



Microwave Filter Company

TL Series Tubular Lowpass Filters



Tubular Lowpass Filters are used to suppress harmonics and high frequency interference. Typical applications include low to medium power transmitter output filters and test equipment receiver inputs to improve signal quality.

Each Lowpass Filter is a precision machined captivated assembly. The tubular design integrates high and low impedance elements within the assembly – resulting in excellent electrical performance in the smallest possible configuration.

High/Low Impedance Lowpass Filters have many desirable traits when compared to other construction styles. Manipulating the characteristic impedance of a transmission line yields an inherently low-profile, axially connected filter with a minimal number of solder joints. The net result is high performance and reliability at a low per piece cost.

FEATURES:

- In-Line, low profile construction
- Temperature stable
- Custom units available
- High power units available
- Broad range of cutoff frequencies and rejection specifications
- Multiple connector and mounting options
- Low VSWR

COMMON SPECIFICATIONS:

Passband: 0.4fc – 1.0 fc
 Stopband:
 At 1.2 fc: 20 db Min Rejection
 At 1.5 fc: 50 dB Typ Rejection
 Power Rating:
 < 7 GHz: 50W Avg, 4 kW peak
 > 7 GHz: 25W Avg, 1 kW peak
 > 12 Ghz 10W Avg, 300W peak
 Temperature: -55° C to 150° C

MODEL DESIGNATION

Code	Description
1	Model Number
2	Cutoff Frequency (MHz)

SAMPLE

TL20-	1000
1	2

* See Tables for Model / Connector Options

Contact Factory With Your Specific Needs For:

- Electrical Performance
- Mechanical Configuration

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6743 KINNE STREET, E. SYRACUSE, NY 13057

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TABLE 1

Model Selections & Specifications for TLN Series/N Connectors					
Model Number	Cut-Off MHz	VSWR (Max)	Loss (dB)	Length* in.(mm)	Weight* oz.(g)
TL400N	400	1.3	<0.2	14.6 (409)	7 (178)
TL700N	700	1.3	<0.2	9.9 (277)	6 (152)
TL1000N	1000	1.3	<0.2	7.4 (207)	5 (127)
TL1500N	1500	1.3	<0.2	5.8 (162)	4 (102)
TL2000N	2000	1.3	<0.2	4.7 (132)	4 (102)
TL3000N	3000	1.3	<0.2	4.8 (134)	3 (76)
TL4000N	4000	1.4	<0.2	4.0 (112)	3 (76)
TL5000N	5000	1.4	<0.2	3.6 (101)	3 (76)
TL6000N	6000	1.4	<0.2	3.2 (90)	3 (76)
TL7000N	7000	1.4	<0.2	3.0 (84)	3 (76)
TL8000N	8000	1.5	<0.3	3.2 (90)	3 (76)
TL9000N	9000	1.5	<0.3	3.0 (84)	3 (76)

TABLE 2

Model Selections & Specification for SMA (TLS Series)					
Model Number	Cut-off (MHz)	VSWR (Max)	Loss (dB)	Length* in	Weight* oz.
TL400S	400	1.3	<0.2	14.6	8
TL500S	500	1.3	<0.2	14.4	6
TL800S	800	1.3	<0.2	9.5	6
TL1000S	1000	1.3	<0.2	7.5	5.5
TL1200S	1200	1.3	<0.3	6.2	5
TL1500S	1500	1.3	<0.4	6.2	4.7
TL2000S	2000	1.3	<0.4	4.8	4.5
TL3000S	3000	1.4	<0.4	4.6	4
TL4000S	4000	1.4	<0.4	4	4
TL5000S	5000	1.4	<0.4	3.6	3.5
TL6000S	6000	1.4	<0.4	3.2	3.2
TL7000S	7000	1.5	<0.4	3	3
TL8000S	8000	1.5	<0.5	3.1	3
TL9000S	9000	1.5	<0.5	3	2.8
TL10000S	10000	1.5	<0.5	2.8	2.8
TL12000S	12000	1.5	<0.5	2.8	2.5
TL15000S	15000	1.5	<0.6	2	2.5

* Weights and lengths all nominal

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