



# SMART openGear® Media Delivery Platform

## Media Over IP Encoder - Decoder



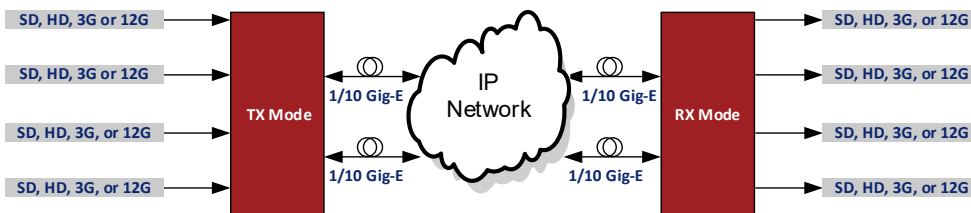
### The SMART openGear® Media Delivery Platform is a four-channel auto-sense 12G/3G/HD/SD-SDI over IP Encoder/Decoder with two 1GigE or 10GigE trunks

The SMART openGear® Media Delivery Platform is a four-channel auto-sense 12G, 3G/HD/SD-SDI-over-IP multifunction gateway for use with openGear® frames, thus providing flexibility and operational simplicity.

The Platform offers greater port density and utilization of 1 Gig Ethernet or 10 Gig Ethernet trunks. Four user video ports can be independently bridged across 1Gig Ethernet or 10 Gig Ethernet trunk ports with or without user defined VLAN's.

The SMART openGear® Platform transmits video, audio and ancillary data in accordance with Video Services Forum JPEG2000 (TR-01:2013) Video-Over-IP Standards (JPEG-XS in future release) and features SMPTE 2022-1 Forward Error Correction (FEC) and SMPTE 2022-7 seamless protection switching. The platform offers bandwidth reporting capabilities and the ability to set the encoder's bandwidth range.

Functionality of the platform may be added to or upgraded via software download. The flexibility of function capabilities in the SMART openGear® Platform allows for a seamless transition as the end user's network evolves.



## FUNCTIONS

- Four channels of JPEG2000 Video-Over-IP (JPEG-XS in future release)
- Two 1GigE/10 GigE data trunks
- Two SFP+ spares for future use
- Contribution Quality Transport of 2160p\*, 1080p, 1080i, 720p and SD-SDI
- Module can be configured as Video-to-IP Encoder or IP-to-Video Decoder
- Fully transparent carriage of SDI/SDTI including ancillary data and up to 8 audio channel pairs
- VLAN tagging capabilities
- Supports unicast or multicast

## FEATURES

### Automatic rate selection

- 12Gb/s 2160p 12G-SDI (SMPTE ST2082-10 Mode 1)\*
- 2.970 Gb/s 1080p 3G-SDI (ST 424:2012)
- 1.485 Gb/s 1080i, 720p HD-SDI (ST 292:2011)
- 270 Mb/s SD-SDI (ST 259:2008, ITU 656)

### Standards-based Conversion and Transmission

- Video Services Forum Recommendation TR-01:2013
- SMPTE ST 2022-7:2013 Seamless Protection Switching
- SMPTE ST 2022-2:2007 IP Encapsulation of MPEG2 TS
- SMPTE ST 2022-1:2007 FEC recovers lost, damaged, or delayed packets

### Flexible user configurable Forward Error Correction (FEC) and buffering settings

- Selectable transmitter row and column FEC settings
- Selectable receiver buffering
- Designed to withstand burst outages more than 3 milliseconds
- Can be disabled for minimum latency

### Externally accessible SFP+ transceiver for 10G trunk interfaces

- Multimode (850 nm, 300 m)
- WDM (1310 nm, 1550 nm, up to 40km)
- CWDM ITU G.694.2 (Chs 27-61, up to 70km)
- DWDM ITU G.694.1 (Chs 21-60, up to 80km)
- Electrical SFP+

### Externally accessible SFP transceivers for 1G user or trunk interfaces

- Multimode (850 nm, 300m)
- WDM (1310nm, 1550nm)
- CWDM ITU G.694.2 (Channels 27-61)
- DWDM ITU G.694.1 (Channels 21-60)
- Electrical SFP

### Configure, monitor, and manage via:

- Ross Dashboard, SMART Manager\* or SNMP\*

\* Future features

## SPECIFICATIONS

### Environmental

Operating Temperature	0 to 40°C
Ambient storage temperature	-40 to 80°C
Relative humidity	10 to 95% (non-condensing)
Power dissipation	under 30 Watts

### Physical

Number of slots	Two
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### Video Interface

Signal Formats (auto sensing)	12Gb/s 2160p 12G-SDI (SMPTE ST2082-10 Mode 1) 2.970 Gb/s 3G-SDI (ST 424:2012) 1080p50, 1080p59.94  720p50, 720p59.94 270 Mb/s SD-SDI (ST 259:2008) 625/50, 525/59
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Connectors	4 Rear HD-BNC 75 Ohm (input or output)
Return Loss	>4dB up to 11888 MHz >15 dB, 5-1485 MHz >10 dB, 1485-2970 MHz

Cable Equalization for Belden 1694A type cable:	0-60 meters (11.88Gbps), 0-100 meters (5.94 Gbps), 0-150 meters (2.97 Gb/s), 0 to 200 meters (1.485 Gb/s), 0 to 400 meters (270 Mb/s)
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Chassis Compatibility	openGear® frames: OG3-FDR and OGX-FR
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### 1G/10G Ethernet Network Interface (Trunk)

Type	Ethernet SFP+ Optical and Electrical (2)
Optical Connectors	LC
Format	1 Gig-E/10 Gig-E

### Regulatory Conformance

Compliance:	CSA 60950, IEC/EN60950, EN55022 FCC Part 15 (Class A), CISPR 22
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UPDATED 11/12/2021  
All specifications subject to change without notice. ©2021

### Ordering Information

SMART OG – J2K	SMART openGear® Platform w/JPEG2000	390-010454-00
SMART OG-JXS-07	SMART openGear® Platform w/JPEG-XS TR-07	Future Release
SFP/SFP+ Options	See SFP/SFP+/XFP compatibility chart	

### Sales



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