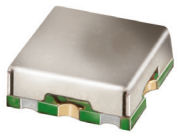
Surface Mount

High Pass Filter

THP-700+

50Ω 700 to 4000 MHz



CASE STYLE: GQ1018

The Big Deal

- Small size (0.25" X 0.25" X 0.10")
- Good matching
- Low insertion loss

Product Overview

THP-700+ is a 50Ω high pass filter fabricated using SMT technology. This high pass filter covers from 700 to 4000 MHz. This series of filters are constructed in a tiny package offering dual advantage of superior lumped element filter performance in a space saving SMT package. These models are suitable for mass production without losing flexibility of small volume requirements. It has repeatable performance across lots and consistent performance across temperature.

Key Features

Feature	Advantages
Low insertion loss	Can be used in high performance applications.
Good rejection	This enables the filter to attenuate spurious signals and reject harmonics for broad band frequency.
Small size, 0.25" X 0.25" X 0.10"	The small surface mount package enables the THP-700+ to be used compact designs.

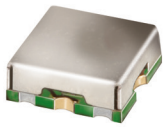
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Surface Mount

High Pass Filter

THP-700+

50Ω 700 to 4000 MHz



CASE STYLE: GQ1018

Features

- Low insertion loss
- Good matching
- Small size (0.25" X 0.25" 0.10")

Applications

- Defense system
- Public safety services
- Private and public mobile

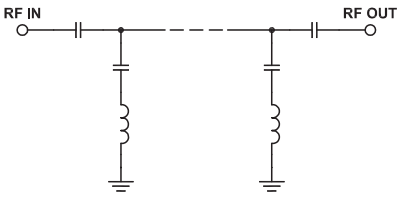
Electrical Specifications at 25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Stop Band	Rejection Loss	DC-F1	DC-395	20	30	-	dB
	VSWR	DC-F1	DC-395	-	20	-	:1
Pass Band	Insertion Loss	F2-F3	700-4000	-	0.5	2.0	dB
	VSWR	F2-F3	700-4000	-	1.2	1.92	:1

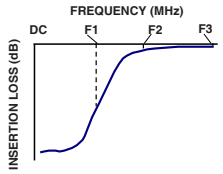
Maximum Ratings	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	0.5 W max.

Permanent damage may occur if any of these limits are exceeded.

Functional Schematic

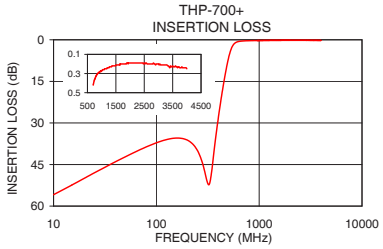


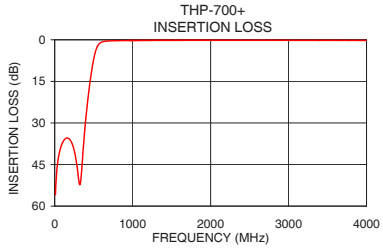
Typical Frequency Response

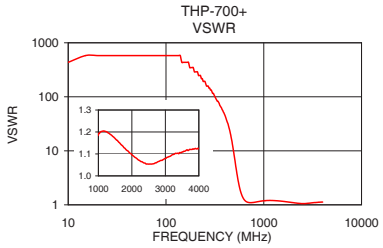


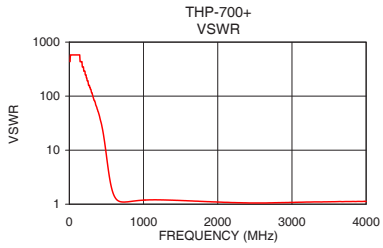
Typical Performance Data at 25°C

Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)
10	55.89	434.30
75	39.09	579.06
100	37.17	579.06
250	39.85	193.02
390	31.23	51.10
395	29.71	48.26
400	28.26	45.72
430	20.46	31.60
450	15.98	23.18
470	12.01	15.67
500	7.05	7.87
530	3.64	3.90
570	1.47	1.97
600	0.88	1.47
700	0.42	1.10
1050	0.26	1.20
1000	0.27	1.19
2000	0.19	1.10
3000	0.20	1.08
4000	0.25	1.12









+RoHS Compliant

The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications

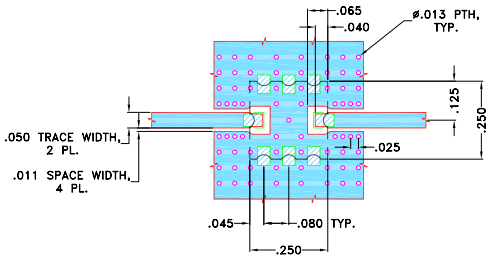
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Pad Connections

INPUT	8
OUTPUT	4
GROUND	1, 2, 3, 5, 6, 7

Demo Board MCL P/N: TB-680
Suggested PCB Layout (PL-372)



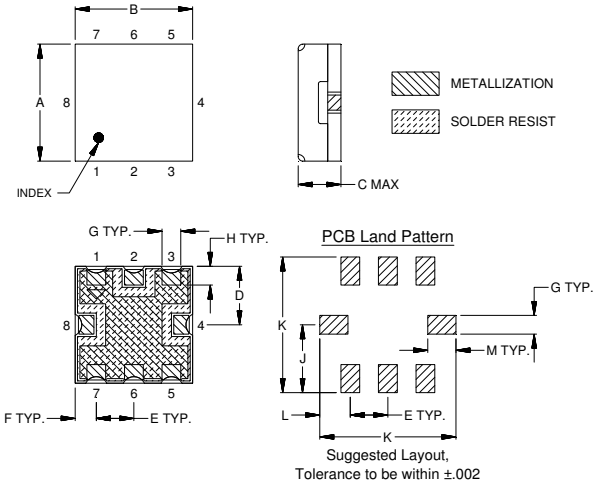
NOTES:

1. TRACE WIDTH IS SHOWN FOR OAK (OAK-602) WITH DIELECTRIC THICKNESS .022"±.0015". COPPER: 1/2 OZ. EACH SIDE. FOR OTHER MATERIALS TRACE WIDTH MAY NEED TO BE MODIFIED.
2. BOTTOM SIDE OF THE PCB IS CONTINUOUS GROUND PLANE.

DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Outline Drawing



Outline Dimensions (inch / mm)

A	B	C	D	E	F	G
.25	**.25**	**.10**	**.125**	**.080**	**.045**	**.040**
6.35	6.35	2.54	3.18	2.03	1.14	1.02

H	J	K	L	M	Wt.
.040	**.145**	**.290**	**.065**	**.060**	grams
1.02	3.68	7.37	1.65	1.52	.25

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