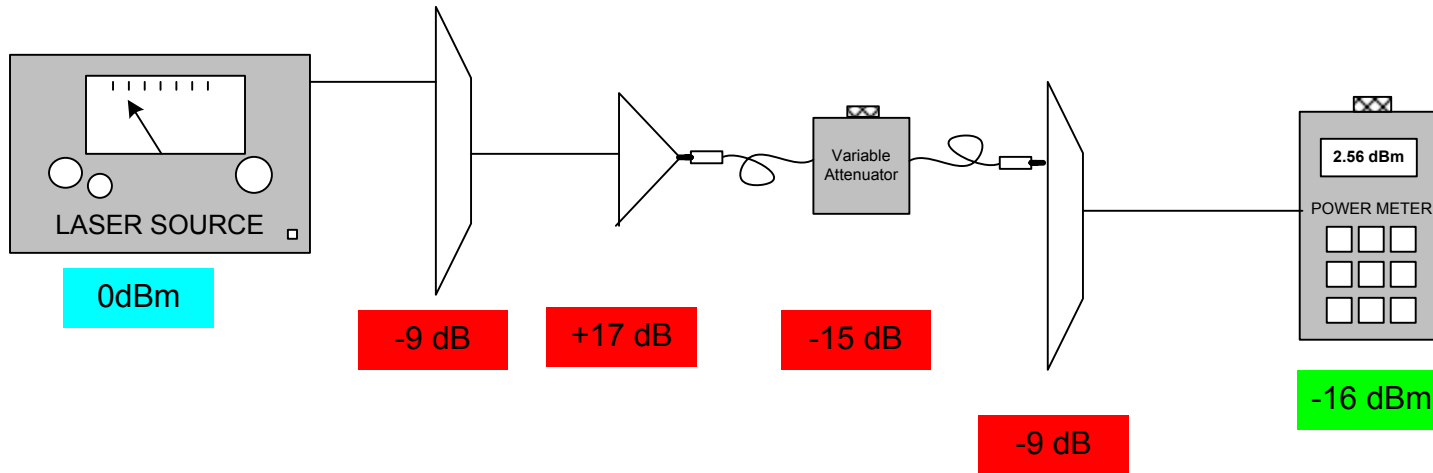
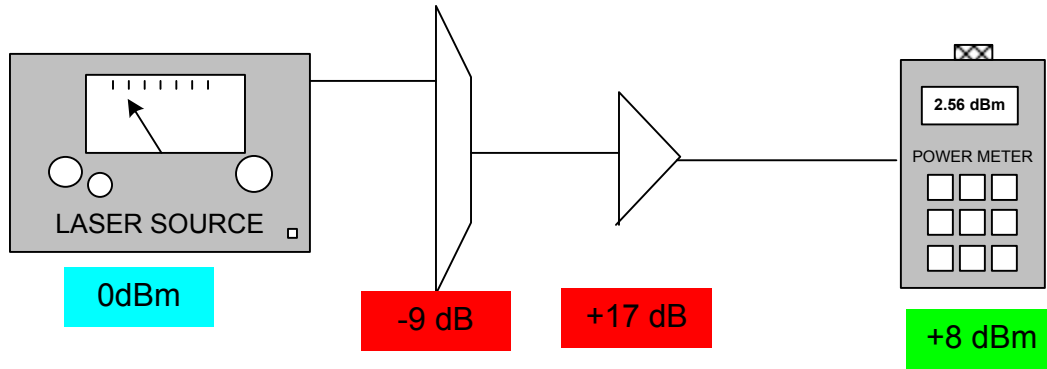
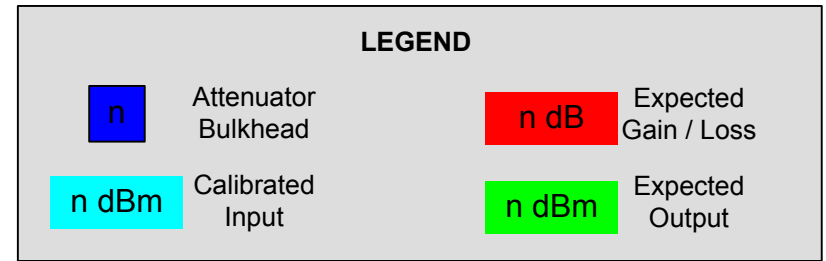
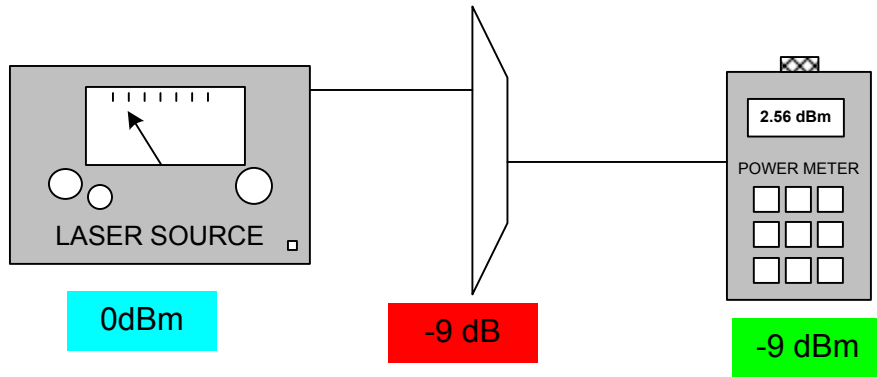


# Optical Attenuation Test



MUX

## Some Important Optical Specs

| Device      | Sensitivity dBm | Overload dBm | Damage dBm | Output dBm |
|-------------|-----------------|--------------|------------|------------|
| NE MRTRD    | -20             | -3           | -1         | -0         |
| LX SFP GBIC | -3 to -19       |              |            | -3 to -9.5 |
| 1EC28 EDFA  |                 | -6           |            | 17         |

| Device       | Loss dB     |
|--------------|-------------|
| NE Mux/Demux | -3 per side |
| MARS Cable   | -15         |

### Optical Attenuation Test

Purpose of Test:

To determine the real optical gains/losses of the optical network equipment used in the design

Mux Loss: Laser source is tuned and connected to wavelength of mux input port. Output power is measured and recorded. Test is repeated for all wavelengths of mux tuning laser to proper frequency.

EDFA Gain: EDFA is added to above setup and power measured. Output power is recorded. Test is repeated for all wavelengths of mux

End to End Test: VOA at 15 db and DeMux is added to above setup. Output power is recorded for each deMux wavelength tuning laser as appropriate.