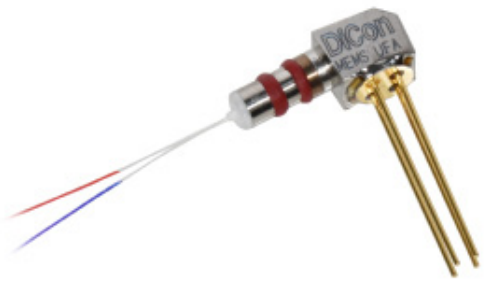
MEMS ULTRA-COMPACT WIDEBAND TUNABLE FILTER WITH VOA

DiCon's MEMS Ultra-Compact Wideband Tunable Filter with VOA 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 ≤ 160 µW

APPLICATIONS

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

DiCon FIBEROPTICS

MEMS ULTRA-COMPACT WIDEBAND TUNABLE FILTER WITH VOA

OPTICAL SPECIFICATIONS[1]

PARAMETER	RATING
IL @ Peak[2]	3.0 dB max.
Bandwidth @ 3 dB	Contact DiCon for details *Typically from 100 to 250 GHz other bandwidth options are available*
Back Reflection	-35 dB max.
PDL[3]	0.25 dB max.
Tuning Resolution	10 pm
Tuning Speed[4]	30 ms max.
VOA Response Time[4]	20 ms max.
Attenuation Range	20 dB min.
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

1. All specifications referenced without connectors.
2. IL measured at room temperature.
3. At 0dB attenuation at room temperature.
4. Only guaranteed when used with optimized control HW/FW.

ORDERING INFORMATION

UFA - □ - □ - □ - 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

Attenuator Type

T	Transparent[1]
O	Opaque[2]

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

1. Minimum insertion loss at 0 V.
2. Minimum insertion loss is to be determined by test data (high isolation at 0 V).

ELECTRICAL SPECIFICATIONS

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

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