

# Talon openGear Specs - Encoders

## H.265 | H.264 | 10-bit 4:2:2

### FEATURES

- Embedded 16 Audio Channels per Input
- **Color Depth 10-bit 4:2:2**
- **HDR (HLG)**
- **NVME Interface for on-board video archive storage**
- **Embedded Timecode from SDI → Transport Stream (SMPTE12M-2)**
- **SCTE104 from SDI → Embedded as SCTE35 in transport stream**
- Protocols: RTMP(S), UDP, RTP, RTSP, Zixi™, SRT™,
- Scaling, Frame Rate Conversion, De-Interlacing
- Audio Compression AAC-LC, OPUS
- CEA-708 Closed Caption Support
- **REC 2020, REC 709 Support**
- **SMPTE 2038 Support**
- **Dual GigE Ethernet**, 1x RJ45, 1x openGear Frame (requires Ross Video MFC-OG3-N Advanced Networking Frame Controller)
- JSON REST API
- Secure HTTPS (SSL) web-based management
- OpenVPN and OpenConnect Client
- Whitelist/Firewall for management IP access
- **KLV support for in-band SDI and out-of-band RTP IP**

### Models:

- |           |  |
|-----------|--|
| OG-3G-2E  | Dual Channel 3G-SDI                                  |
| OG-12G-2E | Dual Channel 12G-SDI (1x 4K60 or 2x 1080P60 Encodes) |
| OG-3G-4E  | Quad Channel 3G-SDI (release summer 2024)            |

### SPECIFICATIONS:

#### I/O Connections:

- HD-BNC for SDI
- Ethernet #1 RJ45
- Ethernet #2 openGear Frame

#### Video Formats

- DCI 4K at 23.98/24/25/29.97/30/50/59.94/60 fps (OG-12G-2E)
- UHD 4K at 23.98/24/25/29.97/30/50/59.94/60 fps (OG-12G-2E)
- 1080p at 23.98/24/25/29.97/30/50/59.94/60 fps
- 1080i at 30/25 fps (encoded as progressive)
- 720p at 25/29.97/30/50/59.94/60 fps
- 576i 25 fps (encoded as progressive)
- 480i 30fps (encoded as progressive)

#### In the Box:

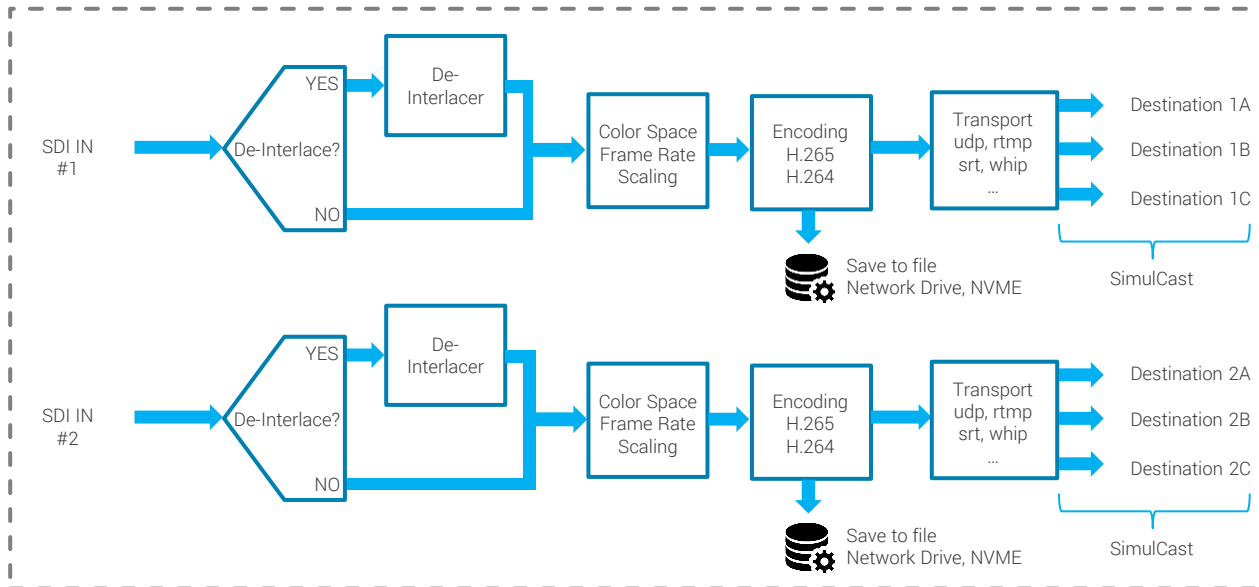
- OpenGear Card
- Rear I/O Module

#### Mechanical:

- Density: up to 20 Cards per 2U Frame (OG3 and OGx Frames)
- Power consumption: 13W
- Operating Temperature -20C to 60C
- Operating Humidity 5% to 95% non-condensing



# Talon openGear OG-12G-2E 4K Encoder



**Simulcast:**  
Multiple streams with identical encode settings but different destination addresses (feature only applies to RTMP)

## Encoding Limitations:

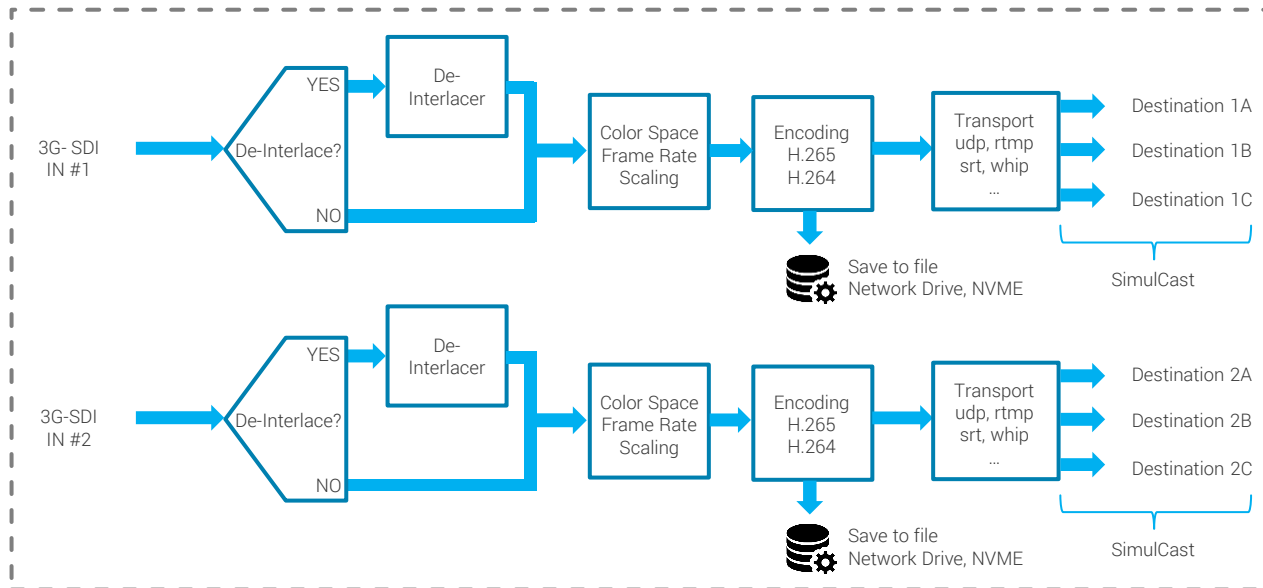
### 12G-SDI Inputs

- 1x encode up to 10-bit **4K60** (single channel of either Input #1 or Input #2)
- 2x encodes up to 10-bit **1080P60** (dual channel encoding - Input #1 and Input #2)

### 6G-SDI Inputs

- 2x encodes up to 10-bit **4K30** (dual channel encoding - Input #1 and Input #2)

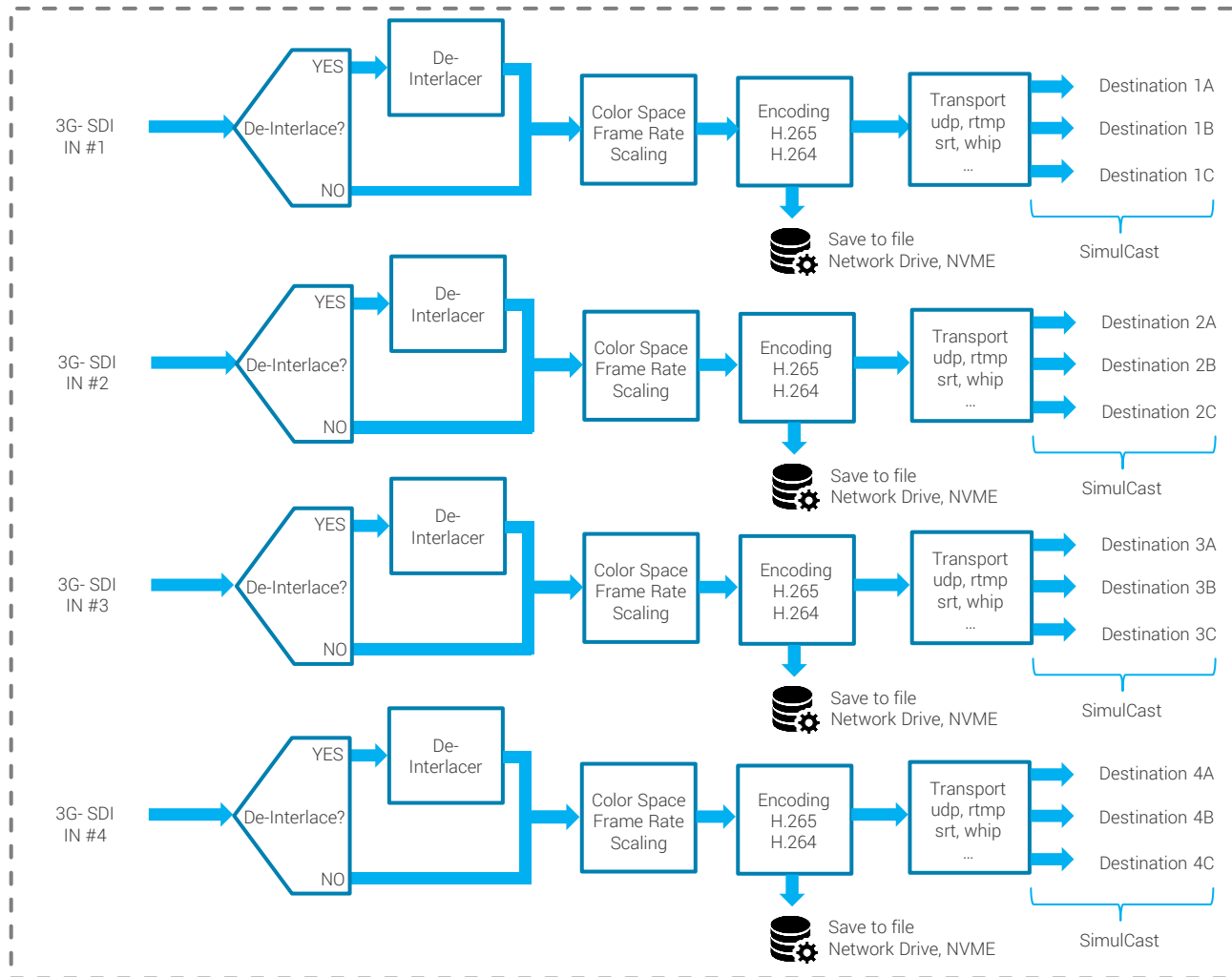
# Talon openGear OG-3G-2E Dual HD Encoder



Pipeline supports two 3G-SDI inputs and two encodes up to 1080P60

**Simulcast:**  
Multiple streams with identical encode settings but different destination addresses (feature only applies to RTMP)

# Talon openGear OG-3G-4E Quad HD Encoder



Pipeline supports four 3G-SDI inputs and four encodes up to **1080P60**

**Simulcast:**  
Multiple RTMP streams with identical encode settings but different destination addresses (feature only applies to RTMP)