OPTICAL TILT EQUALIZER
OTE1000

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Product Data Sheet. Rev. 2.0

THE PRODUCT

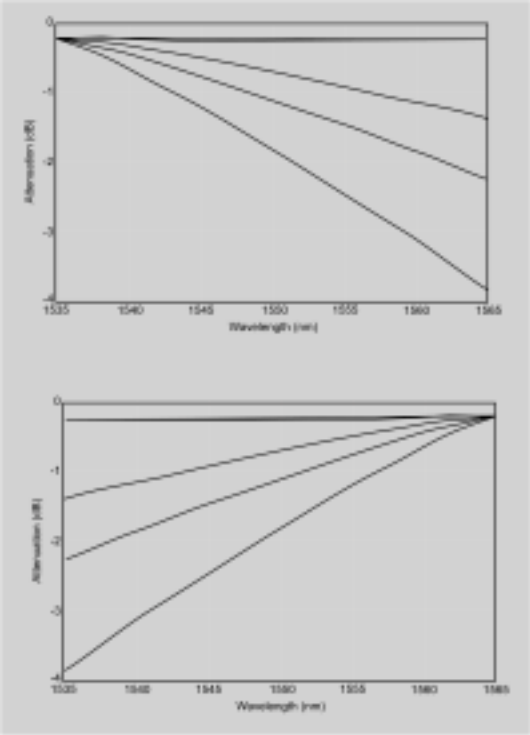
Optellios' Optical Tilt Equalizer Series OTE1000 are tunable, low loss spectral equalizers for WDM applications.

These rugged devices allow the restoration of equality to non-uniform optical power across WDM channels, using Optellios' patent pending technology.

The small footprint of these devices allows an easy mounting onto a circuit board. Low control voltage and ultra-low power consumption permit design flexibility in demanding applications.

OTE1000C is optimized for C-band operation, but other models are available for the S and L bands. All have the same high level of performance.

The OTE1000 Series is available with a range of optical connectors as standard options. Optellios can also provide the device in non-standard configurations, please contact us directly to discuss your individual requirements.



Measurement of the attenuation profile of an optical tilt equalizer with ~30 nm operating range

MAIN FEATURES

- Ultra-low power consumption
- Small footprint
- Operation over S, C, or L band
- Large dynamic range
- Low PDL
- Small size
- Low insertion loss
- Rugged design
- Flexible interface design

The information contained in this publication is for guidance only. Optellios Inc. reserves the right to alter this information at any time, without prior notice.

TECHNICAL SPECIFICATIONS

PERFORMANCE DATA

Parameter	Value	Comment
Waveband	C, S, or L	
Insertion Loss	<1.3 dB	Excluding connector or fusion splice loss
Slope Linearity	<0.5 dB	Maximum deviation of attenuation from ideal optical tilt
Dynamic Range	0-8 dB	Within 0.5 dB linearity
Return Loss	>50 dB	Measured from input side
PDL	<0.1 dB	
PMD	<0.1 ps	
Power Consumption	<1 mW	Lowest compared to all other technologies commercially available
Max. Optical Power	25 dBm	Tested under 26 dBm optical power for 30 min.
Dimensions	44 x 19 x 10 mm	Excluding strain relief boots and base mounting plate
Operating Temp.	0 to +65 ºC	Meets all the above specifications within this temperature range
Storage Temp.	-40 to +85 ºC	Not recommended for operation unless reduced performance acceptable

POWER REQUIREMENTS

Tilt equalizer operation requires, in general, simultaneous application of three (3) independent a.c. control signals. Limited operation is possible with only two (2) control signals, but in such cases it is necessary for one signal to be applied simultaneously to two inputs. No d.c. bias voltage should be applied to the signal inputs of the device at any time.

Following is a summary control signal requirements:

Parameter	Value
Signal Channel Count	3
Signal Waveform	Square or Sine
Frequency	1 kHz (recommended)
Amplitude	1-5V
Maximum Amplitude	10V

* Signal amplitude specified for square wave, infinite load impedance

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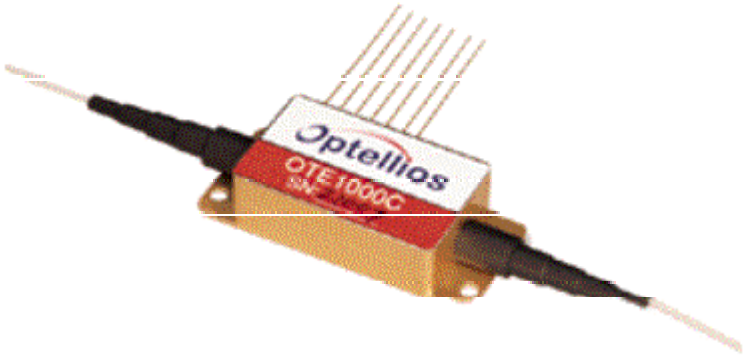
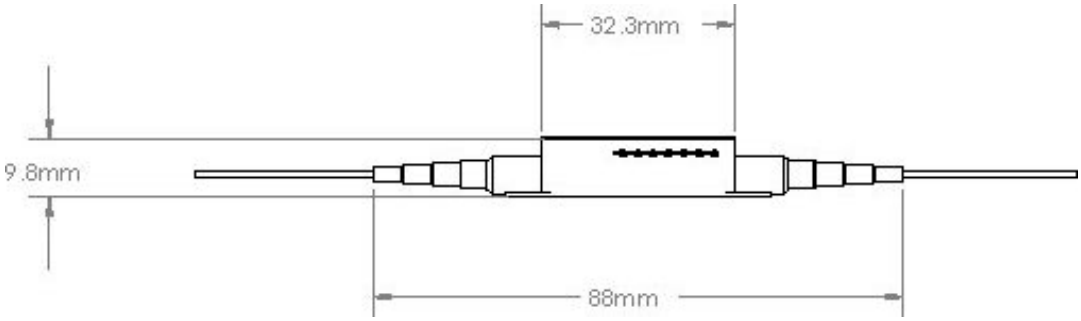
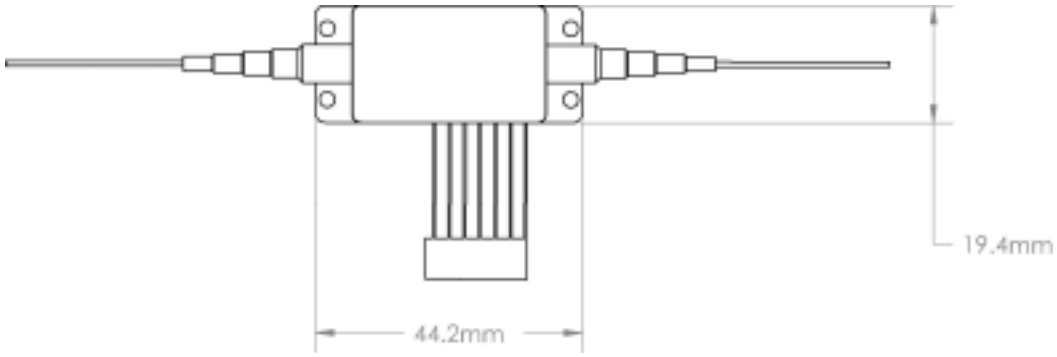
TECHNICAL DESIGN







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ORDERING INFORMATION

The OTE1000 series are available with a range of optical connectors, please specify when ordering using the part number information below:

PART NUMBER

OTE1000□-□□ (E.g.: OTE1000C-FC)

Waveband
C
S
L

Part No. Ends	Connector Option
FC	FC/PC Both Ends
FA	FCA/PC Both Ends
SC	SC/PC Both Ends
SA	SCA/PC Both Ends
00	No Connector

EVALUATION KIT

We also offer an evaluation kit, which represents the quickest way to get started analyzing and testing the OTE1000 Series Tilt Equalizers. The Kit contains everything needed to drive the device from a laptop or PC with a PCMCIA interface, including DAQ Card, Software and Cables.

Please Specify Part Number OPTE1000-OTE when ordering

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