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
- λ Setting Accuracy of ± 50 pm
- Proven MEMS Durability & Reliability
- Fast Tuning Speed
- No Thermal Heating

APPLICATIONS

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



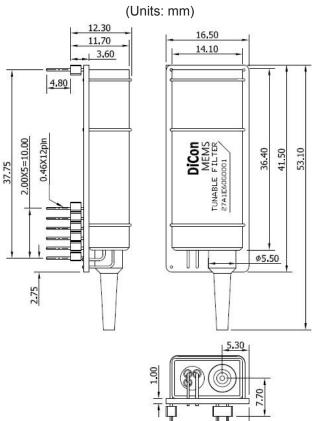
MEMS NETWORK TUNABLE FILTER (100GHz)

OPTICAL SPECIFICATIONS

DADAMETER	<u> </u>	DATING
PARAMETER		RATING
Tuning	C-Band	1529 to 1564 nm
Range	L-Band	1575 to 1610 nm
IL @ Peak1		3.5 dB max.
Bandwidth @ 3 dB		0.34 nm min.
Bandwidth @ 20 dB		1.40 nm max.
Back Reflection		-40 dB max.
PDL ²		0.3 dB max.
λ Setting Error³		± 50 pm max.
Tuning Resolution		10 pm
Tuning Speed ³		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 single mode
1 II managinal at 2500 II < 4.0 dB over entire energing temperature range		

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

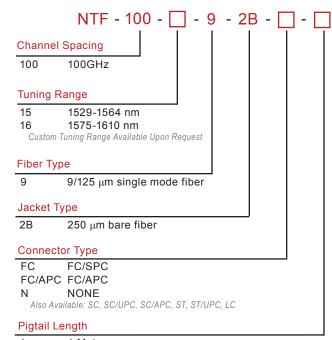
MECHANICAL DIMENSIONS



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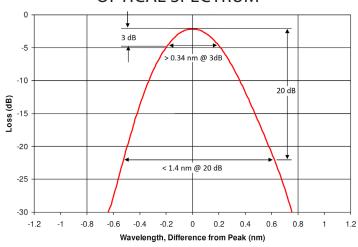
Mounting Pin (0.46)

ORDERING INFORMATION



1 1 Meter X Specify X Meters

OPTICAL SPECTRUM



ELECTRICAL SPECIFICATIONS

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

1. MEMS Supply Voltage