



BENCHTOP OPTICAL SIGNAL NOISE RATIO GENERATOR

Features

- Compact turnkey OSNR generator
- Remote control capability
- Easy to use

Applications

- BER (Bit Error Rate) Testing
- Eye Diagram Quality Testing
- DWDM Network Testing

Product Description

The Optical Signal Noise Ratio (OSNR) Generator comes with a built-in Amplified Spontaneous Emission (ASE) source, Erbium Doped Fiber Amplifier (EDFA), Tunable Filter and multiple Optical Variable Attenuators. The optical block design combined with a simple front panel display allows the customer to emulate optical noise impairments on Dense Wavelength Division Multiplexing (DWDM) Networks under test to validate OSNR, Bit Error Rate (BER) and Eye diagram Quality.

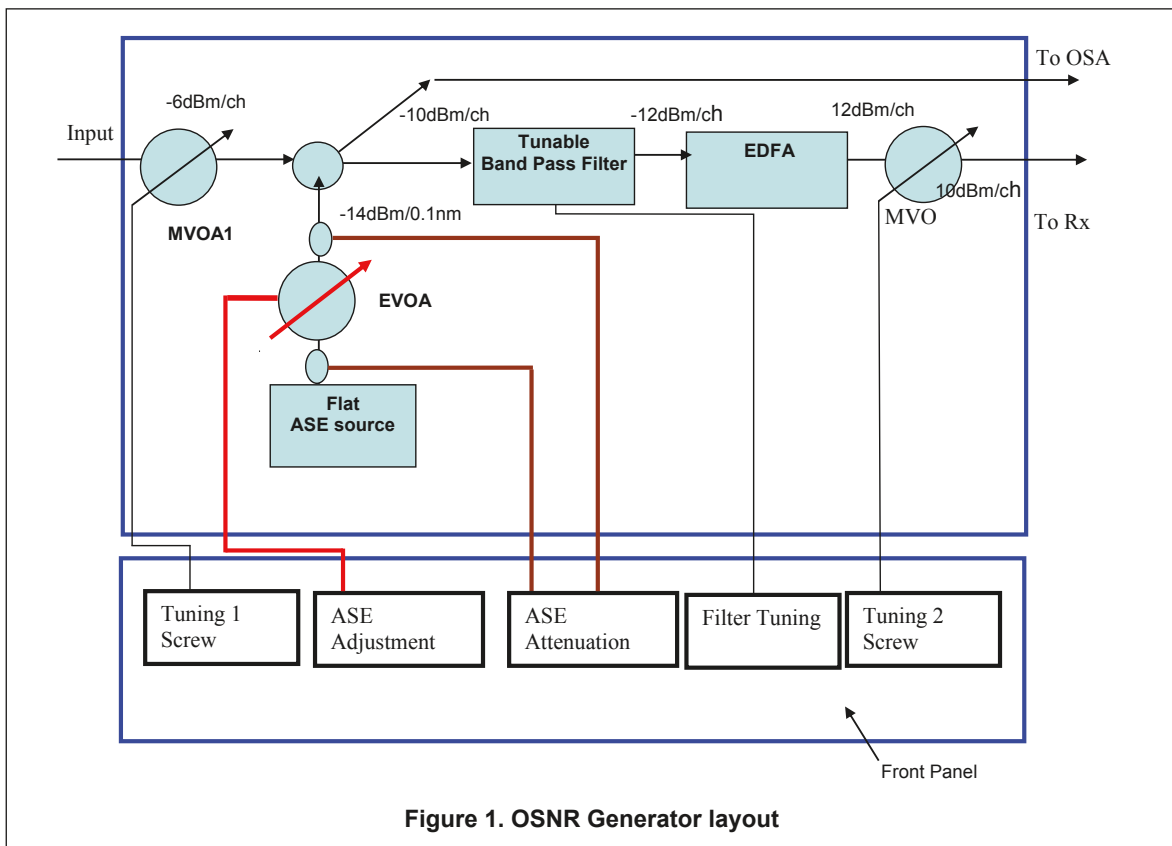


Figure 1. OSNR Generator layout

Generic Product Specification

OSNR min (dB)	>8
ASE Source	
Wavelength (nm)	1527–1561.5
Flatness (dB)	<1
Power (Max) (dBm/0.1nm)	>-17
Attenuation Dynamic Range (dB)	1.0–33.9
Tunable Band Pass Filter	
Tuning Range (nm)	1527.994–1563.047
Channel Setting Error (nm)	0.032
Channel Repeatability (nm)	0.01
Passband Width (GHz) @ 0.5 dB	>30
Passband Width (GHz) @ 3 dB	50 (typical)
Band Width (GHz) @ 25 dB	<150
Passband Ripple (GHz) (over ITU ± 10 GHz)	<0.5
PDL (dB) (over ITU ± 10 GHz)	<0.4
Adjacent Channel Isolation (over ITU ± 10 GHz) (dB)	>25
Non-Adjacent Channel Isolation (dB)	>35
Insertion Loss (dB) (over ITU ± 10 GHz)	<2.7
Wavelength Temperature Dependence (pm/°C)	± 1 (typical)
Polarization Mode Dispersion (ps)	0.5
Return Loss (dB)	>40
MVOA	
Resolution (dB)	≤0.1
Excess Insertion Loss (dB)	≤0.6
Attenuation Dynamic Range (dB)	0.6–33
EDFA	
Gain (dB)	24
Output Power (dBm)	13
Noise Figure	<5
Electrical	
Power (W)	18
Voltage (V)	110–220
Mechanical Dimension (mm)	230.4 × 89 × 300
Weight (lb)	5

Ordering Information For Standard Part

OSNR-1000-33-1528:1563-9/125-S