

# 7705EO

## SDI Electrical to Optical Converter, 19.4Mb/s or 143-540Mb/s

### ►Features & Benefits

- Electrical to optical converter for all SMPTE 259M standards with operation from 143Mb/s-360Mb/s
- Supports additional standards of SMPTE 305M (SDTi) SMPTE 310M (19.4Mb/s), SMPTE 344M (540Mb/s), M2S and DVB-ASI (270Mb/s)
- Compatible with multi-mode or single-mode fiber
- Fully hot-swappable from front of frame with no fiber or BNC disconnect/reconnect required
- Occupies one card slot and can be housed in either a 1RU frame which will hold up to 3 modules, a 3RU frame which will hold up to 15 modules, 350FR portable frame that holds up to 7 modules or a standalone frame which will hold 1 module
- Comprehensive signal and card status monitoring via four digit card edge display

### Input

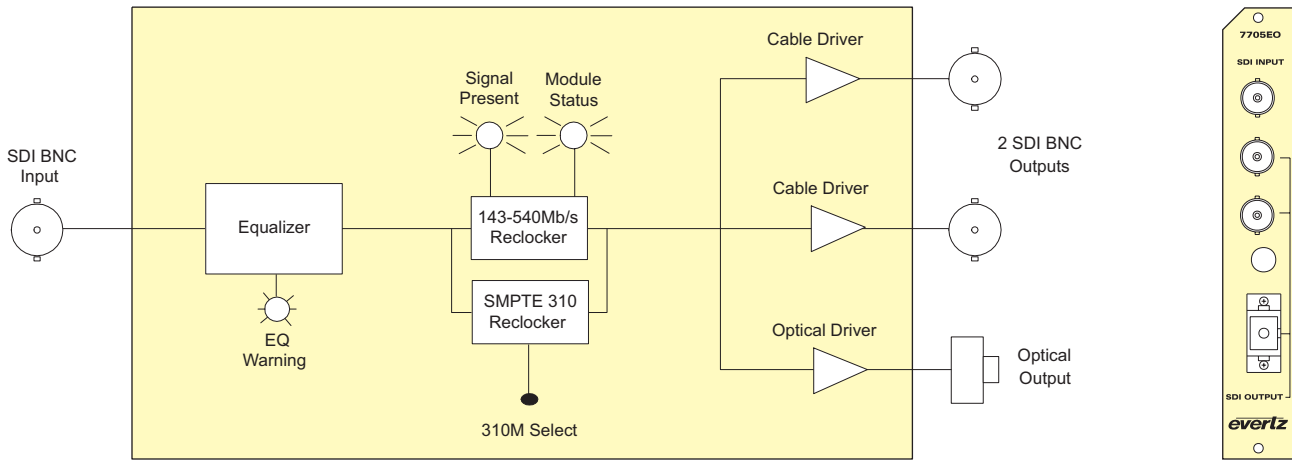
- Automatic input cable equalization to > 300m @ 270Mb/s (Belden 8281)

### Outputs

- Two reclocked serial digital BNC outputs for loop-through or monitoring
- One reclocked fiber output available in 1310nm or 1550nm
- Wideband Jitter < 0.2 UI
- SC/PC, ST/PC, FC/PC connector options

### Status LEDs

- Signal presence indication
- Maximum equalization warning indication
- Module status indication



### ►Specifications

**Standards:** SMPTE 259M A, B, C, D, SMPTE 297M, SMPTE 305M, SMPTE 310M, SMPTE 344M, M2S, DVB-ASI

#### Serial Video Input:

**Connector:** 1 BNC per IEC 61169-8 Annex A  
**Equalization:** Automatic to 300m @ 270Mb/s with Belden 8281 (or equivalent)  
**Return Loss:** > 15dB up to 540Mb/s

#### Serial Video Outputs:

**Number of Outputs:** 2 per card-reclocked  
**Connector:** 1 BNC per IEC 61169-8 Annex A  
**Signal Level:** 800mV nominal  
**DC Offset:** 0V ±0.5V  
**Rise and Fall Time:** 900ps nominal  
**Overshoot:** < 10% of amplitude  
**Return Loss:** > 15dB up to 540Mb/s  
**Wideband Jitter:** < 0.2 UI

#### Optical Outputs:

**Number of Outputs:** 1  
**Connector:** SC/PC, ST/PC, FC/PC female housing  
**Return Loss:** > 14dB  
**Wavelength:** 1310nm, 1550nm

#### Optical Power:

1310nm FP: -7dBm ±1dBm  
 1550nm DFB: 0dBm ±1dBm

#### Electrical:

**Voltage:** +12V DC  
**Power:** 6W

#### Physical (number of slots):

350FR: 1  
 7700FR-C: 1  
 7800FR: 1

#### Compliance:

**Laser Safety:** Class 1 laser product  
 Complies with 24 CFR 1040.10 and 1040.11  
 IEC 60825-1  
**EMI/RFI:** Complies with FCC Part 15, Class A  
 EU EMC directive

#### Receiver Compatibility Chart:

| MODEL #             | SD-SDI | HD-SDI |
|---------------------|--------|--------|
| 2405/7705/7707OE    | x      |        |
| 2405/7705/7707OE-HD | x      |        |
| 7705/7707OE-3       | x      |        |
| 7705/7707OE-3-HD    | x      |        |
| 7707ADVR            | x      |        |
| 7707ADVR-HD         | x      |        |
| 7707VAR-HD          | x      |        |

### ►Ordering Information

|                 |   |
|-----------------|---|
| <b>7705EO13</b> | SDI Electrical to Optical Converter, 19.4Mb/s or 143-540Mb/s, 1310nm, FP Laser  |
| <b>7705EO15</b> | SDI Electrical to Optical Converter, 19.4Mb/s or 143-540Mb/s, 1550nm, DFB Laser |

#### Connector Suffix

|            |       |
|------------|-------|
| <b>+SC</b> | SC/PC |
| <b>+ST</b> | ST/PC |
| <b>+FC</b> | FC/PC |

#### Enclosures

|                 |  |
|-----------------|--|
| <b>350FR</b>    | 3RU Portable Multiframe which holds up to 7 single slot modules  |
| <b>7700FR-C</b> | 3RU Multiframe which holds up to 15 single slot modules          |
| <b>7800FR</b>   | 3RU Multiframe which holds up to 15 single slot modules          |
| <b>7801FR</b>   | 1RU Multiframe which holds up to 4 single or 2 dual slot modules |
| <b>7701FR</b>   | 1RU Multiframe which holds up to 3 single or dual slot modules   |
| <b>S7701FR</b>  | Standalone Enclosure   |

**Ordering Options** Rear Plate and Fiber Connector must be specified at time of order  
 Eg: Model +SC +3RU

#### Rear Plate Suffix

|             |  |
|-------------|--|
| <b>+3RU</b> | 3RU Rear Plate for use with 350FR, 7700FR-C or 7800FR Multiframe |
| <b>+1RU</b> | 1RU Rear Plate for use with 7701FR Multiframe                    |
| <b>+SA</b>  | Standalone Enclosure Rear Plate                                  |