MultiDyne®
Video & Fiber Optic Systems

OG-5220-EO
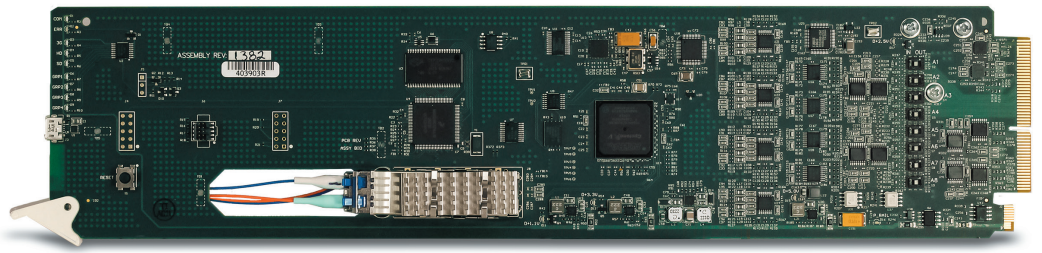## 3G/HD/SD-SDI Fiber-Optic EO Transmitter with 16-Channel AES / 8-Channel Analog Audio Embed / De-Embed

FEATURES

▷ EO fiber transmitter with fiber and coax as outputs

▷ 16-channel AES support and 8-channel analog audio support in one card. Individual per-pair embedding or de-embedding. Provides four-group SDI embed/de-embed and cross-conversions between analog and AES discrete audio.

▷ DashBoard™ status display, audio meters, tone generators. GUI audio meters provide ready assessment of content presence and line-up.

▷ Audio embed adaptive SRC allows asynchronous 48 kHz AES audio to automatically sync with video 48 kHz timing for glitch-free embedding. Individual, per-pair SRC auto-detects and disables SRC when a Dolby pair is detected on an input pair.

▷ Low-power/high-density design – less than 18 Watts per card

▷ Available with CWDM wavelength divisions allowing use in CWDM systems

▷ Remote control/monitoring via Dashboard™ software

APPLICATIONS

▷ Fly Packs
▷ House of Worship
▷ Mobile Trucks

The MultiDyne OG-5220-EO 3G/HD/SD-SDI Fiber-Optic EO Transmitter with 16-Channel AES / 8-Channel Analog Audio Embed / De-Embed offers full-flexibility AES and analog audio embedding/de-embedding with SDI-to-fiber EO in a basic, economical, high-efficiency openGear® card. More than only a basic embedder/de-embedder, the OG-5220-EO offers the flexibility of SDI-to-fiber EO as well as providing fully flexible AES and analog audio embedding/de-embedding.

The OG-5220-EO provides full 16-channel embed / de-embed between AES, 8-channel analog audio, and all four groups of embedded audio. Audio embed adaptive SRC allows asynchronous 48 kHz AES audio to automatically sync with program video 48 kHz timing for glitch-free embedding. Individual, per-pair

SRC auto-detects and disables SRC when a Dolby pair is detected on an input pair. Analog embed/de-embed conforms with professional balanced audio at 0 dBFS to pro 24 dBu levels using full 24-bit conversion. Fully error-free pathological pattern operation is fully compatible with professional fiber video interfaces. The OG-5220-EO is available with numerous CWDM wavelengths that allow the card to be used with CWDM systems.

Full audio crosspoint allows per-channel gain and routing controls, as well as built-in tone generators. Preset save/load allows saving custom card settings while allowing one-button revert to factory settings. Full user DashBoard™ allows full status and control access locally or across a standard Ethernet network.

BLOCK DIAGRAM

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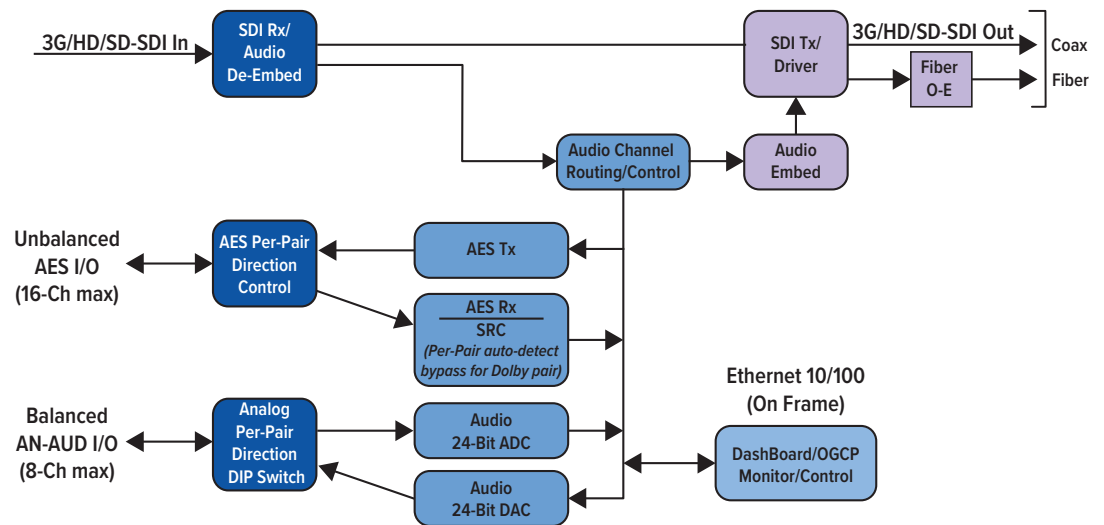
ORDERING INFORMATION

ORDERING INFORMATION	
OG-5220	3G/HD/SD-SDI Fiber-Optic Transceiver with 16-Channel AES / 8-Channel Analog Audio Embed / De-Embed
R2-5220-A	20-Slot Frame Rear I/O Module (Standard Width) (1) 3G/HD/SD-SDI Input BNC, (1) 3G/HD/SD-SDI Output BNC, (1) Fiber Output (LC connectors), (8) Balanced Analog Audio I/O, (8) Unbalanced AES I/O (coaxial; DIN 1.0/2.3)
R2-5220-B	20-Slot Frame Rear I/O Module (Standard Width) (1) 3G/HD/SD-SDI Input BNC, (1) 3G/HD/SD-SDI Output BNC, (1) Fiber Output (LC connectors), (8) Balanced Analog Audio I/O, (8) Unbalanced AES I/O (coaxial; HD-BNC)
R2-5220-C	20-Slot Frame Rear I/O Module (Standard Width) (1) 3G/HD/SD-SDI Input BNC, (1) 3G/HD/SD-SDI Output BNC, (1) Fiber Output (LC connectors), (8) Balanced Analog Audio I/O, Unbalanced AES I/O/COMM (via HD-15 connector)

TECHNICAL SPECIFICATIONS

Electrical

Power	< 18 Watts

SDI/Fiber Inputs/Outputs

Input	1 (75Ω BNC)
Output	1 (75Ω BNC)
SDI Receive Cable Length (1694A)	120m/180m/360m (3G/HD/SD)
SDI Return Loss	>15 dB up to 1.485 GHz; >10 dB up to 2.970 GHz Note: SDI Return loss and receive cable length are affected by rear I/O module used. Specifications represent typical performance.
Alignment Jitter:	3G/HD/SD: < 0.3/0.2/0.2 UI
Timing Jitter:	3G/HD/SD: < 2.0/1.0/0.2 UI
Fiber output	1 Fiber output (LC connector)
Fiber Wavelength Tx	1310 nm
Tx Power	-5.0 dBm (min)
SDI Formats	SMPTE 259M, SMPTE 292M, SMPTE 424M

Audio Conversion Format

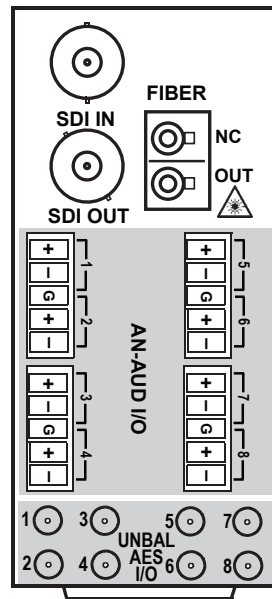| 48 kHz sampling, 24-bit. Auto-SRC bypass for Dolby inputs. Analog audio I/O conforms to +24 dBu <=> 0 dBFS. |
|---|

Analog Audio Specifications

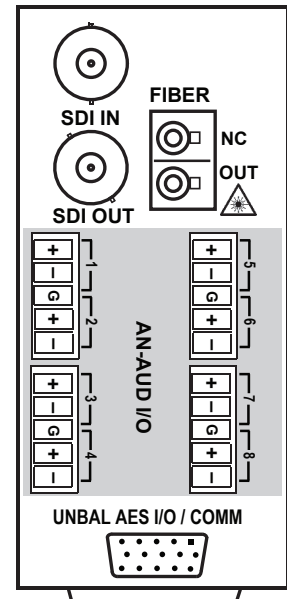| Input Impedance	>10 kΩ
Reference Level	-20 dBFS
Nominal Level	+4 dBu
Input Clip Level	+24 dBu (0 dBFS)
Freq. Response	±0.2 dB (20 Hz to 20 kHz)
SNR	115 dB (A weighted)
THD+N:	-96 dB (20 Hz to 10 kHz)
Crosstalk	-106 dB (20 Hz to 20 kHz)
Output Impedance	< 50 Ω
Max. Output Level	+24 dBu (0 dBFS)

Discrete Audio Input/Output

(8) Unbalanced AES (AES-3id; 75Ω) with per-pair port direction controls
(8) Balanced Analog Audio with per-pair port direction controls

REAR MODULE MODELS

R2-5220-A
R2-5220-B

R2-5220-C

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