



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

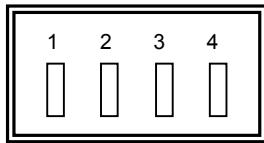
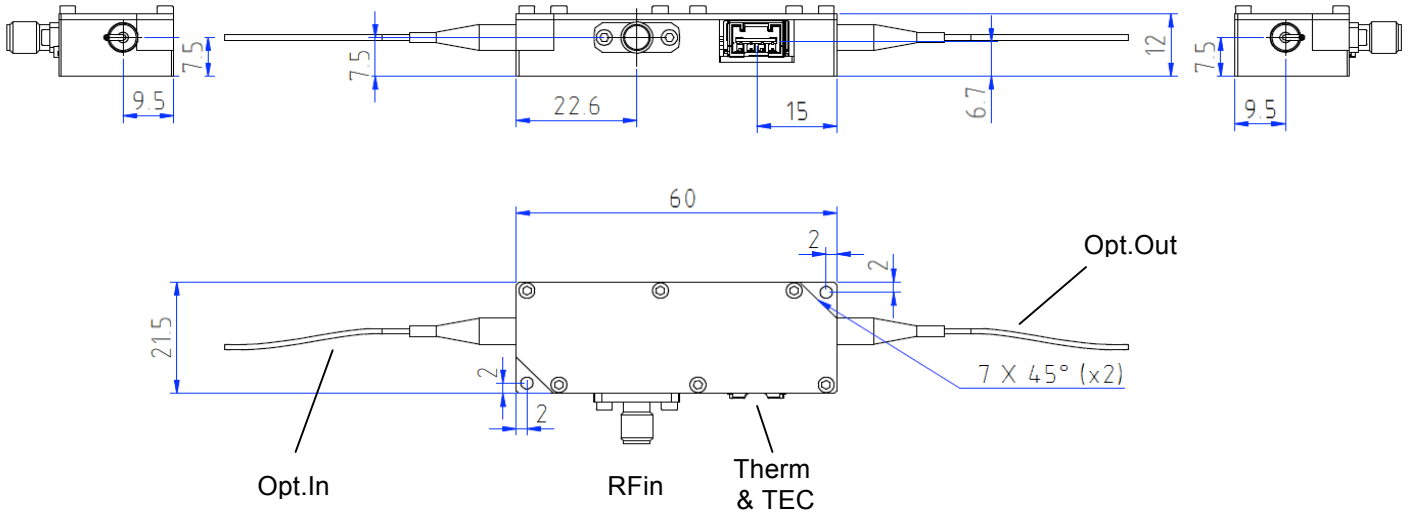
RF and optical specifications (typical)

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

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 ³

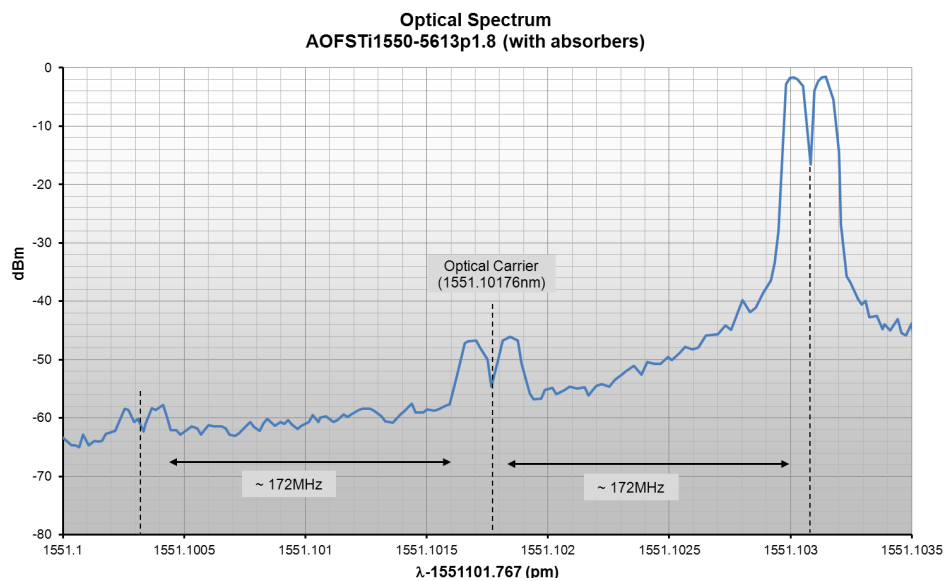
Product dimension and pin-out :



Therm. & TEC connector

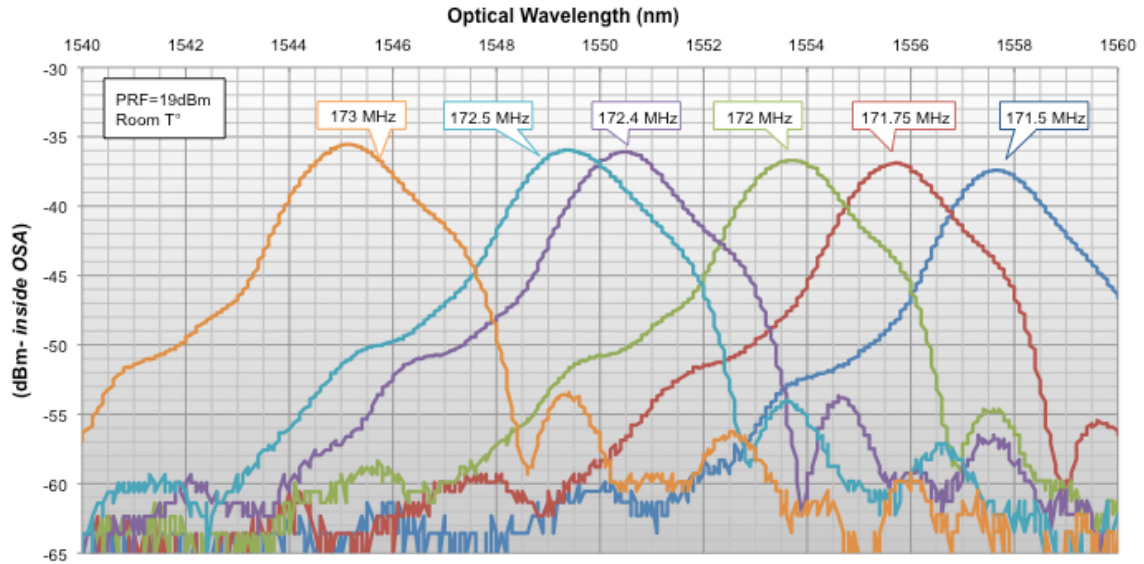
RFin	RF INPUT
1	Peltier element (+)
2	Peltier element (-)
3	Thermistor
4	Thermistor
	RF ground connected to housing

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