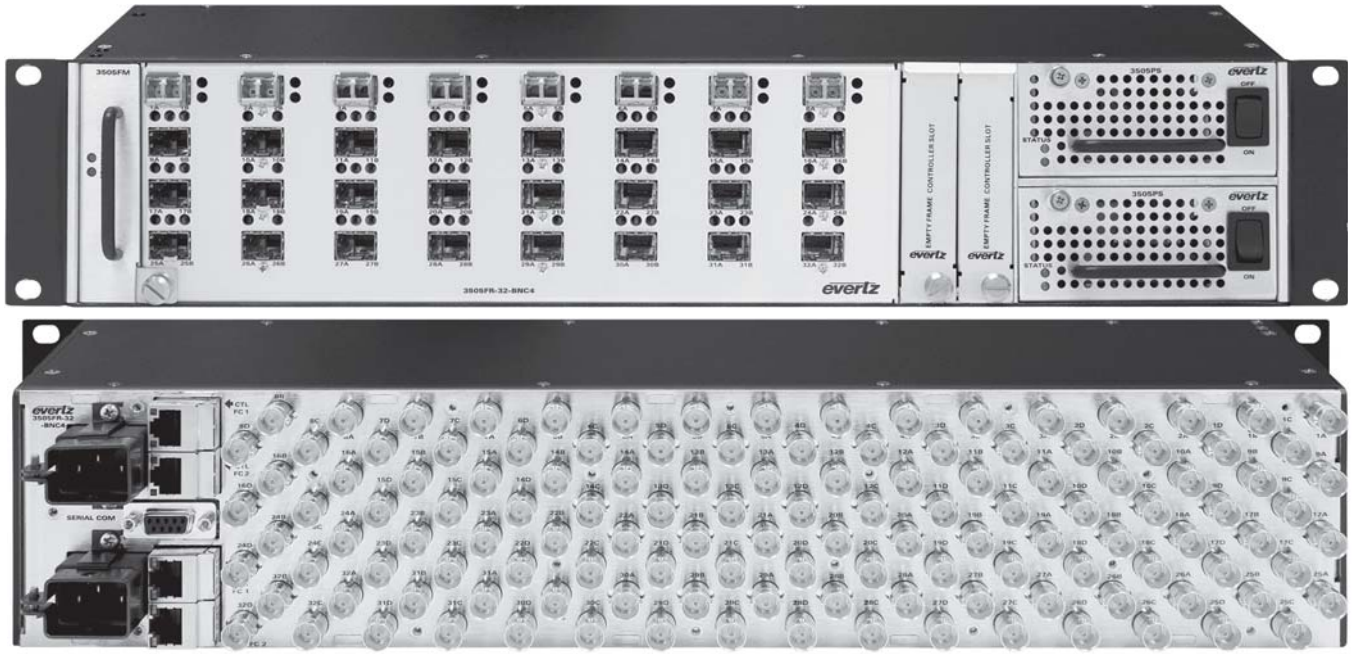
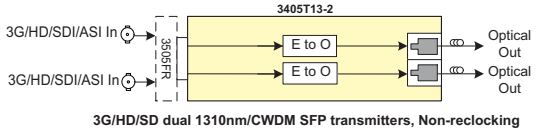
# 3505FR-32-BNC4

*High Density Fiber Optic SFP BNC Frame*

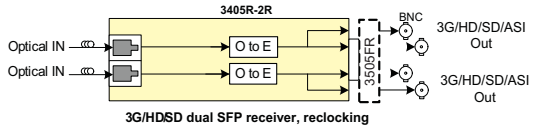
## 3505FR-32-BNC4



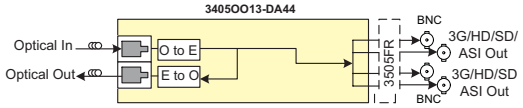
## SFP Options



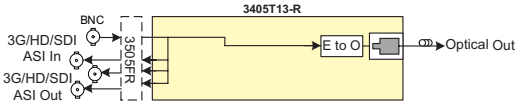

3G/HD/SD dual 1310nm/CWDM SFP transmitters, Non-reclocking



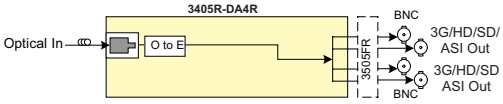

3G/HD/SD dual SFP receiver, reclocking



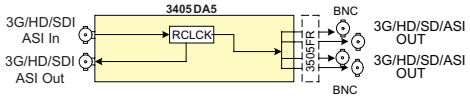

3G/HD/SD Reclocked SFP receiver. Reclocked optical loop output + four reclocked electrical outputs




3G/HD/SD Reclocked SFP transmitter. Triple reclocked loop output




3G/HD/SD SFP reclocked receiver, quad reclocked electrical outputs




3G/HD/SD SFP Distribution Amplifier, five reclocked electrical outputs

The Evertz® 3505FR-32-BNC4 SFP frame is the ideal solution for today's low cost, high density fiber optic distribution needs. The 3505FR-32-BNC4 provides the flexibility to handle the high-speed requirements of 3G and HDTV as well as SD-SDI, SDTi, and DVB-ASI.

All components are hot swappable through the front of the frame including SFPs, frame controllers and power supplies. This ensures the unit can be fully serviceable in the field without having to be de-cabled or removed from the rack.

The 3505FR-32-BNC4 is a 2RU frame designed to house up to 32 Evertz® SFP modules. This provides up to 64EO or 64OE in two units of space. The frame can be configured for a mixture of transmit, receive and distribution modules. See SFP options above.

The 3505FR-32-BNC4 is VistaLINK® -capable with support for primary and secondary frame controllers.

The 3505FR-32-BNC4 frame comes with a single power supply and fan module. Frame controllers, redundant power supply and SFP's are must be ordered separately.

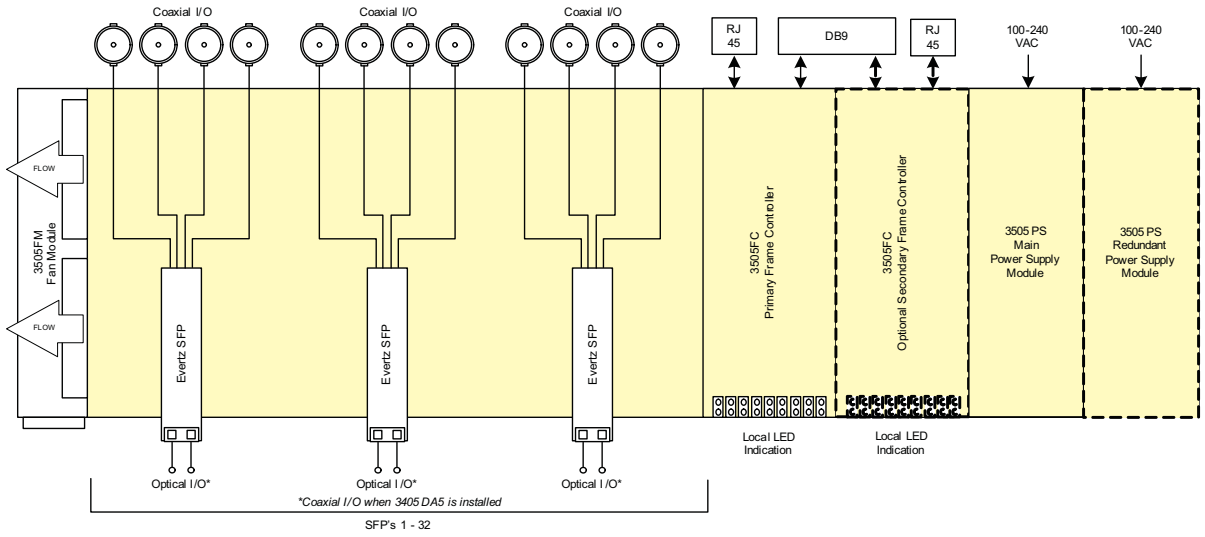
### Features & Benefits

- Dual Power supplies (primary and redundant) are available
- Houses up to 32 front loading Evertz® 3405 SFP modules
- Each slot can be used as an input or output based on SFP type
- Dual primary & secondary 3505FC Frame Controllers for full VistaLINK® SNMP control and monitoring are available
- No electrical re-cabling required when hot swapping SFP modules
- The industry's highest density optical conversion platform with up to 64 EO or 64 OE or (for any combination thereof) in 2RU

*The Complete Solution Provider*

# 3505FR-32-BNC4

*High Density Fiber Optic SFP BNC Frame*




## Specifications (Note: Electrical input & output specs only apply to reclocking SFP modules)

**System:**

| | |
|---|---|
| Density: | Up to 64 EO, OE, or mixture of EO and OE in a 2RU unit |
| Impedance: | 75Ω |

**Communication and Control:**

| | |
|---|---|
| Serial: | RS-232 - single Female 9-pin D connector |
| Ethernet: | SNMP over IEEE 802.3/U (10/100 BaseTx) RJ45 connector for M&C |
| Control: | VistaLINK®/SNMP |

**Optical Output:**

| | |
|---|---|
| Number of Outputs: | Up to 2 per SFP |
| Connector: | LC/UPC |
| Optical Power: | |
| Standard: | -2dBm +/-1dBm |
| -S (Short haul): | -7dBm+/-1dBm |
| CWDM: | +3.5dBm +/-1dBm |
| Wavelength: | |
| Standard & -S: | 1310nm |
| CWDM: | 1270nm-1610nm ITU-T G.694.2 compliant |

**Optical Input:**

| | |
|---|---|
| Number of Inputs: | Up to 2 per SFP |
| Connector: | LC/UPC |
| Operating Wavelength: | 1270nm to 1610nm |
| Maximum Input Power: | |
| Standard: | -1dBm |
| Optical Sensitivity: | |
| Standard: | -21dBm at 2.97Gb/s pathological Level A<br>-23dBm at 2.97Gb/s color bars |

**Electrical Inputs:**

| | |
|---|---|
| Reclocked Standard: | SMPTE 424M (3 Gb/s), ST 292-1 (1.5Gb/s), SMPTE 259M (270Mb/s), DVB-ASI |
| Connector:: | BNC Per IEC 61169-8 Annex A |
| Equalization: | Automatic to 80m @ 3 Gb/s 100m@ 1.5Gb/s 250m @ 270Mb/s (with Belden 1694A or equivalent) |
| Return Loss: | > 15dB up to 1.5GHz<br>> 10dB up to 3GHz |

**Electrical Outputs:**

| | |
|---|---|
| Connector: | BNC per IEC 61169-8 Annex A |
| Impedance: | 75Ω (nominal) |
| Signal Level: | 800mV (nominal) |
| DC Offset: | 0V +/-0.5V |
| Rise and Fall Time (Reclocked SFP's only): | |
| | <135ps (HD/3G) |
| | < 900ps (SD) |
| Overshoot(Reclocked SFP's only) | |
| | < 10% of amplitude |
| Return Loss: | >15dB to 1.5GHz |
| | >10dB to 3GHz |
| Alignment Jitter(Reclocked SFP's only): | |
| | < 0.2UI (Reclocked) to 1.485Gb/s |
| | < 0.3UI (Reclocked) to 2.97Gb/s |

**Electrical:**

| | |
|---|---|
| AC Input: | Auto-ranging, 100-240VAC, 50/60Hz |
| Power: | 200W max |
| Connector: | IEC 320 - 1 per power supply |

**Physical:**

| | |
|---|---|
| Dimensions: | 3.5"H x 19"W x 5.5"D |
| Module Capacity: | 64 Evertz 3405 or 3505 SFP's |

## Ordering Information

| | |
|---|---|
| **3505FR-32-BNC4** | High Density Fiber Optic SFP BNC Frame |

*NOTE: Multimode applications require a 5dB optical attenuator at the output of all transmitting ports. Contact factory for all multimode applications.*

**Ordering Options:**

| | |
|---|---|
| **+35PS** | Redundant power supply |

**Accessories:**

| | |
|---|---|
| **3505FC** | SNMP Frame Controller |
| **3505FM** | Spare/replacement fan module |
| **J/LC/LC/ATTEN-5DB** | 5dB optical attenuator. Required for multimode applications |
| **3505PS** | Spare/replacement power supply module |

**Evertz SFP modules:**

| | |
|---|---|
| **3405T13-2** | 3G/HD/SD dual 1310nm SFP transmitters. Non-reclocking |
| **3405T13-2-S** | 3G/HD/SD dual 1310nm SFP transmitters. Non-reclocking. (Low optical power for short haul, interfacility, and multimode applications) |
| **3405Txx/yy-2** | 3G/HD/SD dual CWDM SFP transmitters. Non-reclocking |
| **3405R-2R** | 3G/HD/SD dual SFP receiver, reclocking |
| **3405T13-R** | 3G/HD/SD Reclocked SFP transmitter. Three reclocked electrical loop output |
| **3405OO13-DA4** | 3G/HD/SD Reclocked SFP receiver. Reclocked optical loop output and four reclocked electrical outputs |
| **3405OOxx-DA4** | 3G/HD/SD Reclocked SFP receiver, reclocked CWDM optical loop output and four reclocked electrical outputs |
| **3405DA5** | 3G/HD/SD Distribution Amplifier, five reclocked electrical outputs |
| **3405R-DA4R** | 3G/HD/SD SFP Reclocked receiver, quad reclocked electrical outputs |

*Note: xx versions include the following, 27,29,31,33,35,37,43,45,47,49,51,53,55,57,59,61*
*Note: xx/yy versions include the following, 27/29, 31/33, 35/37, 43/45 - Low Band*
*47/49, 51/53, 55/57, 59/61 - High Band*