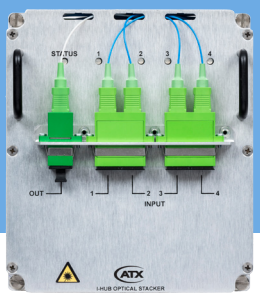
I-HUB



Opto-Stacker Modules:

Applications:

ATX's opto-stacker modules have been deployed for numerous applications to transport return signals to the headend.

- Node segmentation
- Distribution networks
- RFoG applications
- FTTx networks

Features:

- Five compact modules in a single I-HUB chassis
- Quadruples return path bandwidth
- SNMP remote monitoring
- -40°C to +65°C operating temperature
- Wide input optical range of 1270-1620nm
- Auto adjusts for optical input over a 15 dB range

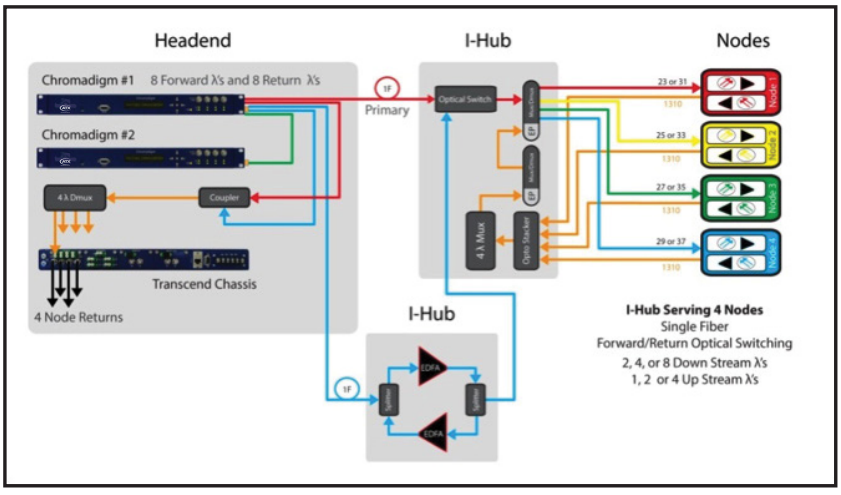
Key Benefits:

- Ideal for networks with limited available optical fibers
- Handles any optical input from 1270-1620nm making it insensitive to existing node returns
- Frequency stacking between 1 GHz & 2 GHz for second order, free performance
- Up to 60 km transmission without EDFAs
- Capable of bringing back 40 ITU channels or 160 streams on a single fiber, making it ideal for RFoG
- A fully segmented node's four 5-85 MHz returns can be transported back to the headend on the same downstream fiber
- Can operate without a dedicated DWDM Mux/DMux

ATX's IHUB-OPSTKM-XX-C opto-stacker is a high density, high performance frequency stacker for return path applications which enables quadrupling of return path bandwidth. Four optical return signals (1270-1620nm) are frequency stacked onto a single 1550nm ITU channel at the I-HUB & transported back to the headend where it is destacked into the original 5-42/85 MHz return path RF streams.

Opto-Stacker Module (front view)

Block Diagram



Opto-Stacker Modules:

Opto-Stacker Module Specifications

SPECIFICATIONS		IHUB-OPSTKM-**-*	IHUB-OPSTKM1-**-*	IHUB-OPSTKM2-**-*
LINK PERFORMANCE				
NPR/DYNAMIC RANGE	5-42 MHz(1)	40/15 dB		
	5-85 MHz(1)	40/10 dB		
	5-200 MHz			
CAPACITY	5-42/85 MHz	4 Return Segments		
	5-204 MHz	2 Return Segments		
STABILITY				
OPTICAL INPUT				
BANDWIDTH(2)		1270-1620nm		
INPUT POWER	MINIMUM	-10 dBm	-15 dBm	-22 dBm
	TYPICAL	-3 dBm	-6 dBm	-18 dBm
	MAXIMUM	+3 dBm	0 dBm	-14 dBm
NOISE FIGURE				
CHANNEL GAIN ADJUSTMENT		0 to +30 dB		
OPTICAL OUTPUT POWER	MINIMUM	+7.5 dBm		
	TYPICAL	+8 dBm		
	MAXIMUM	+8.5 dBm		
WAVELENGTH		ITU Channel 53 to 23 on 200 GHz Grid		
OUTPUT POWER VARIATION OVER TEMPERATURE		± 0.2 dB		
CONNECTOR TYPE WITHOUT EXPRESS PORT OPTION		SC/APC		
EXPRESS PORT OPTION				
AVAILABILITY		Optional		
CONNECTOR TYPE ON INPUT & EXPRESS PORTS		LC/APC		
OPTICAL BANDWIDTH		1545-1562nm		
REFLECT BAND		1300-1620nm		
INSERTION LOSS		< 0.6 dB		
NETWORK MANAGEMENT		SNMP V4		
POWERING				
POWER CONSUMPTION		18W		
ENVIRONMENTAL				
OPERATING TEMPERATURE		-40ºC to +65ºC (-40ºF to +149ºF)		
STORAGE TEMPERATURE		-40ºC to +85ºC (-40ºF to +185ºF)		
HUMIDITY		Max. 85% Non-condensing		
PHYSICAL				
DIMENSIONS		5.77”H x 5.03”W x 2.07”D (14.66H x 12.78W x 5.26D cm)		
WEIGHT		2.0 lbs (0.91 kg)		

NOTES:

(1) Total link performance measured from RF input to Opto-stacker to RF output of TSH-REM-RX4-C TranScend Destacker over 15 dB optical link with 25 km fiber with pseudo-random noise loading.

(2) Without express port option.

Specifications subject to change without notice.

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