

# SX-E

1GHz Optical node, 1 active outputs up to 2 with passive splitting

FORWARD PARAMETERS	
Wavelength	1260 - 1620 nm
Bandwidth	85...258 - 1003 MHz
Optical input power range	- 9.9 - 2 dBm
Optical AGC range	- 7 to + 2dBm
Flatness <sup>1</sup>	± 0.75 dB
Equivalent Input Noise Current <sup>2</sup>	5 pA / √Hz
Output level: <sup>3</sup>	
CTB ≤ -60 dBc	2 x 112 dBμV
CSO ≤ -60 dBc	2 x 114 dB μV
Umax <sup>4</sup>	2 x 112 dB μV
Gain limited output level <sup>5</sup>	2 x 112 dB μV
Number of outputs	1 active, up to 2 with passive splitting
RETURN PARAMETERS	
Bandwidth	5 - 65 ... 204 MHz
Flatness <sup>6</sup>	±0.75 dB
Optical output power <sup>7</sup>	3 or 6 dBm± 0.5 dB
Min RF input level to get 10% OMI <sup>8</sup>	70 dB μV
NPR / Dynamic range <sup>9</sup>	40 dB / 5 dB
OTHERS	
Return loss <sup>10</sup>	> 16 dB
AC voltage range: remote powering	35 - 90 V AC
AC voltage range: mains powering	100 - 250 V AC
Max. current for RF / AC IN ports	10 / 15 A
Power consumption <sup>11</sup>	< 18 W
Operation temperature range	- 40 - 65 °C
Optical connectors	SC / APC
RF connectors	4 x PG11
Protection class	IP 67
Dimensions (W x L x H)	210 x 200 x 80 mm
Weight	< 2.2 kg
AVAILABLE VERSIONS	
SX-E-1R1T-2	Dual way power; max. config: 1Rx x 1Tx
SX-E-1R1T-1	Single way power; max. config: 1Rx x 1Tx

1. In range 85 - 600 MHz; ± 0.75 dB in range 600 - 1006 MHz;  
 2. Typical value; the worst case 6 pA / √Hz  
 3. According to EN 50083-3, 9 dB slope between 85 to 862 MHz, 42 channels CENELEC, typ. value  
 4. Full digital load 258 - 1218 MHz, 110 channels QAM 256, 12 dB slope  
 5. 3.25% OMI, 0dBm optical input level, 1310 nm  
 6. Up to 85 MHz; ± 0.75 dB up to 204 MHz  
 7. For CWDM lasers, up to 16 wavelengths are available in 3 dBm version and 8 wavelengths are available in 6 dB version  
 8. With AT3, AT4, AT5, AT6 =0dB regardless of US configuration  
 9. Measured with 12 dB link (15 km fiber + loss),  
 60 MHz BW noise load, EINC 7pA / √Hz  
 10. In 5 - 65 MHz; 18 dB for f < 40 MHz; 18 dB -1.5 dB / oct for f > 40 MHz, but > 11 dB  
 11. 60 V AC; Configuration: 2 x FWD Rx, 1 x 3 dBm CWDM lasers

Unless otherwise specified, the whole specifications are tested with 65 / 85 diplex filters installed; at room temperature 25°C and present typical values.

**Note:** Specifications are subject to change without notice.



- Can be set up for 862 MHz or 1 GHz performance
- Selectable single or dual outputs with an onboard signal director
- LED display for optical input power
- AGC optical input range of -7 to +2 dBm
- Standard plug-in attenuators can be used to adjust the gain and equalization
- Both FP and DFB transmitters available
- Surge-resistant circuitry ensures resistance to high voltage transients (6kV)
- Thermal RF control minimizes gain movement over temperature
- 10 A current capacity (steady state) and 15 A surge survivability
- Outdoor housing is IP67 dustproof and watertight
- Strand and pedestal mount housing configurations are available
- All ports are PG11 or 5/8'' with included adapter

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## Block Diagrams

