1000 kbps	All lines, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

MJPEG Encoding Only

The following settings can be supported simultaneously on the two encoders.

Encoder 1 (or 2)	Encoder 2 (or 1)
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 12500 kbps	Inactive
4CIF, 30 FPS, 8000 kbps	4CIF, 3.75 FPS, 1000 kbps
4CIF, 30 FPS, 8000 kbps	CIF, 10 FPS, 900 kbps
4CIF, 15 FPS, 5000 kbps	2CIF, 30 FPS, 5000 kbps
2CIF, 30 FPS, 4000 kbps	All Lines, 30 FPS, 4000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

MJPEG and SM4 Encoding

The following settings can be supported simultaneously on the two encoders.

Encoder 1 (or 2) MJPEG	Encoder 2 (or 1) SM4
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 10000 kbps	4CIF, 3.75 FPS, 750 kbps
4CIF, 15 FPS, 5000 kbps	4CIF, 15 FPS, 2000 kbps
4CIF, 15 FPS, 3300 kbps *	4CIF, 30 FPS, 4000 kbps *

Encoder 1 (or 2) MJPEG Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) SM4 Resolution, Frame Rate, Target Bitrate
2CIF, 30 FPS, 5000 kbps	2CIF, 30 FPS, 2000 kbps
CIF, 30 FPS, 2500 kbps *	4CIF, 30 FPS, 4000 kbps *
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

* Indicates low motion or disabled noise reduction filter on both encoders.

MJPEG and MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders.

Encoder 1 (or 2) MJPEG Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) MPEG-4 Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 10000 kbps	Inactive
4CIF, 15 FPS, 5000 kbps	4CIF, 15 FPS, 2000 kbps
4CIF, 10 FPS, 3300 kbps	2CIF, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

IP Camera Dual-Stream Performance

The Nextiva S2600e series and S2700e IP cameras are professional cameras built around accepted industry standards and fully integrated with Nextiva Enterprise to provide continuous monitoring and automated problem diagnostics.

Nextiva S2600e and S2610e

The Nextiva S2600e is a DVD-quality, extremely wide, dynamic-range fixed IP camera that features 4CIF/30 FPS maximum resolution, MPEG-4 SP compression, and PoE or 12V DC power supply. Tests were performed with firmware release 4.80.

The Nextiva S2610e is a DVD-quality, super wide, dynamic-range fixed IP camera that features 4CIF/30 FPS maximum resolution, MPEG-4 SP compression, day/night support, and PoE or 12V DC power supply. Tests were performed with firmware release 4.80.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in SM4 format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	Inactive
4CIF, 30 FPS, 4000 kbps	4CIF, 7.5 FPS, 1200 kbps
4CIF, 30 FPS, 4000 kbps	CIF, 30 FPS, 1000 kbps
2CIF, 30 FPS, 2000 kbps	All lines, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MPEG-4 format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	Inactive
4CIF, 15 FPS, 2000 kbps	CIF, 30 FPS, 1000 kbps
2CIF, 15 FPS, 1000 kbps	All lines, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

MJPEG Encoding only

The following settings can be supported simultaneously on the two encoders.

Encoder 1 (or 2) Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 12500 kbps	Inactive
4CIF, 30 FPS, 8000 kbps	4CIF, 3.75 FPS, 1000 kbps
4CIF, 30 FPS, 8000 kbps	CIF, 10 FPS, 900 kbps
4CIF, 15 FPS, 5000 kbps	2CIF, 30 FPS, 5000 kbps
2CIF, 30 FPS, 4000 kbps	All Lines, 30 FPS, 4000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

MJPEG and SM4 Encoding

The following settings can be supported simultaneously on the two encoders.

Encoder 1 (or 2) MJPEG Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) SM4 Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 10000 kbps	4CIF, 3.75 FPS, 750 kbps
4CIF, 15 FPS, 5000 kbps	4CIF, 15 FPS, 2000 kbps
4CIF, 15 FPS, 3300 kbps *	4CIF, 30 FPS, 4000 kbps *
2CIF, 30 FPS, 5000 kbps (20 KB/Frame)	2CIF, 30 FPS, 2000 kbps
CIF, 30 FPS, 2500 kbps *	4CIF, 30 FPS, 4000 kbps *
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

* Indicates low motion or disabled noise reduction filter on both encoders.

MJPEG and MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders of the four video inputs.

Encoder 1 (or 2) MJPEG	Encoder 2 (or 1) MPEG-4
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 10000 kbps	Inactive
4CIF, 15 FPS, 5000 kbps	4CIF, 15 FPS, 2000 kbps
4CIF, 10 FPS, 3300 kbps	2CIF, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

Nextiva S2600e-AS and S2610e-AS

The Nextiva S2600e-AS is a DVD-quality, super wide, dynamic-range fixed IP camera that features 4CIF/30 FPS maximum resolution, MPEG-4 SP compression, on-board analytics, and a 12V DC power supply. Tests were performed with firmware release 4.60.

The Nextiva S2610e-AS is a DVD-quality, super wide, dynamic-range fixed IP camera that features 4CIF/30 FPS maximum resolution, MPEG-4 SP compression, day/night support, on-board analytics, and a 12V DC power supply. Tests were performed with firmware release 4.60.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in SM4 format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	4CIF, 30 FPS, 4000 kbps
Combinations with lower frame rates and/or resolutions are supported. Encoders 1 and 2 are not interchangeable.	

MPEG-4 Encoding

No MPEG-4 performance tests were performed on the S2600e-AS or the S2610e-AS. MPEG-4 results are expected to be similar to SM4 results.

Nextiva S2700e

The Nextiva S2700e is a DVD-quality, IP mini-dome camera with day/night support that features triple axis lens rotation, PoE or 12V DC power supply. The S2700e delivers dual-stream video at up to 4CIF/30 FPS maximum resolution with MPEG-4 SP compression. Tests were performed with firmware release 4.80.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in SM4 format.

Encoder 1 Resolution, Frame Rate, Target Bitrate	Encoder 2 Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	Inactive
4CIF, 30 FPS, 4000 kbps	4CIF, 7.5 FPS, 1200 kbps
4CIF, 30 FPS, 4000 kbps	CIF, 30 FPS, 1000 kbps
2CIF, 30 FPS, 2000 kbps	All lines, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MPEG-4 format.

Encoder 1 Resolution, Frame Rate, Target Bitrate	Encoder 2 Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	Inactive
4CIF, 15 FPS, 2000 kbps	CIF, 30 FPS, 1000 kbps
2CIF, 15 FPS, 1000 kbps	All lines, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

MJPEG Encoding only

The following settings can be supported simultaneously on the two encoders.

Encoder 1 (or 2) Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 12500 kbps	Inactive
4CIF, 30 FPS, 8000 kbps	4CIF, 3.75 FPS, 1000 kbps
4CIF, 30 FPS, 8000 kbps	CIF, 10 FPS, 900 kbps
4CIF, 15 FPS, 5000 kbps	2CIF, 30 FPS, 5000 kbps
2CIF, 30 FPS, 4000 kbps	All Lines, 30 FPS, 4000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

MJPEG and SM4 Encoding

The following settings can be supported simultaneously on the two encoders.

Encoder 1 (or 2) MJPEG Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) SM4 Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 10000 kbps	4CIF, 3.75 FPS, 750 kbps
4CIF, 15 FPS, 5000 kbps	4CIF, 15 FPS, 2000 kbps
4CIF, 15 FPS, 3300 kbps *	4CIF, 30 FPS, 4000 kbps *
2CIF, 30 FPS, 5000 kbps	2CIF, 30 FPS, 2000 kbps
CIF, 30 FPS, 2500 kbps *	4CIF, 30 FPS, 4000 kbps *
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

* Indicates low motion or disabled noise reduction filter on both encoders.

MJPEG and MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders of the four video inputs.

Encoder 1 (or 2) MJPEG Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) MPEG-4 Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 10000 kbps	Inactive
4CIF, 15 FPS, 5000 kbps	4CIF, 15 FPS, 2000 kbps
4CIF, 10 FPS, 3300 kbps	2CIF, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

Nextiva S2750e

The Nextiva S2750e is a versatile, IP mini-dome camera that provides excellent image quality and a robust feature set at an attractive price. Designed to deliver MPEG-4 SP and MJPEG video up to 30 fps at VGA resolution, the S2750e features a vari-focal lens and Sony Super HAD CCD sensor for superior image clarity in even low light. A sophisticated design, triple-axis rotation system, Power over Ethernet, and auxiliary analog output streamline installation and simplify camera placement.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in SM4 format.

Encoder 1 Resolution, Frame Rate, Target Bitrate	Encoder 2 Resolution, Frame Rate, Target Bitrate
VGA, 30 FPS, 4000 kbps	Inactive
4CIF, 30 FPS, 4000 kbps*	Inactive
4CIF, 7.5 FPS, 1000 kbps	CIF, 30 FPS, 1000 kbps
2CIF, 15 FPS, 1000 kbps	All lines, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

* Indicates low motion scene

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MPEG-4 format.

Encoder 1 Resolution, Frame Rate, Target Bitrate	Encoder 2 Resolution, Frame Rate, Target Bitrate
2/3 D1, 30 FPS, 3000 kbps	Inactive
4CIF, 7.5 FPS, 1000 kbps	CIF, 30 FPS, 1000 kbps
2CIF, 7.5 FPS, 600 kbps	All lines, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

MJPEG Encoding

The following settings can be supported simultaneously on the two encoders.

Encoder 1 (or 2) Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 8000 kbps *	Inactive
4CIF, 15 FPS, 5000 kbps	4CIF, 5 FPS, 2000 kbps
4CIF, 5 FPS, 2000 kbps	2CIF, 30 FPS, 5000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

* Indicates low motion scene

Nextiva S2800e Series

The Nextiva S2800e series is a set of high-performance PTZ IP camera domes for use in Nextiva video systems. The S2800e series is a partnership between Vicon and Verint. It is designed to deliver MPEG-4 SP and MJPEG video up to 30 fps at VGA resolution.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in SM4 format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	Inactive
4CIF, 30 FPS, 4000 kbps	4CIF, 7.5 FPS, 1200 kbps
4CIF, 30 FPS, 4000 kbps	CIF, 30 FPS, 1000 kbps
2CIF, 30 FPS, 2000 kbps	All lines, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MPEG-4 format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 4000 kbps	Inactive
4CIF, 15 FPS, 2000 kbps	CIF, 30 FPS, 1000 kbps
2CIF, 15 FPS, 1000 kbps	All lines, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

MJPEG Encoding Only

The following settings can be supported simultaneously on the two encoders.

Encoder 1 (or 2)	Encoder 2 (or 1)
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 12500 kbps	Inactive
4CIF, 30 FPS, 8000 kbps	4CIF, 3.75 FPS, 1000 kbps
4CIF, 30 FPS, 8000 kbps	CIF, 10 FPS, 900 kbps
4CIF, 15 FPS, 5000 kbps	2CIF, 30 FPS, 5000 kbps

2CIF, 30 FPS, 4000 kbps	All Lines, 30 FPS, 4000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

MJPEG and SM4 Encoding

The following settings can be supported simultaneously on the two encoders.

Encoder 1 (or 2) MJPEG Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) SM4 Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 10000 kbps	4CIF, 3.75 FPS, 750 kbps
4CIF, 15 FPS, 5000 kbps	4CIF, 15 FPS, 2000 kbps
4CIF, 15 FPS, 3300 kbps *	4CIF, 30 FPS, 4000 kbps *
2CIF, 30 FPS, 5000 kbps	2CIF, 30 FPS, 2000 kbps
CIF, 30 FPS, 2500 kbps *	4CIF, 30 FPS, 4000 kbps *
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

* Indicates low motion or disabled noise reduction filter on both encoders.

MJPEG and MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders.

Encoder 1 (or 2) MJPEG Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) MPEG-4 Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 10000 kbps	Inactive
4CIF, 15 FPS, 5000 kbps	4CIF, 15 FPS, 2000 kbps
4CIF, 10 FPS, 3300 kbps	2CIF, 30 FPS, 2000 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

Wireless Device Single- and Dual-Stream Performance

The Nextiva wireless product line incorporates the latest in wireless technology, combined with the flexibility and power of the Nextiva video encoding technology. The combination of both these technologies in a single box solution puts these products at the forefront of wireless video transmission products.

Nextiva S1100w

The Nextiva S1100w combines video encoding and wireless transmission in a single, compact device with SSL authentication and dual streaming that allows video to be viewed at high resolution for superior clarity, yet recorded at lower frame rates to reduce data transport and storage requirements.

SM4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in SM4 format.

Encoder 1 (or 2) Resolution, Frame Rate, Target Bitrate	Encoder 2 (or 1) Resolution, Frame Rate, Target Bitrate
4CIF, 15 FPS, 2000 kbps	Inactive
2CIF, 30 FPS, 2000 kbps	Inactive
CIF, 30 FPS, 800 kbps	CIF, 10 FPS, 500 kbps
Combinations with lower frame rates and/or resolutions are supported. Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

Nextiva S4100-T/R

The Nextiva S4100 is a point-to-point wireless solution that helps organizations transmit images from virtually anywhere with high reliability. The S4100 consists of two units: a transmitter and receiver. The transmitter digitizes video from analog cameras and transmits it over the 2.4 GHz or 5 GHz license-free wireless band or the 4.9 GHz US public safety band.

SM4 Encoding

The following settings can be supported on the single encoder when streaming in SM4 format. Dual encoding is not available.

Encoder 1
Resolution, Frame Rate, Target Bitrate
4CIF, 30FPS, 3000 kbps*
2CIF, 30 FPS, 2000 kbps
All Lines (1/2 D1), 30 FPS, 2000 kbps
CIF, 30 FPS, 1000 kbps
It is possible to sustain 4000 kbps decoding video performance at 4CIF if the motion in the image is medium rather than high.

*Indicates low to medium motion scene

MPEG-4 Encoding

Encoder 1
Resolution, Frame Rate, Target Bitrate
2CIF, 30 FPS, 3000 kbps
Although MPEG-4 is supported, the SM4 codec is recommended as best suited for use with the S4100.

MJPEG Encoding

Encoder 1
Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 40 Kbytes, CFS
Although MJPEG is supported, the SM4 codec is recommended as best suited for use with the S4100.

Nextiva S4100-2V-T/R

The Nextiva S4100 is a point-to-point wireless solution that helps organizations transmit images from virtually anywhere with high reliability. The S4100 consists of two units: a transmitter and receiver. The transmitter digitizes video from analog cameras and transmits it over the 2.4 GHz or 5 GHz license-free wireless band or the 4.9 GHz US public safety band. Dual encoding is available for the S4100-2V-T/R which includes a video connection to a second analog camera.

SM4 Encoding

The following settings can be supported simultaneously when streaming in SM4 format.

Input/Output 1 Resolution, Frame Rate, Target Bitrate	Input/Output 2 Resolution, Frame Rate, Target Bitrate
2CIF, 30 FPS, 2000 kbps	CIF, 30 FPS, 1000 kbps
CIF, 30 FPS, 1000 kbps	CIF, 30 FPS, 1000 kbps
Settings for encoder 2 correlate with settings for encoder 1 and vice versa.	

MPEG-4 Encoding

It is recommended to use the SM4 codec.

MJPEG Encoding

It is recommended to use the SM4 codec.

S4200

The Nextiva S4200 combines video encoding and wireless transmission in a single, compact device. The S4200 digitizes video from analog cameras and transmits it over the 2.4 GHz or 5 GHz license-free wireless band or the 4.9 GHz US public safety band. When paired with the Nextiva S4300 access point, the S4200 provides a powerful point-to-multipoint wireless solution. (Single Input)

SM4 Encoding

The following settings can be supported when streaming in SM4 format.

Encoder 1 Resolution, Frame Rate, Target Bitrate	Encoder 2 Resolution, Frame Rate, Target Bitrate
4CIF, 30 FPS, 3000 kbps*	Not Active
4CIF, 15 FPS, 3000 kbps	Not Active
4CIF, 15 FPS, 3000 kbps	CIF, 30 FPS, 800 kbps
2CIF, 30 FPS, 2000 kbps	CIF, 30 FPS, 800 kbps
Combinations with lower frame rates and/or resolutions are supported.	

*Indicates low to medium motion scene

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MPEG-4 format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 15 FPS, 2000 kbps	Not Active
2CIF, 15 FPS, 1500 kbps	CIF, 30 FPS, 800 kbps
Combinations with lower frame rates and/or resolutions are supported.	

MJPEG Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MJPEG format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 15 FPS, 20 Kbytes, CFS	CIF, 30 FPS, 10 Kbytes, CFS
CIF, 30 FPS, 10 Kbytes, CFS	CIF, 30 FPS, 10 Kbytes, CFS
Combinations with lower frame rates and/or resolutions are supported.	

S4200-2V

The Nextiva S4200 combines video encoding and wireless transmission in a single, compact device. Dual encoding is available for the S4200-2V which includes a video connection to a second analog camera. (Dual Input).

SM4 Encoding

The following settings can be supported when streaming in SM4 format.

Encoder 1	Encoder 1
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
CIF, 30 FPS, 800 kbps	2CIF, 30 FPS, 2000 kbps*
CIF, 30 FPS, 800 kbps	2CIF, 15 FPS, 1500 kbps
CIF, 30 FPS, 800 kbps	CIF, 30 FPS, 800 kbps

Combinations with lower frame rates and/or resolutions are supported.

*Indicates low to medium motion scene

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MPEG-4 format.

Encoder 1	Encoder 1
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
CIF, 30 FPS, 800 kbps	2CIF, 15 FPS, 1500 kbps
CIF, 30 FPS, 800 kbps	CIF, 30 FPS, 800 kbps
Combinations with lower frame rates and/or resolutions are supported.	

MJPEG Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MJPEG format.

Encoder 1	Encoder 1
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 15 FPS, 20 Kbytes, CFS	CIF, 30 FPS, 10 Kbytes, CFS
CIF, 30 FPS, 10 Kbytes, CFS	CIF, 30 FPS, 10 Kbytes, CFS
Combinations with lower frame rates and/or resolutions are supported.	

S4200-AS

The Nextiva S4200 combines video encoding and wireless transmission in a single, compact device (Single Input) that includes on-board analytics and camera tampering detection.

SM4 Encoding

The following settings can be supported when streaming in SM4 format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
Not Active	4CIF, 30 FPS, 4000 kbps*

4CIF, 15 FPS, 2000 kbps	4CIF, 30 FPS, 4000 kbps*
CIF, 30 FPS, 800 kbps	4CIF, 30 FPS, 3000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

*Indicates low to medium motion scene

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MPEG-4 format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
Not Active	4CIF, 30 FPS, 4000 kbps*
2CIF, 15 FPS, 2000 kbps	4CIF, 30 FPS, 3000 kbps
CIF, 30 FPS, 800 kbps	4CIF, 30 FPS, 3000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

*Indicates low to medium motion scene

MJPEG Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MJPEG format.

Encoder 1	Encoder 2
Resolution, Frame Rate, Target Bitrate	Resolution, Frame Rate, Target Bitrate
4CIF, 15 FPS, 20 Kbytes, CFS	CIF, 30 FPS, 10 Kbytes, CFS
CIF, 30 FPS, 10 Kbytes, CFS	CIF, 30 FPS, 10 Kbytes, CFS
Combinations with lower frame rates and/or resolutions are supported.	

S4200-AS-2V

The Nextiva S4200 combines video encoding and wireless transmission in a single, compact device that includes on-board analytics and camera tampering detection. Dual encoding is available for the S4200-AS-2V which includes a video connection to a second analog camera.

SM4 Encoding

The following settings can be supported on the two encoders when streaming in SM4 format.

Performance Input/Output 1	
Encoder 1 Resolution, Frame Rate, Target Bitrate	Encoder 2 Resolution, Frame Rate, Target Bitrate
Not Active	4CIF, 30 FPS, 3 Mbps*
Not Active	4CIF, 15 FPS, 3 Mbps
CIF, 30 FPS, 0.8 Mbps*	4CIF, 10 FPS, 2 Mbps
CIF, 30 FPS, 0.8 Mbps	All Lines, 30 FPS, 2 Mbps
Combinations with lower frame rates and/or resolutions are supported.	
Performance Input/Output 2	
Encoder 1 Resolution, Frame Rate, Target Bitrate	Encoder 2 Resolution, Frame Rate, Target Bitrate
Not Active	4CIF, 30 FPS, 4000 kbps*
Not Active	4CIF, 30 FPS, 4000 kbps*
CIF, 30 FPS, 800 kbps	4CIF, 30 FPS, 3000 kbps
Combinations with lower frame rates and/or resolutions are supported.	

*Indicates low to medium motion scene

MPEG-4 Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MPEG-4 format.

Performance Input/Output 1	
Encoder 1 Resolution, Frame Rate, Target Bitrate	Encoder 2 Resolution, Frame Rate, Target Bitrate
Not Active	4CIF, 15 FPS, 2 Mbps
Not Active	2CIF, 30 FPS, 2 Mbps
CIF, 30FPS, 0.8Mbps	2CIF, 30 FPS, 2 Mbps

Combinations with lower frame rates and/or resolutions are supported.	
Performance Input/Output 2	
Encoder 1 Resolution, Frame Rate, Target Bitrate	Encoder 2 Resolution, Frame Rate, Target Bitrate
Not Active	4CIF, 30 FPS, 3 Mbps
Not Active	4CIF, 30 FPS, 3 Mbps
CIF, 30FPS, 0.8Mbps	2CIF, 30 FPS, 2 Mbps
Combinations with lower frame rates and/or resolutions are supported.	

MJPEG Encoding

The following settings can be supported simultaneously on the two encoders when streaming in MJPEG format.

Performance Input/Output 1	
Encoder 1 Resolution, Frame Rate, Target Bitrate	Encoder 1 Resolution, Frame Rate, Target Bitrate
4CIF, 15 FPS, 20 Kbytes, CFS	CIF, 30 FPS, 10 Kbytes, CFS
CIF, 30 FPS, 10 Kbytes	CIF, 30 FPS, 10 Kbytes
Combinations with lower frame rates and/or resolutions are supported.	

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