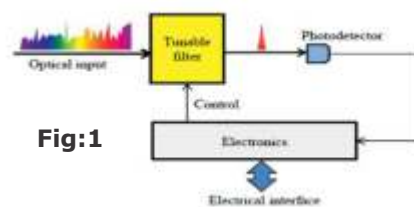




- S, C and C+L Band Wavelength Ranges
- High wavelength repeatability
- Excellent wavelength accuracy: +/- 0.3 nm
- No mechanical wear-outs
- Channel Power Measurement
- Channel Threshold Detection
- Multiple traces viewed simultaneously
- User-friendly GUI for Measurement and Analysis

Optical Spectrum Analyzer consists of a narrow-band tunable optical filter, a photo-detector and low noise, highdynamic range electronics, as schematically shown in Fig 1.

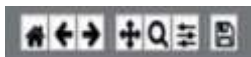
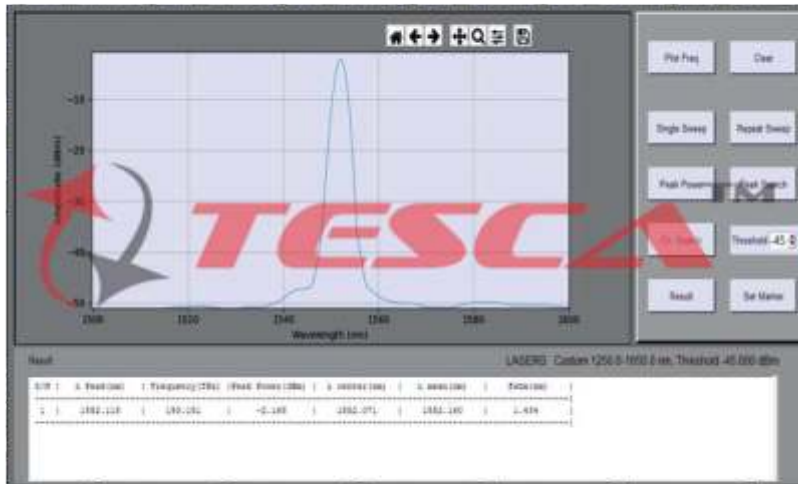
When a wide band spectrum is incident to the tunable filter, it allows a narrow band out of input light centred at a given wavelength to pass through the filter.



By altering the central wavelength of pass band of the tunable filter, the whole input spectrum can be scanned at highspeed and spectrum information of incident signal is detected sequentially. The photo detector converts the light passing through the filter into electrical current. The data processing unit process the data and then outputs the processed spectrum to the computer for further data analysis and measurements .

Note: Specifications are subject to change.

Software application



Easy to use zooming capabilities and Quick translation of the signal trace

3 Modes for Analysis

- LASERS** : To characterize a DFB Laser source for λ (central, peak, mean), Peak Power, Frequency and FWHM
CWDM : To Analyse CWDM Channels. Displays the Channel No. based on ITU Standards
EDFA : To Analyze an EDFA System

- Sweep Band Selection in Custom Mode or ITU Band
- Displays the Plot in Frequency or Wavelength
- Save the graph in JPEG format
- Save the scanned data in excel format
- Save the extracted Results.
- Load Data to Software
- Compare multiple graphs with different colour codes.

Software application



- Plot Freq** Plots the Wavelength or Frequency v/s Amplitude Trace
- Clear** Clears all previous Data.
- Single Sweep** Scans for the Wavelength or Frequency once
- Repeat Sweep** Scans for the Wavelength or Frequency repeatedly every 1 sec.
- Peak Power** Measures the Peak Power in dB
- Peak Search** Displays the parameters of the selected wavelength with highest peak

Note: Specifications are subject to change.

Result of E Displays all the results, above the set threshold value in the Result window

Two Marker Two set of Markers to measure the $(\lambda, \Delta\lambda)$, power and Δ power.

Ch Search Identify the CWDM Channel No (as per ITU Standards),

Result Displays all results

Specifications

PARAMETERS	UNIT	SPECIFICATION
Operating wavelength range	nm	1250 ~ 1650(CWDM)
Input power range	dBm	-50 ~ +15
Max input power d	Bm	30
Wavelength resolution (FWHM)	nm	2.5
Absolute wavelength accuracy	nm	± 0.3
Wavelength linearity	nm	0.05
Wavelength repeatability	nm	± 0.1
Absolute power accuracy	dB	± 0.8
Relative power accuracy	dB	± 0.6
Power repeatability	dB	± 0.1
PDL		dB 0.5
Noise floor	dBm	-55
Optical rejection ratio(at 20 nmoffset)	dB	> 40
Optical return loss	dB	> 40
Response time	s	> 1
Power consumption	W	< 2.0
Electrical interface		USB

Measurements

- Peak Power
- Peak Search
- Identify the CWDM Channel No (as per ITU Standards)
- Peak Wavelength in nm
- Central Wavelength in nm
- Mean Wavelength in nm
- Power in dB

Deliverables

- FOL-OSA: Optical Spectrum analyzer
- USB Cable
- Optical Measurement and Analysis Software
- Operating Manual

Note: Specifications are subject to change.

