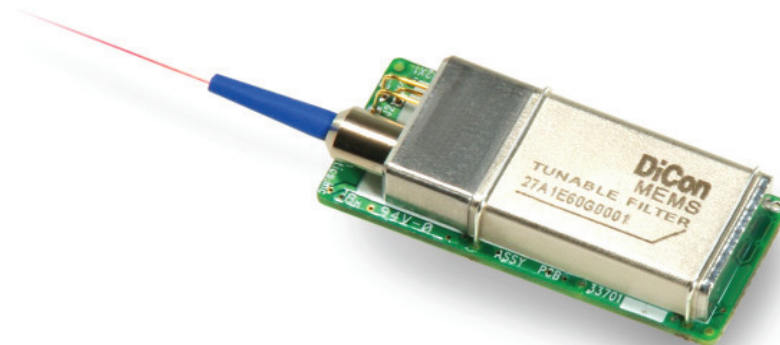


# MEMS NETWORK TUNABLE FILTER (100GHz)

DiCon's MEMS Network Tunable Filter allows one channel to be selected from network traffic on a 100GHz channel plan, and can be scanned rapidly over the C or L band, or parked at a requested channel. This ultra-compact tunable filter is a next-generation design and has been optimized with an efficient, cost-effective optical core, making it ideal for deployment in ROADM networks, channel monitoring, FTTx or other applications that require a flexible and reliable solution.

DiCon's MEMS Network Tunable Filter operates by collecting and collimating light from the input fiber, and then de-multiplexing the light via a grating. The de-multiplexed light then reflects off of an ultra-stable and reliable DiCon MEMS mirror, which precisely directs the requested channel to the output fiber. The MEMS mirror utilizes DiCon's advanced MEMS technology developed over many years at DiCon, and has been tested and proven in various demanding telecommunications applications.



## FEATURES

- Ultra-Compact Design
- $\lambda$  Setting Accuracy of  $\pm 50$  pm
- Proven MEMS Durability & Reliability
- Fast Tuning Speed
- No Thermal Heating

## APPLICATIONS

- ROADM Networks
- Optical Channel Monitoring
- Noise Suppression
- FTTx



# MEMS NETWORK TUNABLE FILTER (100GHz)

## OPTICAL SPECIFICATIONS

PARAMETER		RATING
Tuning Range	C-Band	1529 to 1564 nm
	L-Band	1575 to 1610 nm
IL @ Peak <sup>1</sup>		3.5 dB max.
Bandwidth @ 3 dB		0.34 nm min.
Bandwidth @ 20 dB		1.40 nm max.
Back Reflection		-40 dB max.
PDL		0.3 dB max.
$\lambda$ Setting Error <sup>2</sup>		$\pm 50$ pm max.
Tuning Resolution		10 pm
Tuning Speed <sup>2</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 $\mu$ m single mode

1. IL measured at 25 °C. IL < 4.0 dB over entire operating temperature range.
2. Only guaranteed when used with optimized control HW/FW.

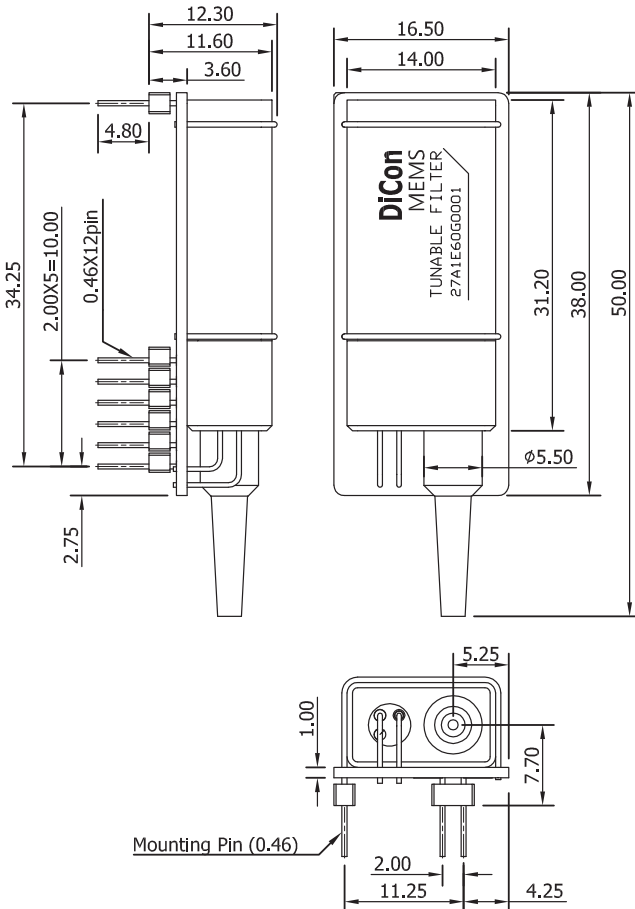
## ORDERING INFORMATION

**NTF - 100 -  - 9 - 2B -  -**

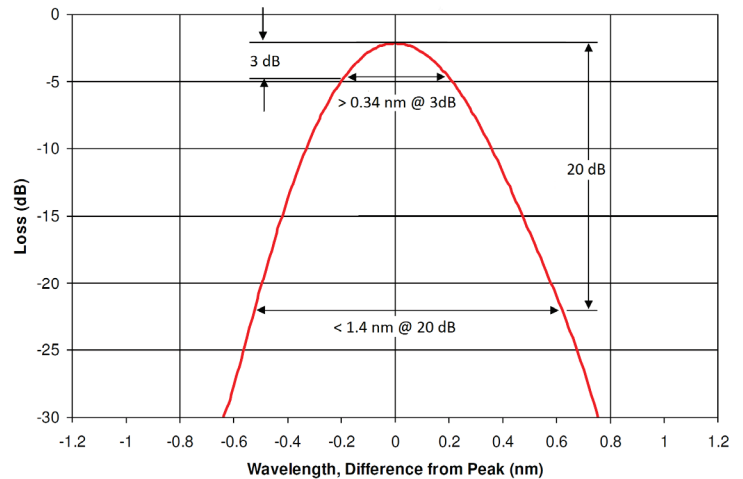
<b>Channel Spacing</b>	
100	100GHz
<b>Tuning Range</b>	
15	1529-1564 nm
16	1575-1610 nm
<i>Custom Tuning Range Available Upon Request</i>	
<b>Fiber Type</b>	
9	9/125 $\mu$ m single mode fiber
<b>Jacket Type</b>	
2B	250 $\mu$ m bare fiber
<b>Connector Type</b>	
FC	FC/SPC
FC/APC	FC/APC
N	NONE
<i>Also Available: SC, SC/UPC, SC/APC, ST, ST/UPC, LC</i>	
<b>Pigtail Length</b>	
1	1 Meter
X	Specify X Meters

## MECHANICAL DIMENSIONS

(Units: mm)



## OPTICAL SPECTRUM



## ELECTRICAL SPECIFICATIONS

PARAMETER	RATING
Latching Type	Non-latching
Control Type	Serial Peripheral Interface (SPI)
Vcc Voltage	12 $\pm$ 2 VDC
Vcc Damage Threshold	15 VDC
Vms Voltage <sup>1</sup>	45 $\pm$ 4 VDC
Vms Damage Threshold	50 VDC
Power Consumption	100 mW max.

1. MEMS Supply Voltage