



**Description :**

The FS-LN-170 is an acousto-optic frequency shifter optimized for operation at 1550 nm and 170 MHz. A 170 MHz RF signal is supplied to the device, and the output optical signal gets shifted by the same frequency compared to the input optical frequency.

**Features :**

- high contrast (> 45 dB)
- easy to use,
- low power consumption
- reduced footprint

**Applications :**

- fiber optics sensors
- metrology

**Options :**

- alternative frequencies
- alternative optical wavelengths

**RF and optical specifications (typical)**

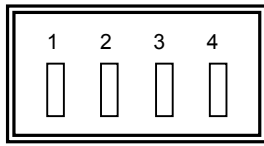
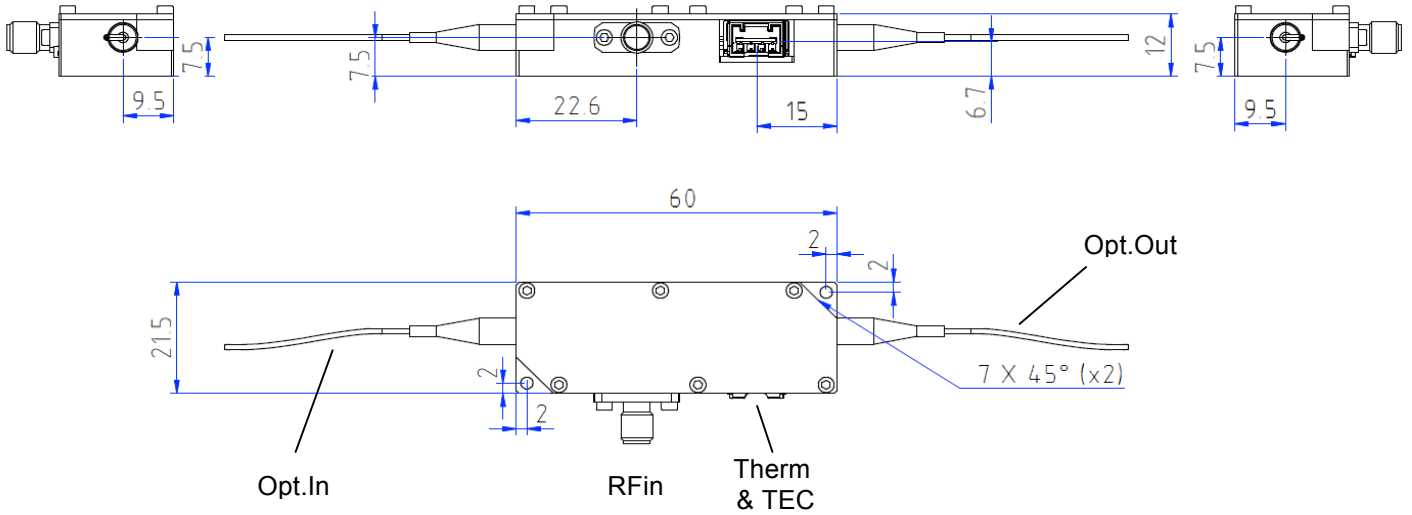
Optical wavelength	nm	1550
Acoustic central frequency (max polarization conversion)	MHz	171
Acoustic central frequency bandwidth (@-3 dB)	kHz	200
RF required power for maximum conversion	dBm	21

Waveguide technology	Ti diffusion	
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**Packaging-interfaces**

Input fiber	Polarization maintaining, Panda type
Output fiber	Polarization maintaining, Panda type
Input optical connector (orientation)	FC/APC – Key // slow axis
Output optical connector (orientation)	FC/APC – Key // slow axis
Input RF connector	50 Ω Female SMA
DC connectors (Therm. & TEC)	Molex 502494-0670
Package sizes	60 x 21.5 x 12 mm <sup>3</sup>

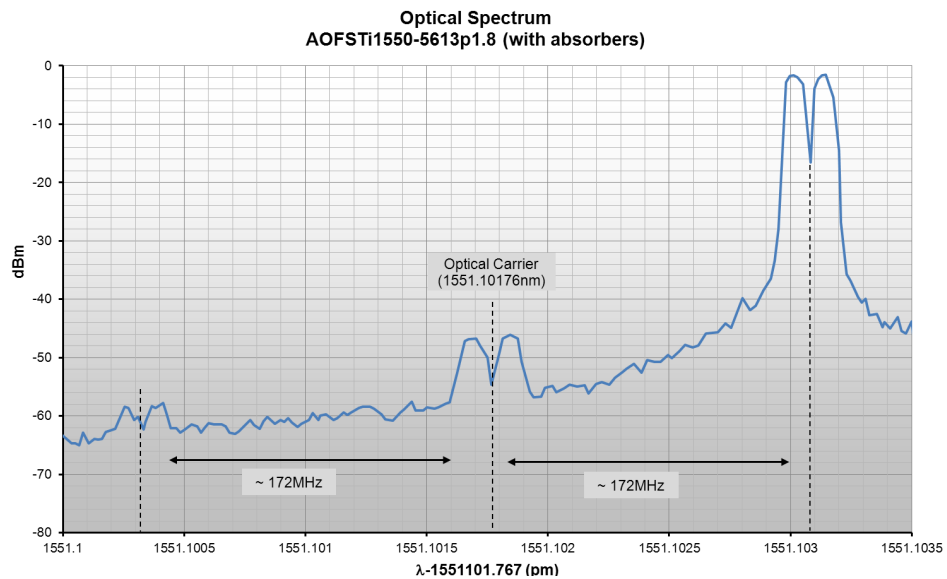
**Product dimension and pin-out :**



Therm. & TEC connector

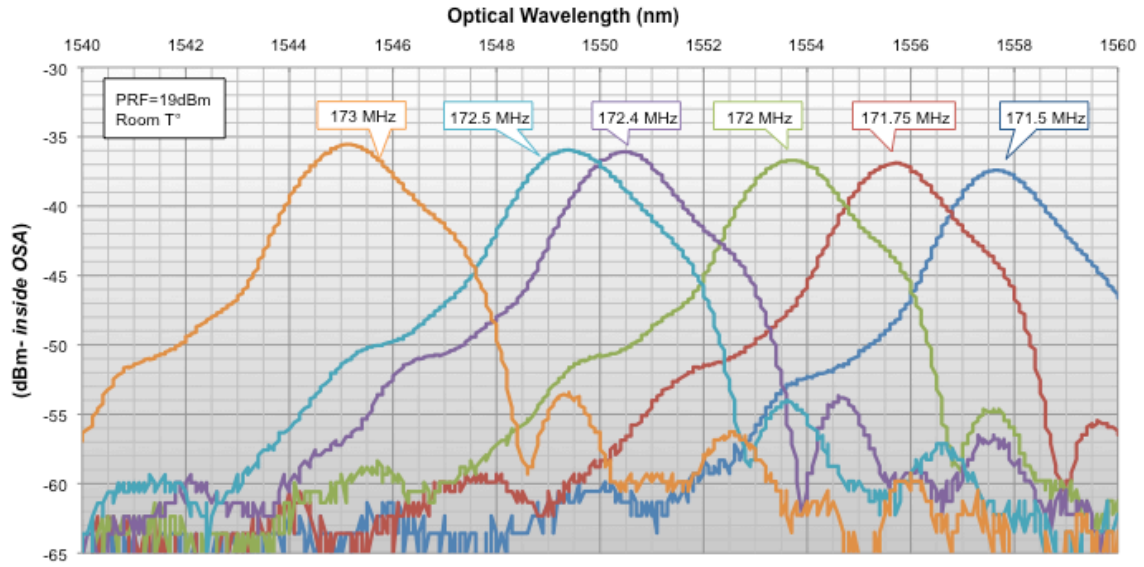
RFin	RF INPUT
1	Peltier element (+)
2	Peltier element (-)
3	Thermistor
4	Thermistor
	RF ground connected to housing

**Output optical spectrum :**



*this very high resolution output spectrum shows the laser double line*

**RF- Tunability- AOFSTi1550-5675p1.18**



*typical RF tunability curve vs wavelength*