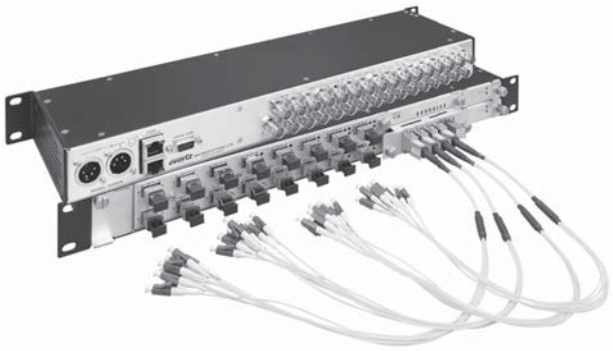
3405FR-BNC, 3405FR-BNC-48V

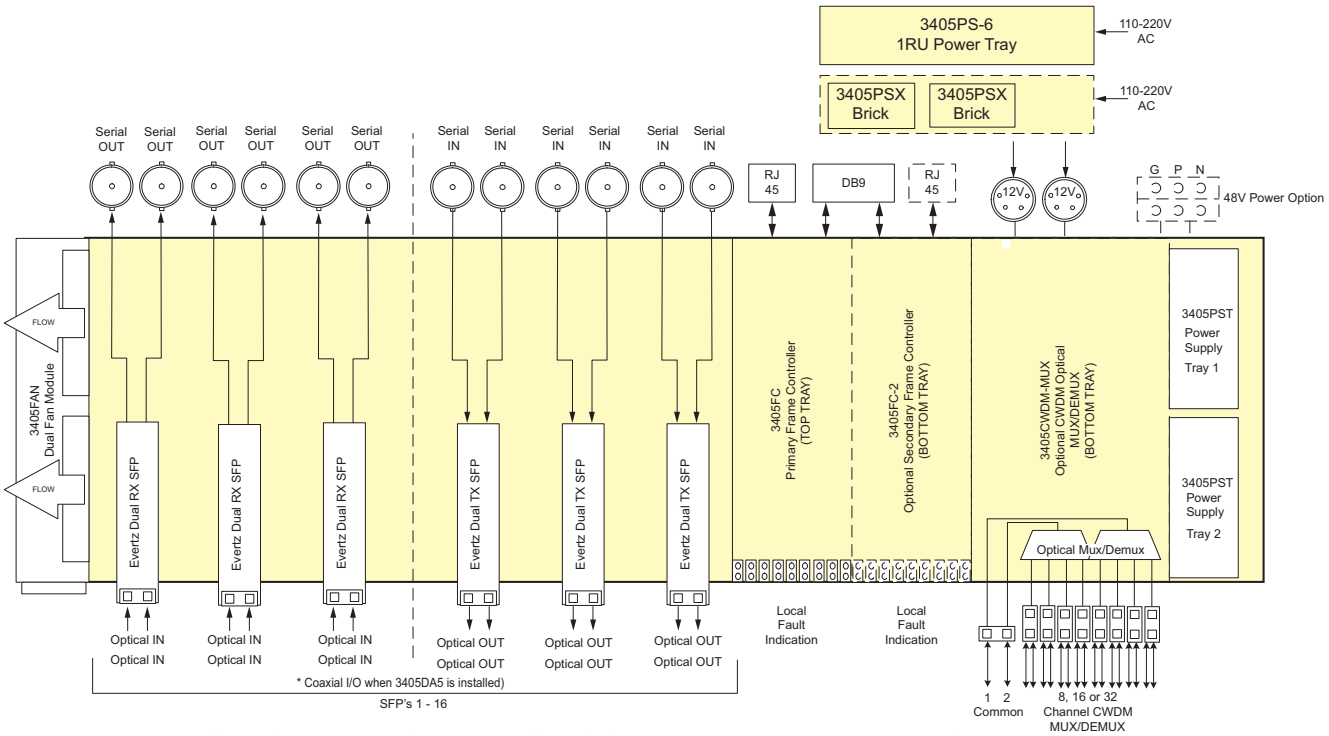
Fiber Optic SFP BNC Frame

The Evertz 3405FR-BNC is a high-capacity bulk optical conversion platform. With the ability to accommodate 16 Evertz 3405 series SFP's, up to 32 optical to electrical or electrical to optical conversions may be performed in a single frame. Occupying only 1RU of rack space, the 3405FR-BNC is ideal for space-limited applications. The 3405FR-BNC can accommodate any 3405 series SFP, allowing the SFP cages to be populated as needed with optical transmit, receive, regenerator or electrical distribution amplifier SFP's. The SFP positions are not limited by function - any combination of 3405SFP types may be used, making countless versatile combinations possible. Benefits of fiber optics for video transport include longer attainable distances, smaller/lighter cabling, reduced cable tray loads and electrical isolation. The 3405FR-BNC provides a low-overhead means for simple electrical/optical conversion for interfacility transport, as well as overcoming the limitations imposed by coaxial cable in intra-facility applications.



3405 series SFP's are able to handle ASI, SDI, HD-SDI and 3G digital video signals, as well as other signal rates up to 3 Gig on non-reclocked versions (e.g. MADI). The SFP modules are hot-swappable, allowing for quick servicing or easy reconfiguration or expansion at any time. 16 CWDM wavelengths are also available, which when combined with Evertz CWDM products allow up to 16 signals to be multiplexed on to a single fiber, greatly conserving fiber usage.

The 3405FR-BNC supports full remote monitoring and control over SNMP/VistaLINK® when optional frame controllers are installed. The platform supports a single frame controller, or dual modules may be installed for redundancy. Numerous parameters such as optical power and electrical signal presence and rate can be accessed remotely to monitor system integrity. The 3405FR-BNC was designed to provide carrier-grade reliability with all SFP's, power supplies, frame controllers and the fan module being hot-swappable. There are no active components in the frame itself, a patent-penBNCg feature from Evertz ensuring that the frame and coaxial cabling never need to be removed from the rack for service.



**Note: Optional redundant frame controller (3405FC-2) cannot be used simultaneously with the 3405CWDM series units

Features & Benefits

- High density – up to 32 conversions in 1RU
- Any combination of 3405SFP types may be installed in any slots, incluBNCg optical transmit, receive, regenerator and electrical distribution amplifiers
- All active components are hot-swappable
- SFP modules can be hot-swapped without de-cabling coaxial connections
- Accommodates single or dual redundant frame controllers
- Accommodates redundant power supplies
- Comprehensive signal and SFP status monitoring remotely through SNMP and VistaLINK® when frame controller(s) are installed
- Power options include discrete external supplies, or the 3405PS-6 which may be used to power up to six 3405FR units with redundancy
- Optional integrated CWDM module does not require additional rack space and may be used to condense up to 32 signals on to two fiber strands

The Complete Solution Provider

Specifications

System:

Density: mixture of EO	16 SFP's, Up to 32 EO, OE, or and OE in a 1RU unit
Impedance:	75Ω
Connector:	BNC per IEC 61169-8 Annex A (F-type connector optional)

Communication and Control:

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

Electrical Outputs/Inputs:

Connector:	BNC per IEC 61169-8 Annex A
Impedance:	75Ω (nominal)

Physical:

Dimensions:	1.8"H x 19"W x 4.16"D
Module Capacity:	16 Evertz® SFP modules
Operating Temperature:	0-50°C (with 3405FAN installed) 0-30° C (with 3405FAN-Q installed)

Electrical (12V DC Version):

Power Supply Configuration:	Dual External Supplies(primary / secondary 3405PSX) or 1RU Power Supply Tray (3405PS-6)
Voltage:	DC Input 12V DC(external power supplies required for 110-220V)
Maximum Power Consumption:	40W (fully loaded frame with all accessories) *Note: Power consumption dependent on SFP type*
Connectors:	4 Pin Male XLR (12V DC)
Status Indicators:	PST status LEDs (each per power supply tray)

Electrical (48V DC Version):

Power Supply Configuration:	Dual External Supplies (primary/ secondary)
Voltage:	Auto ranging 36 ↔72V DC
Maximum Power Consumption:	50W Typical (fully loaded frame with all accessories) *Note: Power consumption dependent on SFP type*
Connectors:	3 pin screw terminal strip – 1 per power supply
Status Indicators:	PST status LEDs (each per power supply tray)

Compliance:

Safety:	CSA Listed, Complies with EU Safety Directive
EMC:	Complies with FCC part 15, Class A Complies with EU EMC Directives

3405PSX External Power Supply Brick:

AC Mains Input:	Auto ranging, 100 - 240 VAC, 50/60 Hz
Number of Outputs:	1
Output Voltage:	12VDC
Output Connector:	4 PIN XLR
Max Power Dissipation:	120 W
Status Indicators:	Green OK LED

Ordering Information

3405FR-BNC	Fiber Optic SFP BNC frame (does not include power supplies, SFPs, frame controllers)
3405FR-BNC-48V	Fiber Optic SFP BNC frame with dual 48V DC inlets (does not include power supplies, SFP's, frame controllers)

Note: SFP's sold seprately, please specify at the time of ordering.

Ordering Options (Note: Order one of the power supply options from below)

+Q	3405FAN-Q Dual quiet fan option
+PSX	Single power supply brick
+PSX-2	Dual (redundant) power supply

Power Supplies

3405PSX	External power supply brick (spare or replacement)
3405PS-6	1RU 6 output power supply tray for 3405FR-DIN (powers up to 6 units - primary & secondary)

Accessories

3405FC	3405 Frame controller
3405FC-2	Redundant Frame controller
3405PST	Power supply tray
3405FAN	3405FR-BNC dual FAN module
3405FAN-Q	3405FR-BNC dual quiet FAN module
3405RB	Recessed brackets to provide 5" recessed mounting from front of rack

Evertz SFP Modules

**Note:*

- *Multimode applications require a 5dB optical attenuator at the output of all transmitting ports, except when "-S" short haul version transmitter SFP's are used.*
- *XX versions include the following: 27, 29, 31, 33, 35, 37, 43, 45, 47, 49, 51, 53, 55, 57, 59, 61, see CWDM wavelength ordering information*
- *XX/YY versions include the following: 27/29, 31/33, 35/37, 43/45, 47/49, 51/53, 55/57, 59/61, see CWDM wavelength ordering information*

3405T13-2	Dual channel SFP optical transmitter with standard 1310nm lasers, non-reclocked.
3405T13-2-S	Dual channel SFP optical transmitter with short-haul 1310nm lasers, non-reclocked.
3405TXX/YY-2	Dual channel SFP optical transmitter with CWDM lasers (1270nm to 1610nm), non-reclocked.
3405T13-R	Single channel SFP optical transmitter with standard 1310nm laser, reclocked.
3405T13-R-S	Single channel SFP optical transmitter with short-haul 1310nm laser, reclocked.
3405TXX-R	Single channel SFP optical transmitter with CWDM laser (1270nm to 1610nm), reclocked.
3405R-2R	Dual channel SFP optical receiver, reclocked.
3405R-2	Dual channel SFP optical receiver, non-reclocked .
3405R-DA4R	Single channel SFP optical receiver, reclocked.
3405R-DA4R-H	Single channel SFP optical high-sensitivity receiver, reclocked.
3405OO13-DA4	Single channel SFP optical regenerator with standard 1310nm laser, reclocked.
3405OO13-DA4-H	Single channel SFP optical regenerator with standard 1310nm laser and high sensitivity receiver, reclocked.
3405OOXX-DA4	Single channel SFP optical regenerator with CWDM laser (1270nm to 1610nm), reclocked.
3405OOXX-DA4-H	Single channel SFP optical regenerator with high sensitivity receiver and CWDM laser (1270nm to 1610nm), reclocked.

Fiber Optic Mux/Demux Modules(MTP to LC fanout cable included)

3405CWDM-M8	8 Channel Mux, 1470nm to 1610nm
3405CWDM-D8	8 Channel Demux, 1470nm to 1610nm
3405CWDM-M16	16 Channel Mux, 1270nm to 1610nm
3405CWDM-D16	16 Channel Demux, 1270nm to 1610nm
3405CWDM-2-M8	Dual 8 Channel Mux, 1470nm to 1610nm
3405CWDM-2-D8	Dual 8 Channel Demux, 1470nm to 1610nm
3405CWDM-2-M16	Dual 16 Channel Mux, 1270nm to 1610nm
3405CWDM-2-D16	Dual 16 Channel Demux, 1270nm to 1610nm

Fanout Cables (spare or replacement)

CB-MTP40CM-LCPC-HB	MTP to LC/UPC fanout cable for HIGH band CWDM wavelengths, 1470nm to 1610nm
CB-MTP40CM-LCPC-LB	MTP to LC/UPC fanout cable for LOW band CWDM wavelengths, 1270nm to 1450nm