

3405 Optical SFP Series

3G/HD/SD/ASI EO/OE/OO SFP's

The Evertz 3405 series SFP's are used in the 3405 and 3505 series of mounting frames, and 7708SFP series of card-based SFP carriers. Depending on the model, these SFP's support optical transmit, receive or regenerator functions. Reclocked versions support standard SMPTE rates for 3G/HD/SD/ASI signals, while non-reclocked versions support other rates such as MADI.

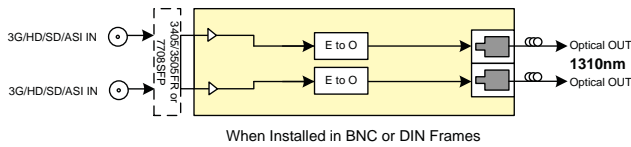
For appropriate mounting frames, please also see the 3405FR and 3505FR series frames, which are available in standalone and rackmount solutions to accommodate two to 64 SFP modules.



Optical Transmitter SFP's

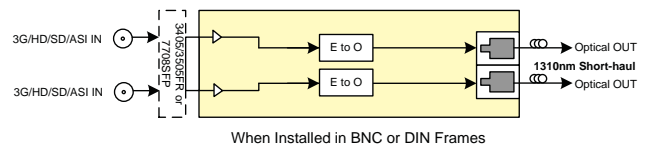
3405T13-2

Dual channel SFP optical transmitter with standard 1310nm lasers. Non-reclocked, with support for 3G, HD, SD and ASI plus other rates such as MADI.



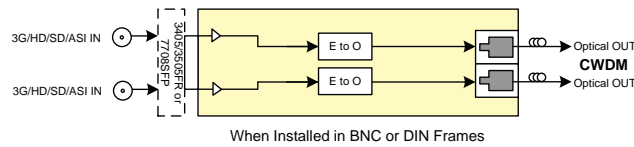
3405T13-2-S

Dual channel SFP optical transmitter with short-haul 1310nm lasers. Non-reclocked, with support for 3G, HD, SD and ASI plus other rates such as MADI. For use in intra-facility and multimode fiber applications.



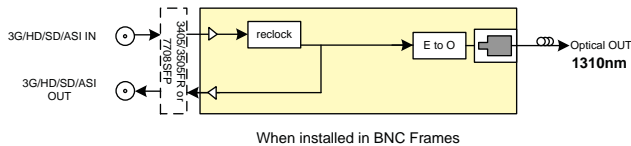
3405TXX/YY-2

Dual channel SFP optical transmitter with short-haul 1310nm lasers. Non-reclocked, with support for 3G, HD, SD and ASI plus other rates such as MADI. For use in intra-facility and multimode fiber applications.



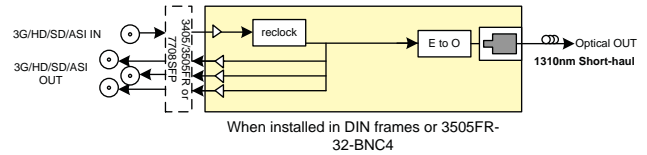
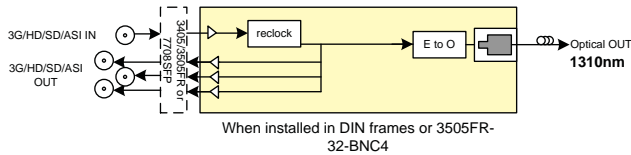
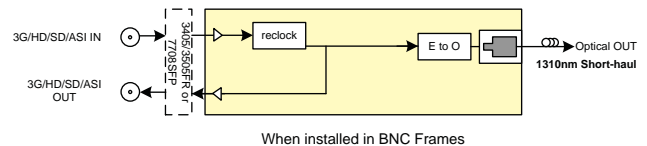
3405T13-R

Single channel SFP optical transmitter with standard 1310nm laser. Reclocked with support for 3G, HD, SD and ASI. Single electrical loop-out when installed in a BNC frame, triple electrical loop-out when installed in a frame with DIN 1.0/2.3 connectors.



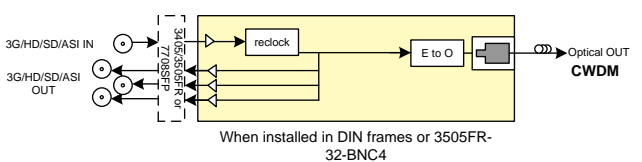
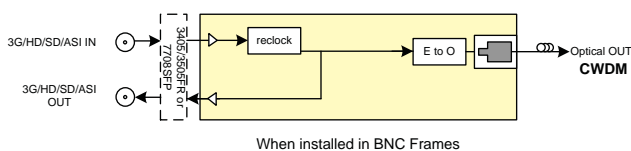
3405T13-R-S

Single channel SFP optical transmitter with short-haul 1310nm laser. Reclocked with support for 3G, HD, SD and ASI. Single electrical loop-out when installed in a BNC frame, triple electrical loop-out when installed in a frame with DIN 1.0/2.3 connectors. For use in intra-facility and multimode fiber applications.



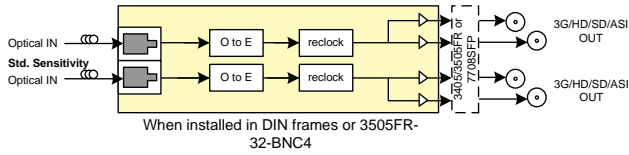
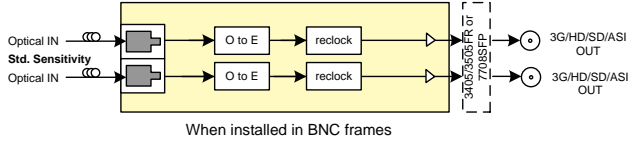
3405TXX-R

Single channel SFP optical transmitter with CWDM laser, available in 16 G.694.2-compliant wavelengths from 1270nm to 1610nm. Reclocked with support for 3G, HD, SD and ASI. Single electrical loop-out when installed in a BNC frame, triple electrical loop-out when installed in a frame with DIN 1.0/2.3 connectors.



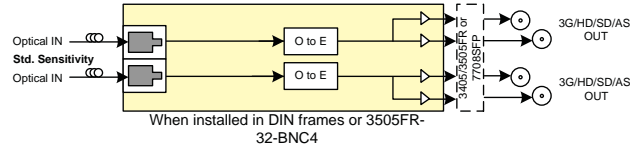
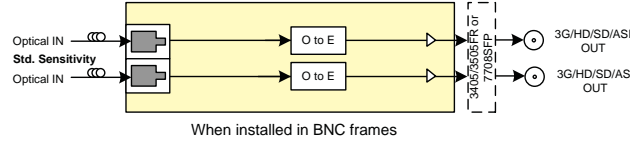
3405R-2R

Dual channel SFP optical receiver. Reclocked with support for 3G, HD, SD and ASI. Single electrical output per optical input when installed in a BNC frame, dual electrical output per optical input when installed in a frame with DIN 1.0/2.3 connectors.



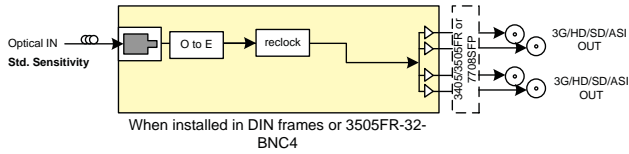
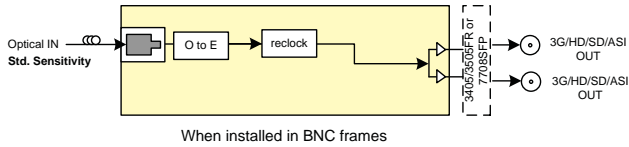
3405R-2

Dual channel SFP optical receiver. Non-reclocked, with support for 3G, HD, SD and ASI plus other rates such as MADI. Single electrical output per optical input when installed in a BNC frame, dual electrical output per optical input when installed in a frame with DIN 1.0/2.3 connectors.



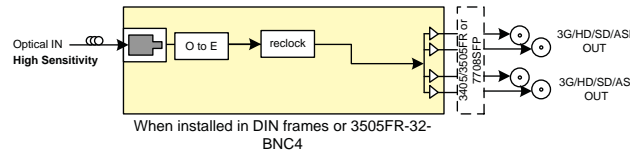
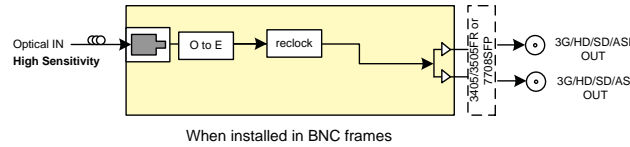
3405R-DA4R

Single channel SFP optical receiver. Reclocked with support for 3G, HD, SD and ASI. Dual electrical output when installed in a BNC frame, quad electrical output when installed in a frame with DIN 1.0/2.3 connectors.



3405R-DA4R-H

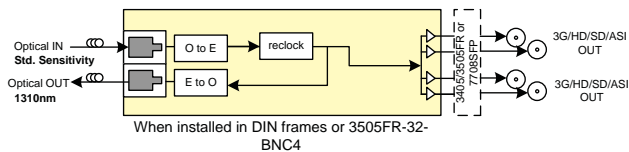
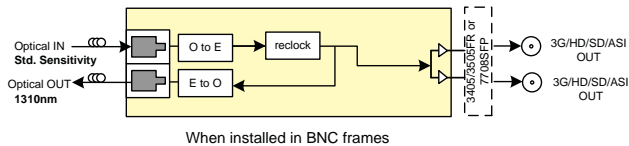
Single channel SFP optical high-sensitivity receiver. Reclocked with support for 3G, HD, SD and ASI. Dual electrical output when installed in a BNC frame, quad electrical output when installed in a frame with DIN 1.0/2.3 connectors.



►Optical Regenerator/Wavelength Shifter SFP's

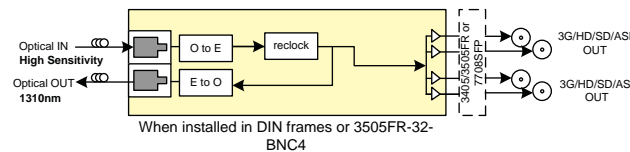
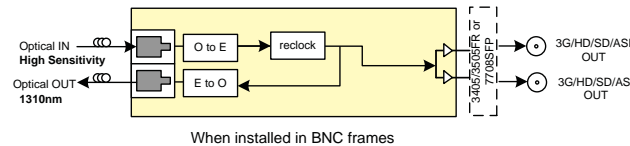
3405OO13-DA4

Single channel SFP optical regenerator with standard 1310nm laser. Reclocked optical and electrical outputs with support for 3G, HD, SD and ASI. Dual electrical output when installed in a BNC frame, quad electrical output when installed in a frame with DIN 1.0/2.3 connectors.



3405OO13-DA4-H

Single channel SFP optical regenerator with standard 1310nm laser and high sensitivity receiver. Reclocked optical and electrical outputs with support for 3G, HD, SD and ASI. Dual electrical output when installed in a BNC frame, quad electrical output when installed in a frame with DIN 1.0/2.3 connectors.

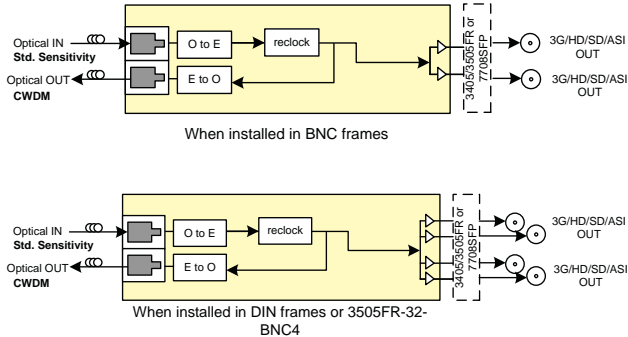


3405 Optical SFP Series

3G/HD/SD/ASI EO/OE/OO SFP's

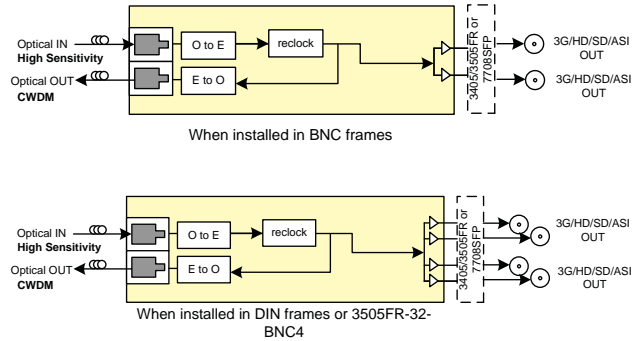
3405OOXX-DA4

Single channel SFP optical regenerator with standard 1310nm laser and high sensitivity receiver. Reclocked optical and electrical outputs with support for 3G, HD, SD and ASI. Dual electrical output when installed in a BNC frame, quad electrical output when installed in a frame with DIN 1.0/2.3 connectors.



3405OOXX-DA4-H

Single channel SFP optical regenerator with high sensitivity receiver and CWDM laser, available in 16 G.694.2-compliant wavelengths from 1270nm to 1610nm. Reclocked optical and electrical outputs with support for 3G, HD, SD and ASI. Dual electrical output when installed in a BNC frame, quad electrical output when installed in a frame with DIN 1.0/2.3 connectors.



Specifications

Optical Output:		Optical Sensitivity:	Electrical Outputs:
Number of Outputs:	Up to 2 per SFP	Standard:	Connector:
Connector:	Up to LC/UPC		BNC or DIN 1.0/2.3, depending on model of 3405/3505 frame
Fiber:	Compatible with Singlemode or 50/62.5um Multimode	High Sensitivity:	Impedance:
			75Ω (nominal)
Optical Power:			Signal Level:
Standard 1310nm:	-2dBm +/-1dBm	Electrical Inputs:	800mV (nominal)
-S (Short haul 1310nm):	-7dBm +/-1dBm	Reclocked Standards:	DC Offset:
		SMPTE 424M (3 Gb/s), SMPTE 292M, (1.5Gb/s), SMPTE 259M (270Mb/s), DVB-ASI	0V +/-0.5V
CWDM:	+4dBm +/-1.5dBm		Rise and Fall Time (Reclocked SFP's only):
Wavelength:		Connector:	HD/3G:
Standard & -S:	1310nm	BNC or DIN 1.0/2.3, depending on model of 3405/3505 frame	<135ps
CWDM:	1270nm-1610nm, ITU-T G.694.2 compliant	Impedance:	SD:
		75Ω (nominal)	< 900ps
Optical Input:		Equalization:	Overshoot (Reclocked SFP's only):
Number of Inputs:	Up to 2 per SFP	Automatic to 80m @ 3 Gb/s, 100m@1.5Gb/s, 250m @ 270Mb/s (with Belden1694A or equivalent cable)	< 10% of amplitude
Connector:	LC/UPC	Return Loss:	Return Loss:
Fiber:	Compatible with Singlemode or 50/62.5um Multimode	> 15dB up to 1.5GHz, > 10dB up to 3GHz	>15dB to 1.5GHz, >10dB to 3GHz
Operating Wavelength:	1270nm to 1610nm		Alignment Jitter (Reclocked SFP's only):
Maximum Input Power:			< 0.2UI to 1.485Gb/s
Standard:	-1dBm		< 0.3UI to 2.97Gb/s
High Sensitivity:	-7dBm		
			Physical:
			SFP Form-factor
			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
			Complies with EU EMC Directives

Ordering Information

*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.

Enclosures

Please see the appropriate catalogue pages for details on the enclosure options listed.

3405FRM-BNC	Miniature SFP frame, single SFP capacity, BNC connectors.
3405FRM-DIN	Miniature SFP frame, single SFP capacity, DIN 1.0/2.3 connectors.
3405FRS-BNC	Standalone SFP frame, with SNMP monitoring and control, quad SFP capacity, BNC connectors.
3405FR-BNC	1RU SFP frame, optional SNMP monitoring and control, 16 SFP capacity, BNC connectors.
3405FR-DIN	1RU SFP frame, optional SNMP monitoring and control, 16 SFP capacity, DIN 1.0/2.3 connectors.
3405FR-XLINK	1RU SFP frame, optional SNMP monitoring and control, 16 SFP capacity, XLINK connector.
3505FR-32-BNC4	2RU SFP frame, optional SNMP monitoring and control, 32 SFP capacity, BNC connectors.
3505FR-64-BNC2	2RU SFP frame, optional SNMP monitoring and control, 64 SFP capacity, BNC connectors.
3505FR-DIN	2RU SFP frame, optional SNMP monitoring and control, 64 SFP capacity, DIN 1.0/2.3 connectors.
3505FR-XLINK	2RU SFP frame, optional SNMP monitoring and control, 64 SFP capacity, XLINK connectors.
7708SFP	Card based SFP carrier for 7700/7800FR series frames, one SFP capacity, BNC connectors.
7708SFP-2	Card based SFP carrier for 7700/7800FR series frames, dual SFP capacity, BNC connectors.
7708SFP-2-DIN	Card based SFP carrier for 7700/7800FR series frames, dual SFP capacity, DIN 1.0/2.3 connectors.
7708SFP-4-DIN-A	Card based SFP carrier for 7700/7800FR series frames, quad SFP capacity, DIN 1.0/2.3 connectors.

Accessories

J/LC/LC/ATTEN-5dB	5dB optical attenuator, required for multimode applications when standard 1310nm SFP's are used
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