

# Optical Comb Generator WTEC-01



WTEC-01 is a FP-EO\*1 type optical frequency comb generator with high frequency stability and low phase noise. The components are all passive so that the comb stability and comb interval are equal to stability of input laser and modulation frequency (RF) respectively. FP-EO modulator is a waveguide which achieves high performance and high reliability. WTEC-01 includes a temperature controller to control FP-EO modulator.

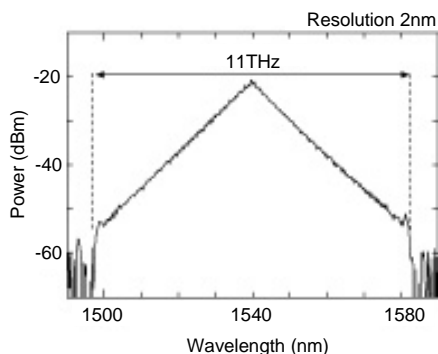
\*1 FP-EO: Fabry Perot-Electro Optic

\*2 Figure of Merit =  $V\pi/\text{Finesse}$

## ■ Features

- High finesse FP cavity
- Low  $V\pi$ \*2
- Low power consumption
- High reliability
- Compact and easy operation

## ■ Comb spectrum



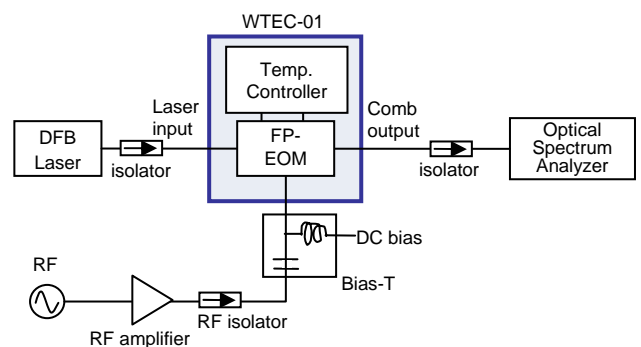
## ■ Specification

Item	Specification
Center frequency*2	1530 ~ 1565 nm
Modulation frequency*3	25GHz
Comb stability*4	Same as reference
Optical input power	< 40 mW
RF input power	< 0.5 W
Output efficiency	0.3 %
Finesse	> 50
Comb span	> 10 THz
Flatness	-7 dB/THz
Dimension	200W x 140D x 80H mm <sup>3</sup>

\*3 Laser input should be single mode and linewidth <10MHz is recommended. Optical Isolator between input laser and this device is strongly recommended.

\*4 10GHz is also available.

## ■ System configuration



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