

## VL4500 Series

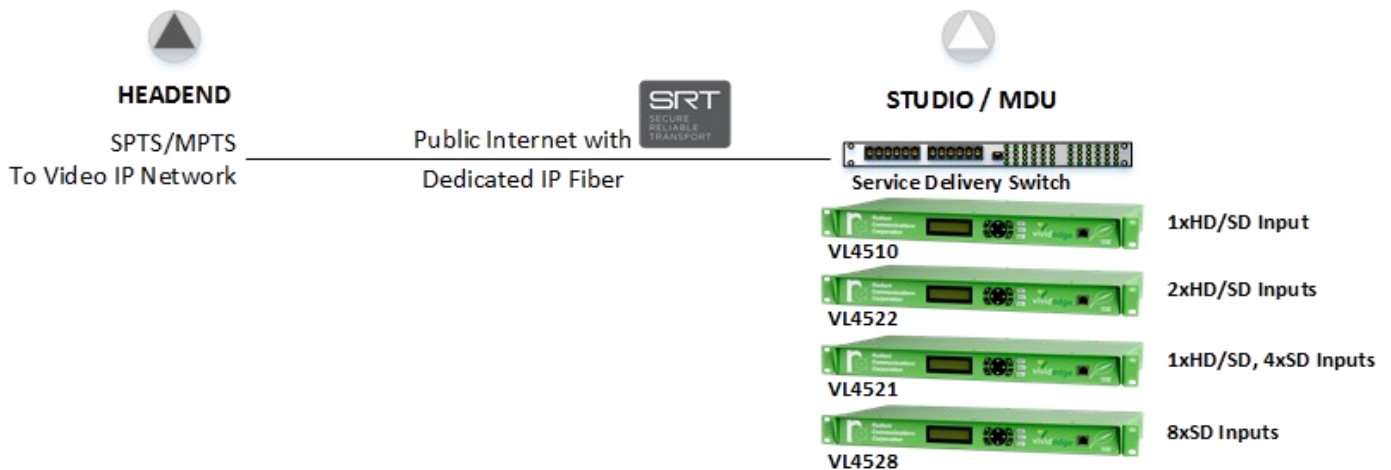
### SD/HD MPEG2 and AVC Encoder



VL4500 Series of products allows the MSO to replace the legacy analog audio and video fiber transmitters with cost effective HD capable multi channel encoder. That transport eliminates fiber receiver, encoder and groomer from the headend, thus way reducing rack space, power consumption and heat dissipation. The product allows the encoding and transporting over GigE multiple CableLabs compliant streams, providing a solution for most of the PEG and local insertion channel loading scenarios.

Closed Caption Support, AFD, Logo Overlay, PiP mode, Ad insertion points, EAS Static image insertion, VLAN support are some of the features that will place the unit right in the MSO's video environment.

VL4500 Series SRT video transport protocol enables the delivery of high-quality and secure, low-latency video across the public Internet, reducing equipment and transport/service cost.



#### HIGHLIGHTS

- ◆ Up to eight channels of MPEG-2 or h.264 AVC programs
- ◆ ASI, IP, QAM and RFoG outputs
- ◆ EIA708 and EIA608 Closed Captions
- ◆ AFD with auto resize option
- ◆ Logo overlay
- ◆ Broadcast delivery over public Internet with SRT protocol
- ◆ Down/Up-conversion option and deinterlacer
- ◆ Picture in Picture option
- ◆ EAS/local alert static image encoding
- ◆ Ad Insertion points option
- ◆ Intuitive web based GUI
- ◆ VividEdgeIoT Predictive Maintenance Package Add-on

# VL4500 Series

# SD/HD MPEG2 and AVC Encoder

## SPECIFICATIONS

### SDI INPUT

SMPTE 259M(SD-SDI)/292M(HD-SDI)/424M(3G), BNC, 75 Ohm

### COMPOSITE VIDEO/AUDIO

NTSC, BNC, 75 Ohm  
 UNBALANCED STEREO AUDIO, 5-PIN CONNECTOR

### TS OUTPUT

ISO/IEC 13818 SPTS/MPTS MPEG TS, 1000BaseT or SFP GigE,  
 Public network/Internet SRT Streaming Protocol

### QAM OUTPUT

QAM 64/256 Annex B, 54Mhz—1GHz, MER <40, 55dBmV

### RFoG OUTPUT

DWDM ITU (ch18 to ch64) Laser, 7mW, 11% OMI

### VIDEO PROCESSING

Down-Conversion with Letter box, Anamorphic and center cut  
 AFD bypass, user input and auto resize  
 Resolution and framerate conversion  
 DPI Trigger Insertion via SCTE35 and SCTE104<sup>1</sup>  
 Logo Overlay<sup>1</sup>  
 EAS/Local Alert Static image encoding on all channels<sup>1</sup>

### VIDEO AND AUDIO

MPEG-2 MP@ML	1-15Mbps
MPEG-2 MP@HL	2-24Mbps
h.264 AVC MP@L3.0	0.5-8Mbps
h.264 AVC MP@L4.2	2-24Mbps
MPEG-2 GOP	10-60 FRAMES, IBBP
h.264 AVC GOP	10-240 FRAMES, IBBBBP
RESOLUTIONS:	480i, 720p, 1080i and 1080p
PiP:	96, 128, 192 and 352 <sup>1</sup>
FRAMERATES:	24, 25, 29.97, 30, 59.94 and 60fps
CHROMA:	4:2:0
AUDIO CODEC:	Dolby Digital 2.0, MPEG Layer2, AAC
SAMPLING RATE:	48kHz
BITRATE:	93-384kbps

### ANCILLARY DATA

CEA 608 from Line 21, CEA 708 per SMPTE 334M, AFD, SCTE104

### ENVIRONMENTAL AND POWER

Power	35W @ 90 to 240VAC (DC Power Brick)
Weight	5lb
Operational Temp	0° to 50° C
Storage Temp	-10° to 60° C
Dimensions	1RU 17.0" W x 9.0"D x 1.75" H

## ORDERING INFORMATION

<b>VL4510</b>	Insertion Encoder, 1 x SDI Input, ASI and GigE Outputs
<b>VL4510C</b>	Insertion Encoder, 1 x SDI/CVBS Input, ASI and GigE Outputs
<b>VL4522</b>	Insertion Encoder, 2 x SDI Inputs, ASI and GigE Outputs
<b>VL4521</b>	Insertion Encoder, 1 x HD-SDI + 4 x SD-SDI Inputs, ASI and GigE Outputs
<b>VL4528</b>	Insertion Encoder, 8 x SD-SDI Input, ASI and GigE Outputs

**Add "Q" at the end of the part number for QAM output option.**

**Add "QFX" at the end of the part number for RFoG output option.**

1. Available in Q1 of 2018