

1) Wave-Shaper X2

Optical Ports	Port Configuration	1x1
Filter Control	Operating Frequency Range	191.1 THz to 196.46 THz (1526.0 nm to 1568.7 nm)
	Filter Bandwidth	10 GHz – 5.36 THz (0.08 – 42.7 nm)
	Filter Shape	Arbitrary
	Frequency Setting Resolution	±1 GHz (±8 pm)
	Frequency Setting Accuracy	±2.5 GHz (±20 pm)
	Bandwidth Setting Resolution	±1 GHz (±8 pm)
	Bandwidth Setting Accuracy	±5 GHz (±40 pm)
	Bandwidth Setting Repeatability	±2.5 GHz (±20 pm)
	Group Delay Control Range	-25 ps to +25 ps
	Attenuation Control Range	0 to 35 dB
	Attenuation Setting Resolution	0.01 dB
	Attenuation Setting Accuracy	±1.0 dB from 0 to 10 dB, ±10 % from 10 to 30 dB
	Settling Time	<500 ms
	Loss and Dispersion	Insertion Loss
Insertion Loss Non-Uniformity		0.7 dB
Polarization Dependent Loss (PDL)		0.4 dB
Differential Group Delay (DGD)		< 0.5 ps
Return Loss		>25 dB
Optical Power		Max Total Input Optical Power
	Max Optical Power per 50 GHz channel	+13 dBm
	Operating temperature	Bench-top: 15 to 35°C
Electrical	Communications Interface	Ethernet (GbE), USB 2.0
Mechanical	Connector Interface	FC/APC
Software	Necessary software to control the Programmable Optical Processor should be provided with the system	
Typical Applications	Should be possible to generate required filter shape with both amplitude and phase. Should Support arbitrary user-generated channel and filter shapes	
Warranty	3 years	