

# MEMS ULTRA-COMPACT WIDEBAND TUNABLE FILTER

DiCon's MEMS Ultra-Compact Wideband Tunable Filter is optimized for ASE noise suppression and signal clean up applications. It features a compact form factor for easier integration and utilizes DiCon's proven high reliability, long life MEMS technology.

This tunable filter operates by using a grating to de-multiplex the incoming light and then precisely directs the requested passband to the output fiber, using a patented ultra-stable and reliable MEMS mirror.



## FEATURES

- Ultra-Compact Design
- Typical 3 dB Bandwidths from 100 to 250 GHz
- Proven MEMS Durability & Reliability
- Hermetically Sealed
- Fast Tuning Speed
- Extremely Low Power Consumption  $\leq 160 \mu\text{W}$

## APPLICATIONS

- Noise Suppression (eg. for ASE noise)
- Signal Clean Up



# MEMS ULTRA-COMPACT WIDEBAND TUNABLE FILTER

## OPTICAL SPECIFICATIONS<sup>1</sup>

PARAMETER	RATING
IL @ Peak <sup>2</sup>	3.0 dB max.
Bandwidth @ 3 dB	Contact DiCon for details <i>Typically from 100 to 250 GHz other bandwidth options are available</i>
Back Reflection	-35 dB max.
PDL <sup>2</sup>	0.30 dB max.
Tuning Resolution	10 pm
Tuning Speed <sup>3</sup>	30 ms max.
Optical Power	500 mW max.
Durability	1 billion cycles min.
Operating Temp	-5 to 70 °C
Storage Temp	-40 to 85 °C
Fiber Type	9/125 μm singlemode

- All specifications are referenced without connectors.
- Measured at room temperature.
- Only guaranteed when used with optimized control HW/FW.

## ORDERING INFORMATION

UTF -  -  - 9 - 2B -  -

### Bandwidth

X Contact DiCon  
for details

### Tuning Range

13 1290-1330 nm  
15 1528-1568 nm  
16 1570-1610 nm

*Custom Tuning Range Available Upon Request*

### Fiber Type

9 9/125 μm singlemode

### Jacket Type

2B 250 μm bare fiber

### Connector Type

LC LC/SPC  
LC/APC LC/APC  
N NONE

*Also Available: SC, SC/UPC, SC/APC, ST, ST/UPC, FC*

### Pigtail Length

1 1 Meter  
X Specify X Meters

## ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	Non-latching
Control Type	Direct Voltage <sup>1</sup>
Vcc Voltage	0-45 VDC
Vcc Damage Threshold	50 VDC
Power Consumption	160 uW max.

- Tolerance is +/-10 mV to meet optical specifications.