Surface Mount

Bandpass Filter

BPF-A600+

50Ω 500 to 700 MHz

CASE STYLE: HQ1157

The Big Deal

- Sharp roll-off
- High rejection (50 dB typical)
- Miniature shielded package

Product Overview

The BPF-A600+ is a band pass filter in a shielded package (size of 0.365" x 1.360" x .35") fabricated using SMT technology. Covering 600 MHz ± 100 MHz bandwidth, these units offer good matching within the passband and high rejection. This unit uses a miniature high Q capacitors and wire welded inductors for high reliability. In addition it has repeatable performance across production lots and consistent performance across temperature.

Key Features

Feature	Advantages
More than 40dB rejection up to 1800 MHz	This enables the filter to attenuate spurious signals and reject harmonics for broad band of frequency.
Sharp shape factor of 1.2	Sharp shape factor helps in adjacent channel rejection and hence increased selectivity.
Shielded case	Reduced interference with and from the surrounding components.

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Bandpass Filter

50Ω 500 to 700 MHz

BPF-A600+

CASE STYLE: HQ1157
PRICE: $29.95 ea. QTY (1-9)

Features

- Sharp roll-off
- High rejection, 50 dB typical
- Shielded case
- Aqueous washable

Applications

- Broad band wireless 4G system (UHF Wimax)
- Harmonic rejection
- Transmitters / receivers

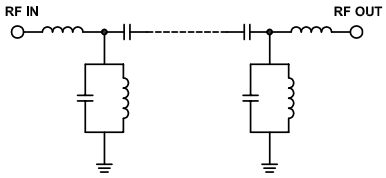
Electrical Specifications at 25°C

Parameter		F#	Frequency (MHz)	Min.	Typ.	Max.	Unit
Pass Band	Center Frequency	—	—	—	600	—	MHz
	Insertion Loss	F1-F2	500-700	—	1.6	2.5	dB
	VSWR	F1-F2	500-700	—	1.6	2.2	:1
Stop Band, Lower	Insertion Loss	DC-F3	DC-380	20	32	—	dB
	VSWR	DC-F3	DC-380	—	14	—	:1
Stop Band, Upper	Insertion Loss	F4-F5	795-1800	20	36	—	dB
	VSWR	F4-F5	795-1800	—	13	—	:1

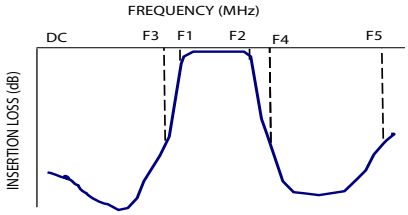
Maximum Ratings	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
RF Power Input	1W max.

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

Functional Schematic



Typical Frequency Response

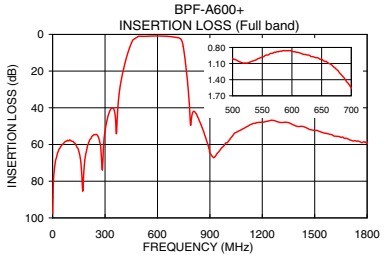


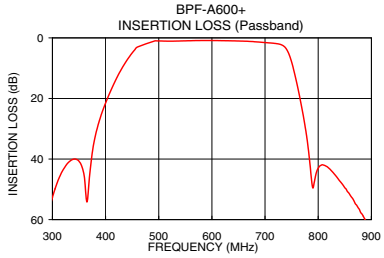
Typical Performance Data at 25°C

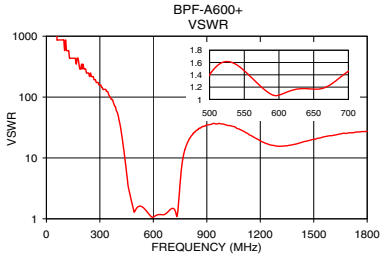
Frequency (MHz)	Insertion Loss (dB)	VSWR (:1)	Frequency (MHz)	Group Delay (nsec)
0.5	97.89	5790.59	500.0	5.65
150.0	63.66	434.30	510.0	5.16
300.0	52.69	157.93	520.0	4.82
380.0	32.96	75.53	530.0	4.62
402.5	20.44	49.64	540.0	4.51
430.0	10.28	16.89	550.0	4.45
450.0	4.99	5.70	560.0	4.41
460.0	3.01	3.27	570.0	4.39
500.0	1.01	1.40	580.0	4.38
600.0	0.87	1.07	600.0	4.41
700.0	1.55	1.45	610.0	4.44
740.0	3.63	1.61	620.0	4.50
750.0	7.97	3.76	630.0	4.59
760.0	15.14	7.53	640.0	4.71
780.0	34.74	14.50	650.0	4.88
795.0	45.55	18.70	660.0	5.08
890.0	60.57	33.42	670.0	5.33
1000.0	58.98	35.46	680.0	5.62
1500.0	52.38	20.22	690.0	6.00
1800.0	59.23	27.59	700.0	6.55

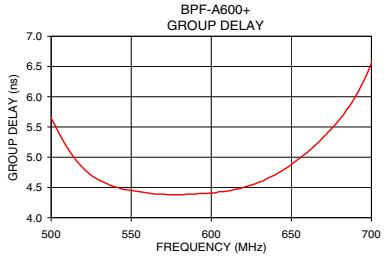
+ RoHS compliant in accordance with EU Directive (2002/95/EC)

The +Suffix has been added in order to identify RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications.









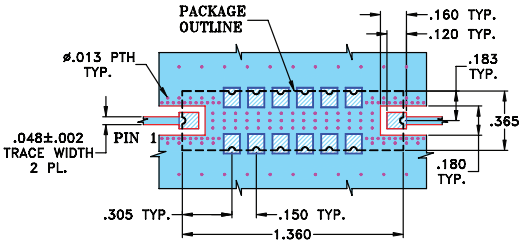
For detailed performance specs & shopping online see web site

REV. OR
M130707
BPF-A600+
EDR-9852AU
RAV/URJ/NY
110321

Pad Connections

INPUT	1
OUTPUT	8
GROUND	2,3,4,5,6,7,9,10,11,12,13,14

Demo Board MCL P/N: TB-363+
Suggested PCB Layout (PL-227)



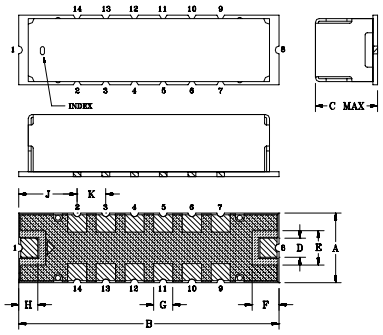
NOTE:

1. TRACE WIDTH IS SHOWN FOR FR4 WITH DIELECTRIC THICKNESS .025"±.002". 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.

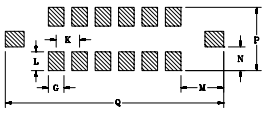
DENOTES PCB COPPER LAYOUT WITH SMOBC (SOLDER MASK OVER BARE COPPER)

DENOTES COPPER LAND PATTERN FREE OF SOLDERMASK

Outline Drawing



PCB Land Pattern



Suggested Layout,
Tolerance to be within ±.002

METALLIZATION

SOLDER RESIST

Outline Dimensions (inch / mm)

A	B	C	D	E	F	G	H
.365	1.360	.35	.100	.180	.140	.100	.100
9.27	34.54	8.89	2.54	4.57	3.56	2.54	2.54

J	K	L	M	N	P	Q	wt
.305	.150	.120	.275	.152	.405	1.400	grams
7.75	3.81	3.05	6.99	3.86	10.29	35.56	4.0