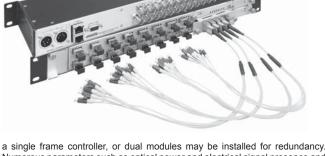
3405FR-BNC, 3405FR-BNC-48V

Fiber Optic SFP BNC Frame

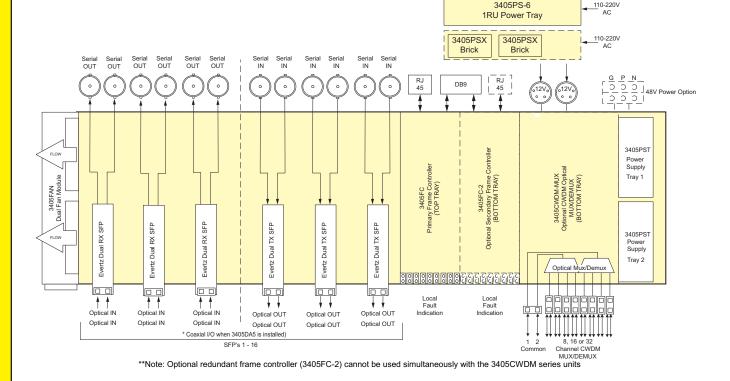
The Evertz 3405FR-BNC is a high-capacity bulk optical conversion platform. With the ability to accommodate 16 Evertz 3405 series SFP's, up to 32 optical to electrical or electrical to optical conversions may be performed in a single frame. Occupying only 1RU of rack space, the 3405FR-BNC is ideal for 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 a (e.g. MADI). The SFP modules are hot-swappable, allowing for quick servicing N or easy reconfiguration or expansion at any time. 16 CWDM wavelengths are also available, which when combined with Evertz CWDM products allow up to the signals to be multiplexed on to a single fiber, greatly conserving fiber usage.



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.

The 3405FR-BNC supports full remote monitoring and control over SNMP/ VistaLINK® when optional frame controllers are installed. The platform supports



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



3405FR-BNC - 3405FR-BNC-48V Fiber Optic SFP BNC Frame



▶Specifications

System:		Electrical (12V DC Ve	rsion):	Connectors:	3 pin screw terminal strip – 1 per
Density:	16 SFP's	Power Supply			power supply
••••••••••••••••••••••••••••••••••••••	Ormitesh	Configuration:	Dual External Supplies(primary /	/ Status Indicators:	PST status LEDs (each per power
Communication and			secondary 3405PSX) or 1PLL Dowor Supply Tray (2405P	PC 6)	supply tray)
Serial:	RS-232 - single Female 9-pin D	Voltaga	1RU Power Supply Tray (3405P		
Therest	connector	Voltage:	DC Input 12V DC(external powe supplies required for 110-220V)		CCA Listed Complian with EU
Ethernet:	SNMP over IEEE 802.3/U (10/100 BaseTx) RJ45 connector	Maximum Power	supplies required for 110-220V)	Safety:	CSA Listed, Complies with EU Safety Directive
Control:	VistaLINK®	Consumption:	40W (fully loaded frame with all accessories)	EMC:	Complies with FCC part 15, Class Complies with EU EMC Directives
Electrical Outputs/In	puts:		Note: Power consumption		
Connector:	BNC per IEC 61169-8 Annex A		dependent on SFP type	3405PSX External P	ower Supply Brick:
Impedance:	75Ω (nominal)	Connectors: Status Indicators:	4 Pin Male XLR (12V DC) PST status LEDs (each per pow	AC Mains Input: /er	Auto ranging, 100 - 240 VAC, 50/60 Hz
Physical:			supply tray)	Number of Outputs:	1
Dimensions:	1.8"H x 19"W x 4.16"D			Output Voltage:	12VDC
Module Capacity:	16 Evertz [®] SFP modules	Electrical (48V DC Ve	rsion):	Output Connector:	4 PIN XLR
Operating Temperatur	e: 0-50°C (with 3405FAN installed)	Power Supply		Max Power Dissipation	
	0-30° C (with 3405FAN-Q installed) Configuration:		Dual External Supplies (primary/	/ Status Indicators:	Green OK LED
		secondary)			
		Voltage:	Auto ranging 36 ↔72V DC		
		Maximum Power Consumption: 50W Typical (fully loaded frame with			
				with	
			all accessories)		
			Note: Power consumption		
			Note: Power consumption		
Ordering Infor	mation		Note: Power consumption		
5		include nower supplies	Note: Power consumption dependent on SFP type		
Ordering Infor 3405FR-BNC	Fiber Optic SFP BNC frame (does not	include power supplies,	Note: Power consumption dependent on SFP type Evertz SFP Modules	ie is compatible with any 3405	series optical or coaxial SFP For
3405FR-BNC	Fiber Optic SFP BNC frame (does not SFPs, frame controllers)		Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram		series optical or coaxial SFP. For P Series" data sheet, and for coaxial
5	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual	48V DC inlets (does not	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple	ease see the "3405 Optical SF	P Series" data sheet, and for coaxial
3405FR-BNC 3405FR-BNC-48V	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual include power supplies, SFP's, frame of	48V DC inlets (does not controllers)	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple		P Series" data sheet, and for coaxial
3405FR-BNC 3405FR-BNC-48V	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual	48V DC inlets (does not controllers)	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple SFP options please see Fiber Optic Mux/Demu	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fano	P Series" data sheet, and for coaxial es" data sheet. ut cable included)
3405FR-BNC 3405FR-BNC-48V Note: SFP's sold se	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual include power supplies, SFP's, frame of prately, please specify at the time of ora	48V DC inlets (does not controllers)	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple SFP options please see Fiber Optic Mux/Demu 3405CWDM-M8	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fano 8 Channel Mux, 1470nm to 16	P Series" data sheet, and for coaxial s" data sheet. ut cable included) 510nm
3405FR-BNC 3405FR-BNC-48V Note: SFP's sold se	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual include power supplies, SFP's, frame of prately, please specify at the time of ora Note: Order one of the power supply o	48V DC inlets (does not controllers)	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple SFP options please see Fiber Optic Mux/Demu 3405CWDM-M8 3405CWDM-D8	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fano 8 Channel Mux, 1470nm to 16 8 Channel Demux, 1470nm to	P Series" data sheet, and for coaxial s" data sheet. ut cable included) 310nm 9 1610nm
3405FR-BNC 3405FR-BNC-48V Note: SFP's sold sej Ordering Options (N +Q	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual include power supplies, SFP's, frame of prately, please specify at the time of ora Note: Order one of the power supply o 3405FAN-Q Dual quiet fan option	48V DC inlets (does not controllers)	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple SFP options please see Fiber Optic Mux/Demu 3405CWDM-M8 3405CWDM-D8	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fano 8 Channel Mux, 1470nm to 8 Channel Mux, 1270nm to 16 Channel Mux, 1270nm to	P Series" data sheet, and for coaxial s" data sheet. ut cable included) 510nm o 1610nm 1610nm
3405FR-BNC 3405FR-BNC-48V Note: SFP's sold sej Ordering Options (N +Q +PSX	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual include power supplies, SFP's, frame of prately, please specify at the time of ora Vote: Order one of the power supply of 3405FAN-Q Dual quiet fan option Single power supply brick	48V DC inlets (does not controllers)	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple SFP options please see Fiber Optic Mux/Demu 3405CWDM-D8 3405CWDM-D8 3405CWDM-D16	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fano 8 Channel Mux, 1470nm to 16 8 Channel Demux, 1470nm to 16 Channel Mux, 1270nm to	P Series" data sheet, and for coaxial s" data sheet. at cable included) s10nm 1610nm 1610nm to 1610nm
3405FR-BNC 3405FR-BNC-48V Note: SFP's sold sej Ordering Options (N +Q	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual include power supplies, SFP's, frame of prately, please specify at the time of ora Note: Order one of the power supply o 3405FAN-Q Dual quiet fan option	48V DC inlets (does not controllers)	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple SFP options please see Fiber Optic Mux/Demu 3405CWDM-M8 3405CWDM-D8 3405CWDM-D16 3405CWDM-2M8	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fano 8 Channel Mux, 1470nm to 16 8 Channel Demux, 1470nm to 16 Channel Mux, 1270nm 16 Channel Demux, 1270nm Dual 8 Channel Mux, 1470nm	P Series" data sheet, and for coaxial s" data sheet. ta cable included) 510nm 1610nm 1610nm to 1610nm to 1610nm
3405FR-BNC 3405FR-BNC-48V Note: SFP's sold se Ordering Options (N +Q +PSX +PSX-2	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual include power supplies, SFP's, frame of prately, please specify at the time of ora Vote: Order one of the power supply of 3405FAN-Q Dual quiet fan option Single power supply brick	48V DC inlets (does not controllers)	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple SFP options please see Fiber Optic Mux/Demu 3405CWDM-D8 3405CWDM-D8 3405CWDM-D16 3405CWDM-2-D8	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fano 8 Channel Mux, 1470nm to 16 Channel Mux, 1470nm to 16 Channel Demux, 1470nm Dual 8 Channel Mux, 1470nm Dual 8 Channel Demux, 1470	P Series" data sheet, and for coaxial s" data sheet. ut cable included) 510nm 1610nm 1610nm to 1610nm to 1610nm nm to 1610nm
3405FR-BNC 3405FR-BNC-48V Note: SFP's sold se Ordering Options (N +Q +PSX +PSX-2 Power Supplies	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual include power supplies, SFP's, frame of prately, please specify at the time of oro Vote: Order one of the power supply of 3405FAN-Q Dual quiet fan option Single power supply brick Dual (redundant) power supply	48V DC inlets (does not controllers) dering.	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple SFP options please sec Fiber Optic Mux/Demu 3405CWDM-M8 3405CWDM-D8 3405CWDM-D16 3405CWDM-2-M8 3405CWDM-2-M8 3405CWDM-2-M8	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fanoi 8 Channel Mux, 1470nm to 1 8 Channel Mux, 1470nm to 16 Channel Mux, 1270nm Dual 8 Channel Mux, 1270nm Dual 8 Channel Demux, 1470 Dual 16 Channel Mux, 1270ni	P Series" data sheet, and for coaxial s" data sheet. ut cable included) 510nm 1610nm 1610nm to 1610nm to 1610nm m to 1610nm m to 1610nm m to 1610nm
3405FR-BNC 3405FR-BNC-48V Note: SFP's sold sej Ordering Options (N +Q +PSX +PSX-2 Power Supplies 3405PSX	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual- include power supplies, SFP's, frame of prately, please specify at the time of oro Note: Order one of the power supply of 3405FAN-Q Dual quiet fan option Single power supply brick Dual (redundant) power supply External power supply brick (spare or o	48V DC inlets (does not controllers) dering. ptions from below)	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple SFP options please see Fiber Optic Mux/Demu 3405CWDM-D8 3405CWDM-D8 3405CWDM-D16 3405CWDM-2-M8 3405CWDM-2-M8 3405CWDM-2-M16 3405CWDM-2-D16	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fano 8 Channel Mux, 1470nm to 16 Channel Mux, 1470nm to 16 Channel Demux, 1470nm Dual 8 Channel Mux, 1470nm Dual 8 Channel Demux, 1470	P Series" data sheet, and for coaxial s" data sheet. ut cable included) 510nm 1610nm 1610nm to 1610nm to 1610nm m to 1610nm m to 1610nm m to 1610nm
3405FR-BNC 3405FR-BNC-48V Note: SFP's sold se Ordering Options (N +Q +PSX +PSX-2 Power Supplies	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual include power supplies, SFP's, frame of prately, please specify at the time of or Note: Order one of the power supply of 3405FAN-Q Dual quiet fan option Single power supply brick Dual (redundant) power supply External power supply brick (spare or n 1RU 6 output power supply tray for 34	48V DC inlets (does not controllers) dering. ptions from below)	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple SFP options please see Fiber Optic Mux/Demu 3405CWDM-M8 3405CWDM-D8 3405CWDM-D8 3405CWDM-D16 3405CWDM-2-M8 3405CWDM-2-D8 3405CWDM-2-D8 3405CWDM-2-D16 3405CWDM-2-D16	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fano 8 Channel Mux, 1470nm to 16 8 Channel Demux, 1470nm to 16 Channel Demux, 1270nm Dual 8 Channel Mux, 1270nm Dual 8 Channel Demux, 1470 Dual 16 Channel Mux, 1270ni Dual 16 Channel Demux, 1270ni Dual 16 Channel Demux, 1270ni	P Series" data sheet, and for coaxial s" data sheet. ut cable included) 510nm 1610nm 1610nm to 1610nm to 1610nm m to 1610nm m to 1610nm m to 1610nm
3405FR-BNC 3405FR-BNC-48V Note: SFP's sold se Ordering Options (N +Q +PSX +PSX-2 Power Supplies 3405PSX	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual- include power supplies, SFP's, frame of prately, please specify at the time of oro Note: Order one of the power supply of 3405FAN-Q Dual quiet fan option Single power supply brick Dual (redundant) power supply External power supply brick (spare or o	48V DC inlets (does not controllers) dering. ptions from below)	Note: Power consumption dependent on SFP type The 3405FR-BNC fram optical SFP options, ple SFP options please sec Fiber Optic Mux/Demu 3405CWDM-M8 3405CWDM-D8 3405CWDM-D16 3405CWDM-2-D8 3405CWDM-2-M8 3405CWDM-2-D16 6 Fanout Cables (spare	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fanoi 8 Channel Mux, 1470nm to 1 8 Channel Demux, 1470nm to 16 Channel Mux, 1270nm Dual 8 Channel Demux, 1270nm Dual 8 Channel Demux, 14700 Dual 16 Channel Mux, 1270nn Dual 16 Channel Demux, 127 or replacement)	P Series" data sheet, and for coaxial s" data sheet. ut cable included) 510nm 1610nm to 1610nm to 1610nm nm to 1610nm nm to 1610nm m to 1610nm 0nm to 1610nm
3405FR-BNC 3405FR-BNC-48V Note: SFP's sold se Ordering Options (N +Q +PSX +PSX-2 Power Supplies 3405PSX 3405PS-6	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual include power supplies, SFP's, frame of prately, please specify at the time of or Note: Order one of the power supply of 3405FAN-Q Dual quiet fan option Single power supply brick Dual (redundant) power supply External power supply brick (spare or n 1RU 6 output power supply tray for 34	48V DC inlets (does not controllers) dering. ptions from below)	Note: Power consumption dependent on SFP type The 3405FR-BNC fram optical SFP options, ple SFP options please sec Fiber Optic Mux/Demu 3405CWDM-M8 3405CWDM-D8 3405CWDM-D16 3405CWDM-2-D8 3405CWDM-2-M8 3405CWDM-2-D16 6 Fanout Cables (spare	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fano 8 Channel Mux, 1470nm to 1 8 Channel Demux, 1470nm to 16 Channel Mux, 1270nm Dual 8 Channel Mux, 1270nm Dual 8 Channel Mux, 1270nn Dual 16 Channel Mux, 1270nn	P Series" data sheet, and for coaxial s" data sheet. ut cable included) 510nm 1610nm to 1610nm to 1610nm nm to 1610nm m to 1610nm onm to 1610nm 0nm to 1610nm
3405FR-BNC 3405FR-BNC-48V Note: SFP's sold se Ordering Options (N +Q +PSX +PSX +PSX-2 Power Supplies 3405PSX 3405PS-6 Accessories	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual include power supplies, SFP's, frame of prately, please specify at the time of oro Note: Order one of the power supply o 3405FAN-Q Dual quiet fan option Single power supply brick Dual (redundant) power supply External power supply brick (spare or r 1RU 6 output power supply tray for 34 units - primary & secondary)	48V DC inlets (does not controllers) dering. ptions from below)	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple SFP options please see Fiber Optic Mux/Demu 3405CWDM-08 3405CWDM-08 3405CWDM-08 3405CWDM-076 3405CWDM-2-D8 3405CWDM-2-D8 3405CWDM-2-D8 3405CWDM-2-D8 3405CWDM-2-D16 3405CWDM-2-D16 3405CWDM-2-D16 3405CWDM-2-D16	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fano 8 Channel Mux, 1470nm to 16 8 Channel Demux, 1470nm to 16 Channel Demux, 1270nm Dual 8 Channel Mux, 1270nm Dual 8 Channel Mux, 1470nm Dual 16 Channel Mux, 1270n Dual 16 Channel Mux, 1270n Dual 16 Channel Demux, 127 or replacement) HB MTP to LC/UPC fanout ca wavelengths, 1470nm to 1	P Series" data sheet, and for coaxial s" data sheet. ut cable included) 510nm 1610nm 1610nm 10 1610nm 10 1610nm 10 1610nm 10 1610nm 10 1610nm 0nm to 1610nm ble for HIGH band CWDM 610nm
405FR-BNC 405FR-BNC-48V Note: SFP's sold sep Ordering Options (N -Q -PSX -PSX-2 Power Supplies 405PSX 405PS-6	Fiber Optic SFP BNC frame (does not SFPs, frame controllers) Fiber Optic SFP BNC frame with dual include power supplies, SFP's, frame of prately, please specify at the time of or Note: Order one of the power supply of 3405FAN-Q Dual quiet fan option Single power supply brick Dual (redundant) power supply External power supply brick (spare or 1 1RU 6 output power supply tray for 34	48V DC inlets (does not controllers) dering. ptions from below)	Note: Power consumption dependent on SFP type Evertz SFP Modules The 3405FR-BNC fram optical SFP options, ple SFP options please see Fiber Optic Mux/Demu 3405CWDM-08 3405CWDM-08 3405CWDM-08 3405CWDM-076 3405CWDM-2-D8 3405CWDM-2-D8 3405CWDM-2-D8 3405CWDM-2-D8 3405CWDM-2-D16 3405CWDM-2-D16 3405CWDM-2-D16 3405CWDM-2-D16	ease see the "3405 Optical SF e the "3405 Coaxial SFP Serie ux Modules(MTP to LC fano 8 Channel Mux, 1470nm to 1 8 Channel Demux, 1470nm to 16 Channel Mux, 1270nm Dual 8 Channel Mux, 1270nm Dual 8 Channel Mux, 1270nn Dual 16 Channel Mux, 1270nn	P Series" data sheet, and for coaxial s" data sheet. ut cable included) 510nm 1610nm 1610nm to 1610nm ito 1610nm into 1610nm mito 1610nm 0nm to 1610nm 0nm to 1610nm ble for HIGH band CWDM 610nm ble for LOW band CWDM

wavelengths, 1270nm to 1450nm

 Accessories

 3405FC
 3405 Frame controller

 3405FC-2
 Redundant Frame controller

 3405FST
 Spare power supply tray

 3405FAN
 Spare 3405FR-BNC dual FAN module

 3405FB
 Recessed brackets to provide 5" recessed mounting from front of rack

3405FR-DIN, 3405FR-DIN-48V Fiber Optic SFP DIN Frame Pubbl.2016/03

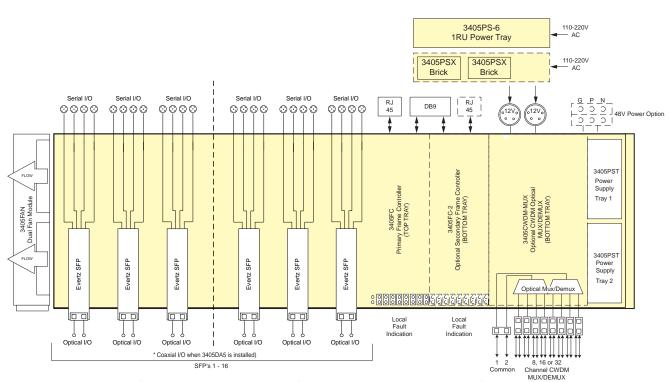
The Evertz 3405FR-DIN is a high-capacity bulk optical conversion platform. With the ability to accommodate 16 Evertz 3405 series SFP's, up to 32 optical to electrical or electrical to optical conversions may be performed in a single frame. Occupying only 1RU of rack space, the 3405FR-DIN is ideal for space-limited applications. The 3405FR-DIN 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-DIN 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-DIN 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-DIN 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-pending 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



3405FR-DIN, 3405FR-DIN-48V Fiber Optic SFP DIN Frame



Density:	Up to 32 EO, OE, or mixture of EO and OE in a 1RU unit	Power Supply			supply tray)
		Configuration:	Dual External Supplies (primary/ secondary 3405PSX) or 1RU Power	Compliance:	
Communication and C	Control:		Supply Tray (3405PS-6)	Safety:	CSA Listed, Complies with EU
Serial:	RS-232 - single Female 9-pin D		Voltage:DC Input 12V DC (external	•	Safety Directive
	connector		power supplies required for 110-	EMC:	Complies with FCC part 15, Class A
Ethernet:	SNMP over IEEE 802.3/U (10/100		220V)		Complies with EU EMC Directives
	BaseTx) RJ45 connector	Max Power Consum			
Control:	VistaLINK®		40W (fully loaded frame with all	3405PSX External Po	
			accessories)	AC Mains Input:	Auto ranging, 100 - 240 VAC,
Electrical Inputs/Outp			Note: Power consumption		50/60 Hz
Reclocked Standard:	SMPTE 424M (3 Gb/s), ST 292-1		dependent on SFP type	Number of Outputs:	1
	(1.5Gb/s),	Connectors:	4 Pin Male XLR (12V DC)	Output Voltage:	12VDC
• •	SMPTE ST 259 (270Mb/s), DVB-ASI	Status Indicators:	PST status LEDs (each per power	Output Connector:	4 PIN XLR
Connector::	Mini DIN 1.0/2.3		supply tray)	Max Power:	120 W
Equalization:	Automatic to 80m @ 3 Gb/s 100m@ 1.5Gb/s	Electrical (48V DC \	(orgion):	Dissipation: Status Indicators:	Green OK LED
	250m @ 270Mb/s (with Belden	Power Supply:	version).	Status Indicators.	Gleen OK LED
	1694A or equivalent)	Configuration:	Dual Terminal Block Inputs		
Return Loss:	> 15dB up to 1.5GHz	ooninguration.	(primary/secondary)		
Cotom E000.	> 10dB up to 3GHz	Voltage:	Auto ranging 36 ↔ 72V DC		
Impedance:	75Ω	Maximum Power:	7 ato 1 ang 1 g 00 0 1 2 1 2 0		
		Consumption:	50W Typical (fully loaded frame with		
Physical:			all accessories)		
Dimensions:	1.8"H x 19"W x 4.16"D		Note: Power consumption		
Module Capacity:	16 Evertz [®] SFP modules.		dependent on SFP type		
Operating Temp:	0-50°C (with 3405FAN installed)	Connectors:	3 pin screw terminal strip		
	0-30° C (with 3405FAN-Q installed)		1 per power supply		

3405CWDM-2-M16 3405CWDM-2-D16

3405FR-DIN	Fiber Optic SFP DIN frame (does not include power supplies, SFPs, or frame controllers)	3405TXX/YY-2	Dual channel SFP optical transmitter with CWDM lasers (1270nm to 1610nm), non-reclocked.
3405FR-DIN-48V	Fiber Optic SFP DIN frame with dual 48V DC inlets (does not include SFP's, frame controllers)	3405T13-R	Single channel SFP optical transmitter with standard 1310nm laser, reclocked.
Note: SFP's sold s	eparately, please specify at the time of ordering.	3405T13-R-S	Single channel SFP optical transmitter with short-haul 1310nm laser, reclocked.
	(Note: Order one of the power supply options from below)	3405TXX-R	Single channel SFP optical transmitter with CWDM laser (1270nm to 1610nm), reclocked.
+Q	3405FAN-Q Dual quiet fan option	3405R-2R	Dual channel SFP optical receiver, reclocked.
+PSX	Single power supply brick	3405R-2	Dual channel SFP optical receiver, non-reclocked.
+PSX-2	Dual (redundant) power supply	3405R-DA4R	Single channel SFP optical receiver, reclocked.
		3405R-DA4R-H	Single channel SFP optical high-sensitivity receiver, reclocked.
Power Supplies		34050013-DA4	Single channel SFP optical regenerator with standard 1310nm laser,
3405PSX	External power supply brick (spare or replacement)		reclocked.
3405PS-6	1RU 6 output power supply tray for 3405FR-DIN (powers up to 6 units - primary & secondary)	34050013-DA4-H	Single channel SFP optical regenerator with standard 1310nm laser and high sensitivity receiver, reclocked.
Accessories		3405OOXX-DA4	Single channel SFP optical regenerator with CWDM laser (1270nm
3405FC	3405 Frame controller		to 1610nm), reclocked.

3405 Frame controller	
Redundant Frame controller	34
Power supply tray	
3405FR-DIN dual FAN module	
3405FR-BNC dual quiet FAN module	Fik
Recessed brackets to provide 5" recessed mounting from front of	34
rack	34
	Redundant Frame controller Power supply tray 3405FR-DIN dual FAN module 3405FR-BNC dual quiet FAN module Recessed brackets to provide 5" recessed mounting from front of

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,

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.

	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.
34050013-DA4	Single channel SFP optical regenerator with standard 1310nm laser,
	reclocked.
34050013-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.
File on Ontile Manu/Day	www.Mashalan (MTD (all O famout ashla installati)
3405CWDM-M8	nux Modules (MTP to LC fanout cable included) 8 Channel Mux. 1470nm to 1610nm
3405CWDM-M8	
3405CWDM-D8 3405CWDM-M16	8 Channel Demux, 1470nm to 1610nm
3405CWDM-M16 3405CWDM-D16	16 Channel Mux, 1270nm to 1610nm
3405CWDM-D16 3405CWDM-2-M8	16 Channel Demux, 1270nm to 1610nm
3405CWDM-2-M8 3405CWDM-2-D8	Dual 8 Channel Mux, 1470nm to 1610nm
	Dual 8 Channel Demux, 1470nm to 1610nm
3405CWDM-2-M16	Dual 16 Channel Mux, 1270nm to 1610nm

Fanout Cables	(snare or	replacement)	

CB-MTP40CM-LCPC-HB MTP to LC/UPC fanout cable for HIGH band CWDM

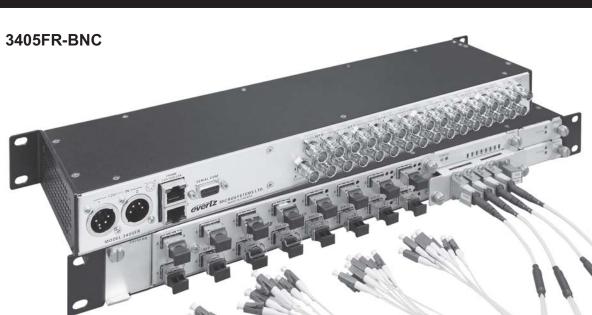
Dual 16 Channel Demux, 1270nm to 1610nm

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

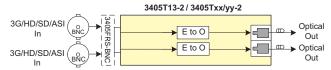
3405FR-BNC

Fiber Optic SFP BNC Frame Pubbl. 2012/04

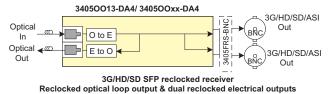




SFP Options



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



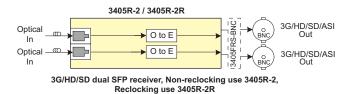
The Evertz[®] 3405FR-BNC SFP frame is the ideal solution for today's low cost, high density fiber optic distribution needs. The 3405FR-BNC provides the flexibility to handle the high-speed requirements of 3G and HDTV as well as SD-SDI, SDTi, and DVB-ASI.

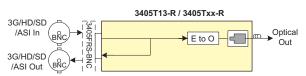
All components are hot swappable through the front of the frame including SFPs, frame controllers, multiplexers, and power converters. This ensures the unit can be fully serviceable in the field without having to be de-cabled or removed from the customer's rack.

The 3405FR-BNC is a 1RU frame designed to house up to 16 Evertz® SFP modules. This provides up to 32 EO or 32 OE in a single rack unit of space. The frame can be configured for a mixture of modules. See SFP options above.

▶ Features & Benefits

- Dual Power supplies (primary and redundant) and conversion trays (front extractable)
- Houses up to 16 front loading Evertz[®] SFP modules
- · Each slot can be used as an input or output based on SFP type
- Dual primary & secondary 3405FC Frame Controllers for full VistaLINK[®] SNMP control and monitoring
- · No electrical re-cabling required when hot swapping SFP modules





3G/HD/SD SFP reclocked transmitter, Reclocked electrical loop output

The 3405FR-BNC can be powered by external power bricks or with the 3405PS-6. The 3405PS-6 can power up to 6 x 3405FR-BNC frames with primary & secondary power.

The 3405FR-BNC is VistaLINK $^{\odot}$ -capable with support for primary and secondary frame controller.

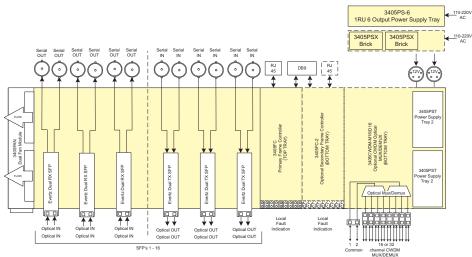
The 3405FR-BNC frame comes with a 3405FAN fan module and 2 x 3405PT power trays. SFPs, frame controllers, power supplies and MUX/DEMUX modules must be ordered separately. Please see ordering information.

- \bullet Power options include external 12V power supply bricks or 1RU power supply tray which will power up to 6 $\,$ x 3405FR-BNC units with redundancy
- Optional bi-directional single or dual Mux/Demux of up to 16 wavelengths in the 1270nm to 1610nm spectrum (ITU-T G.694.2 compliant)
- MTP to LC/UPC fanout cable for convenient fiber connection from Evertz SFPs to Mux/Demux modules



3405FR-BNC Fiber Optic SFP BNC Frame

V



**Note: Optional redundant frame controller (3405FC-2) cannot be used simultaneously with the 3405CWDM-M16/D16 unit

Specifications (NOTE: Electrical input & output specs only apply to reclocking SFP modules(3405T13-R & 3405OO13-DA4)

System: Density:	Up to 32 EO, OE, or mixture of EO and OE in a 1RU unit	Electrical Inputs: Reclocked Standar	(1.5Gb/s)	24M (3 Gb/s), SMPTE SMPTE 259M (270M		Max Power: Dissipation	250 W (primary) 250 W (secondary)
mpedance: Connector:	75Ω BNC per IEC 61169-8 Annex A (F-type connector optional)	Connector:: Equalization:	Automatic	EC 61169-8 Annex A to 80m @ 3 Gb/s 100m@		Status Indicators:	Green OK LED, Red Fault LED
Communication an	d Cantrali		250m @ 2 or equival	270Mb/s (with Belden	1694A	Power: Status Indicators:	4 PIN XLR (12V DC) PSU status LEDs (each per power sup-
Serial:	RS-232 - single Female 9-pin D connector	Return Loss:		to 1.5GHz		ply tray)	FSO status LEDS (each per power sup
thernet:	SNMP over IEEE 802.3/U (10/100 BaseTx) RJ45 connector	Neturi 2033.	> 10dB up			Fuses:	5 amp, time delay- 1 per power supply tray
control:	VistaLINK [®]	Electrical Outputs:					
		Connector:		EC 61169-8 Annex A		Physical:	
ptical Output:		Impedance:	75Ω (nom			Dimensions:	1.8"H x 19"W x 4.16"D
	: Up to 2 per SFP	Signal Level:	800mV (n			Module Capacity:	16 Evertz [®] SFP modules. Dual TX or
onnector:	LC/UPC	DC Offset:	0V +/-0.5			о <i>н</i> т	Dual RX
se/Fall Time:	<270ps	Rise and Fall Time				Operating Temper	
ptical Power:		O	< 900ps (0-50°C (with 3405FAN installed)
Standard: CWDM:	-2dBm +/-1dBm +3.5dBm +/-1dBm	Overshoot: Return Loss:	< 10% of >15dB to				0-30° C (with 3405FAN-Q installed)
avelength:	+3.50DIII +/- IUDIII	Return Loss:	>10dB to			Electrical:	
Standard:	1310nm	Alignment Jitter:		Reclocked) to 1.485Gb	10	Power Supply Con	figuration
CWDM:	1270nm-1610nm	Alighment sitter.		Reclocked) to 2.97Gb/s		Fower Supply Con	Dual external supplies
	ITU-T G.694.2 compliant		< 0.501 (i				(primary/secondary 3405PSX)
	110-1 G.004.2 compliant	3405PSX External	Power Sun	nly Brick:			1RU Power Supply Tray (3405PS-6)
ptical Input:		AC Mains Input:		ing, 100 - 240 VAC, 50)/60 Hz	Voltage:	DC Input 12V DC (external power
umber of Inputs:	Up to 2 per SFP	Number of Outputs				ronago.	supplies required for 110-220V)
onnector:	LC/UPC	Output Voltage:	12VDC			Max Power Consu	
perating Waveler	ngth:	Output Connector:	4 PIN XLF	3			40W (fully loaded frame with all
	1270nm to 1610nm	Max Power					accessories) Note - power consumption
aximum Input Po	wer:	Dissipation:	120 W				dependent on SFP type
Standard:	-1dBm	Status Indicators:	Green Ok	LED			
ptical Sensitivity:						Compliance:	
Standard:	-21dBm at 2.97Gb/s pathological Level A -23dBm at 2.97Gb/s color bars	3405PS-6: AC Mains Input:	Auto rong	ing, 100 - 240 VAC, 50		Safety:	CSA Listed, Complies with EU Safety Directive
		Number of Outputs Output Voltage:			0/00 HZ	EMC:	Complies with FCC part 15, Class A Complies with EU EMC Directives
Ordering Inf	formation	Output Connector:	4 PIN XLF	3			
105FR-BNC	Fiber Optic SFP BNC frame (does not inclu			3405R-2		dual SFP receiver.	
frame controllers, Mux/Demux modules or Mux/Demux fanout cables)		34050013-DA4 3G/HD/SI		D Reclocked SFP transmitter. Reclocked electrical loop output D Reclocked SFP receiver. Reclocked optical loop output and ocked electrical outputs			
rdering Options: Q	3405FAN-Q Dual quiet fan option			Note: xx/yy version		ne following, 27/29, 3	s 1/33, 35/37, 43/45 - Low Band 1/53, 55/57, 59/61 - High Band
	f the power supply options from below						
ower Supplies:						es(MTP to LC fanout	
05PSX	External power supply brick					annel Mux, 1270nm t	
105PS-6	1RU 6 output power supply tray for 3405FF					hannel Demux, 1270	
	(powers up to 6 units - primary & secondary	y)				el Mux, 1270nm to 1	
						el Demux, 1270nm to	
ccessories:	0.405 5			Note: 3405CWDM-	2-M16/D16	requires 2 x CB-MT	
105FC	3405 Frame controller			2405011/214			P40CM-LCPC-LB for full 32ch connectiv
405FC-2	Redundant Frame controller			3405CWDM-	W16/D16 re	equires 1 x CB-MTP4	
405PST	Power supply tray					IXCB-MIP4	OCM-LCPC-LB for full 16ch connectivity

Fanout Cables:

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

CB-MTP40CM-LCPC-LB 1270nm to 1450nm

Power supply tray 3405FR-BNC dual FAN module

3405FR-BNC dual quiet FAN module

3405FAN 3405FAN-Q

3405Txx/yy-2

Evertz SFP modules: 3405T13-2 3



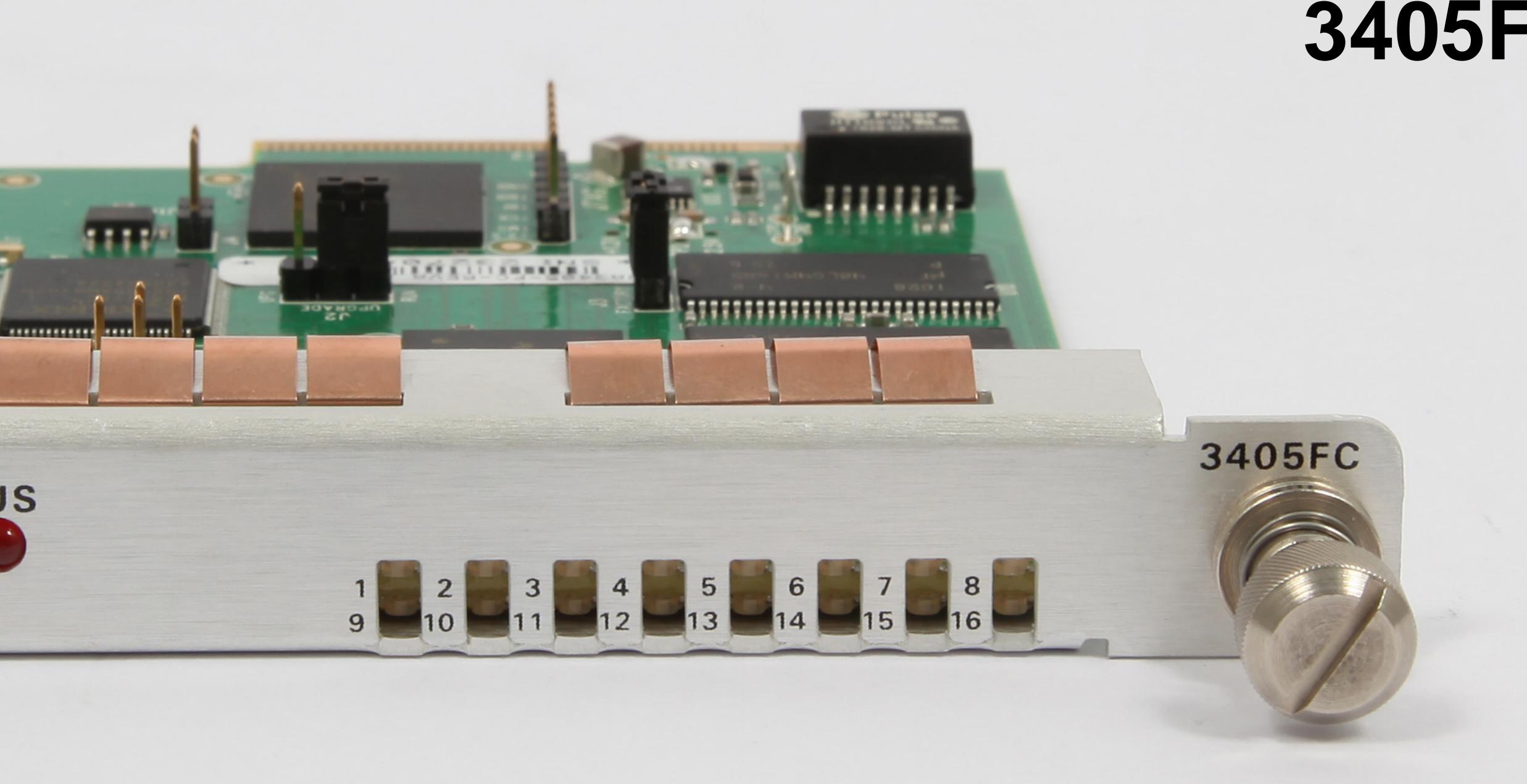
3405FR-PSX



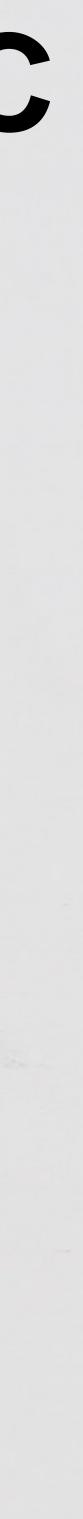


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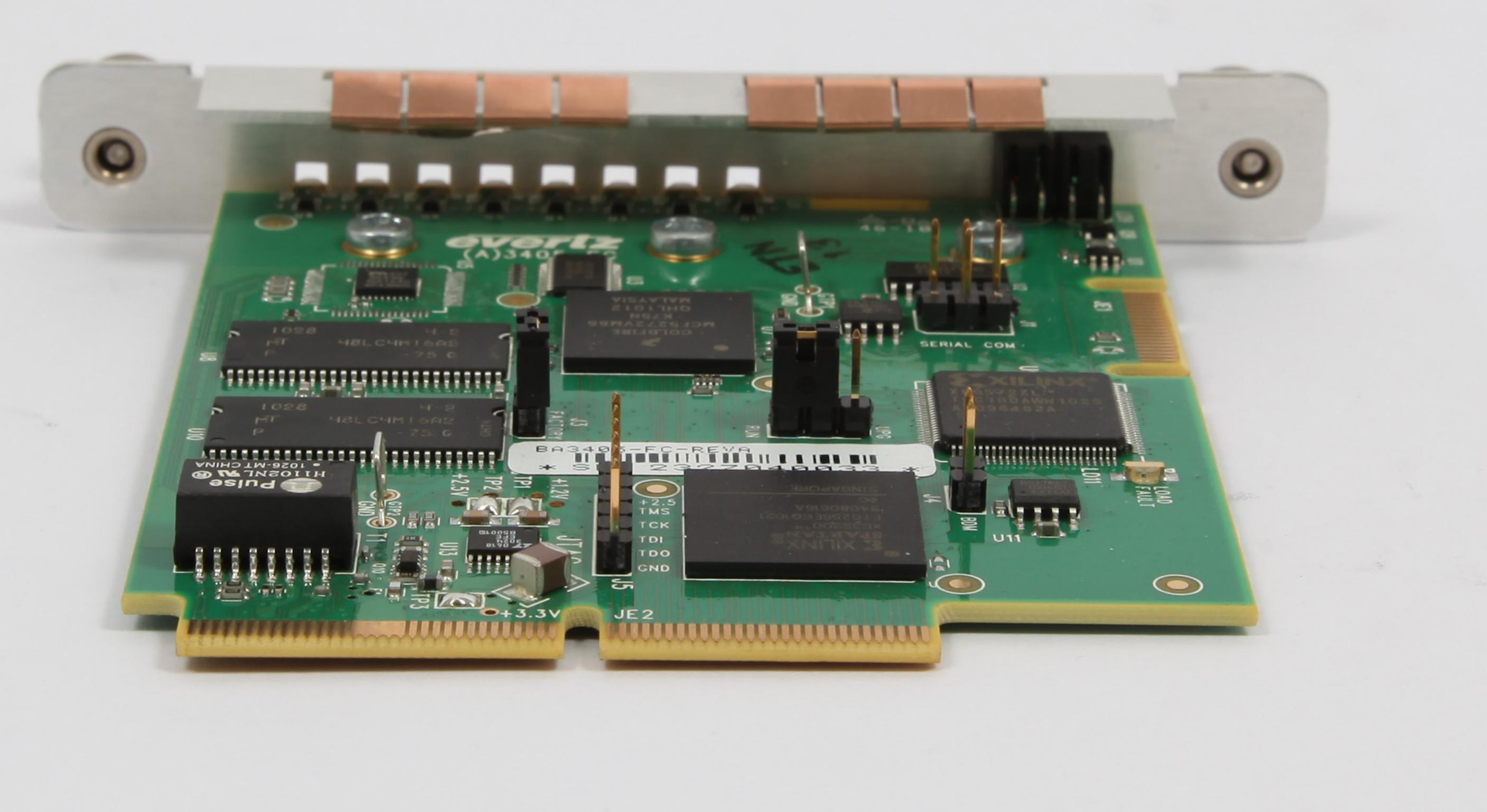


3405FC





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