

"High Frequency Ceramic Solutions"

5.24GHz High Rejection UNII-low Band Pass Filter

P/N 5235CR45A0180

Detail Specification: 10/26/2017

Page 1 of 5

General Specifications

Part Number	5235CR45A0180
Operating Passband Freq.	5150 - 5330 MHz
Insertion loss 1 (5150-5320MHz)	1.8 typ. (2.4 max.) dB
Insertion loss 2 (5320-5330MHz)	2.1 typ. (2.5 max.) dB
Return Loss (dB)	10 min.
Ripple in bandwidth (dB)	1.3 max.
Power Capacity (W)	1 max. (CW)



Top View



Side View

Attenuation (dB)		Reel Quantity	1,000 pcs
30 - 2700 MHz	55 typ. (45 min.)	Operating Temperature	-40 to +100°C
3453 - 3547 MHz	48 typ. (42 min.)	Storage Temperature	-40 to +100°C
3667 - 3883 MHz	45 typ. (40 min.)	Recommended Storage Conditions for unused T&R product	+5 ~ +35 °C, Humidity 45~75%RH, 18 months. 1 week max after opened.
5490 - 5850 MHz	52 typ. (50 min.)		

For more info go to www.johansontechnology.com/silverleads

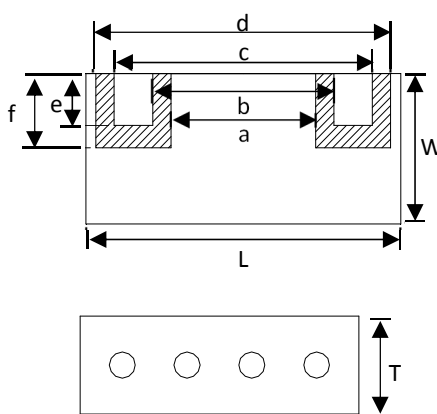
You can download measured s-parameters of this component at: www.johansontechnology.com/band-pass-filters

Part Number Explanation

P/N	Packaging Style	Bulk	Suffix = S	E.g. 5235CR45A0180S
		T & R	Suffix = T	E.g. 5235CR45A0180E
Suffix	Termination Style	Silver	Suffix = None	E.g. 5235CR45A0180(E or S)
	Evaluation Board	50Ω SMA	Suffix = EB1SMA	E.g. 5235CR45A0180-EB1SMA

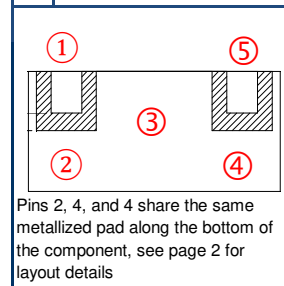
Mechanical Dimensions

	In	mm
L	0.337 ± 0.010	8.56 ± 0.25
W	0.152 ± 0.010	3.85 ± 0.25
T	0.114 ± 0.010	2.90 ± 0.25
a	0.156 ± 0.010	3.95 ± 0.25
b	0.195 ± 0.010	4.95 ± 0.25
c	0.278 ± 0.010	7.05 ± 0.25
d	0.317 ± 0.010	8.05 ± 0.25
e	0.053 ± 0.010	1.35 ± 0.25
f	0.077 ± 0.010	1.95 ± 0.25



Terminal Configuration

No.	Function
1	IN/OUT
2	GND
3	GND
4	GND
5	IN/OUT



Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.



www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012, USA • TEL +1.805.389.1166

Ver. 2.0

2017 Johanson Technology, Inc. All Rights Reserved

"High Frequency Ceramic Solutions"

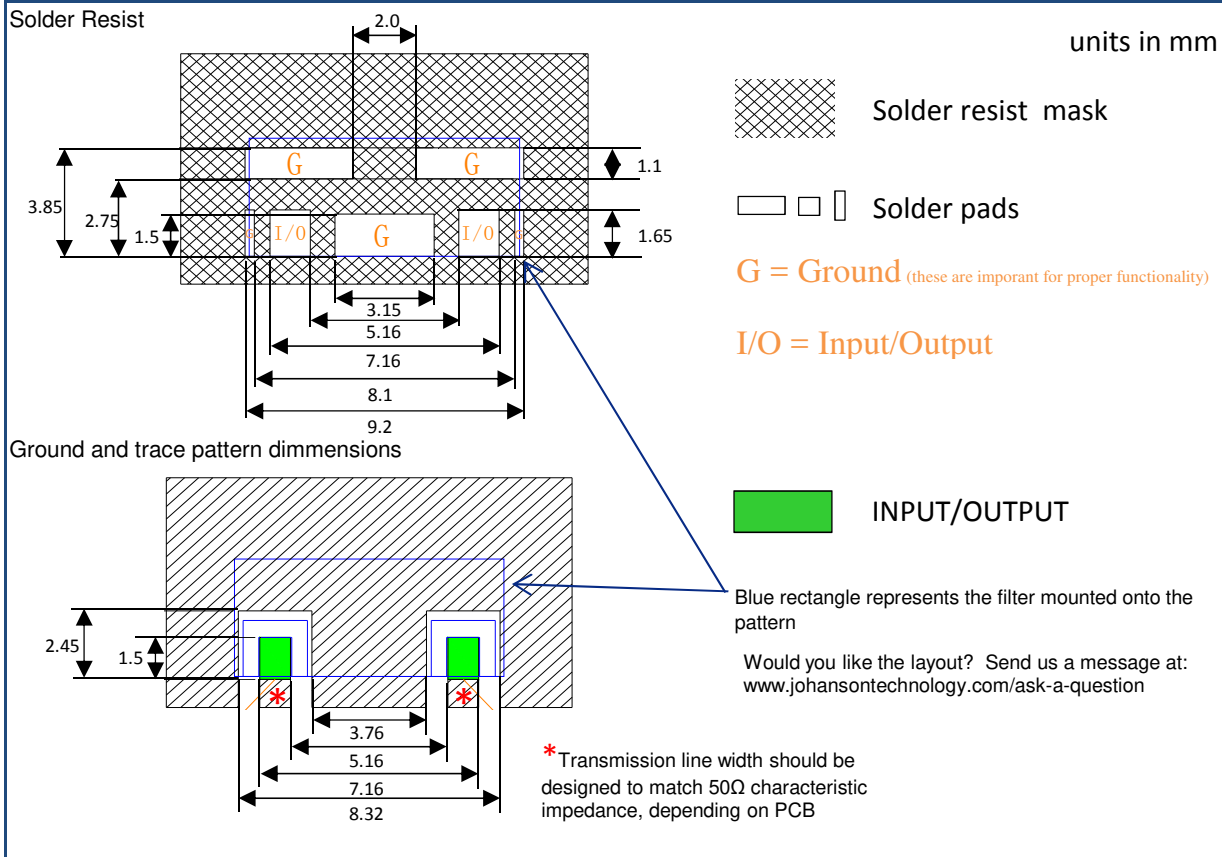
5.24GHz High Rejection UNII-low Band Pass Filter

P/N 5235CR45A0180

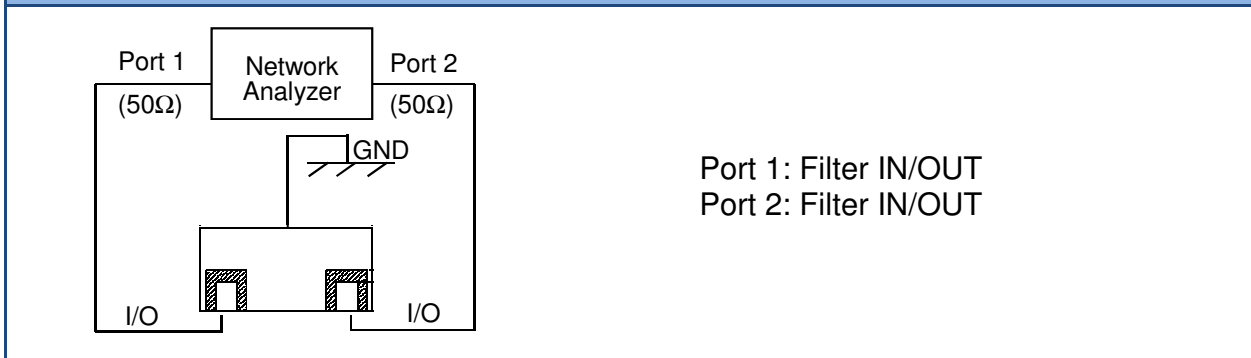
Detail Specification: 10/26/2017

Page 2 of 5

Mounting Pad Dimensions (Solder Resist pattern and Conductive pattern)



Measurement Schematic



Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.



Ver. 2.0

www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012, USA • TEL +1.805.389.1166

2017 Johanson Technology, Inc. All Rights Reserved

"High Frequency Ceramic Solutions"

5.24GHz High Rejection UNII-low Band Pass Filter

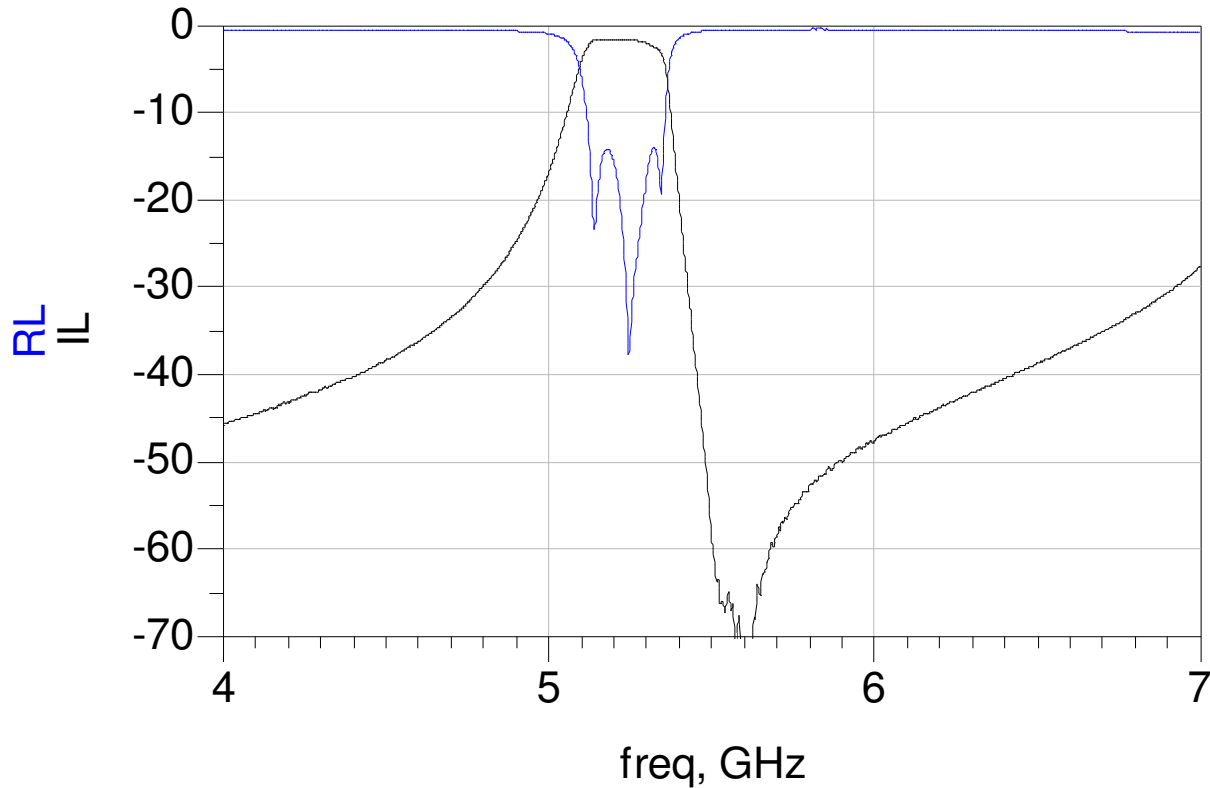
P/N 5235CR45A0180

Detail Specification: 10/26/2017

Page 3 of 5

Typical Electrical Characteristics (T=25°C)

Insertion Loss & Return loss



Do you need the S-parameter file of the above? Send us a message at:
www.johansontechnology.com/ask-a-question

Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.



Ver. 2.0

www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012, USA • TEL +1.805.389.1166

2017 Johanson Technology, Inc. All Rights Reserved

"High Frequency Ceramic Solutions"

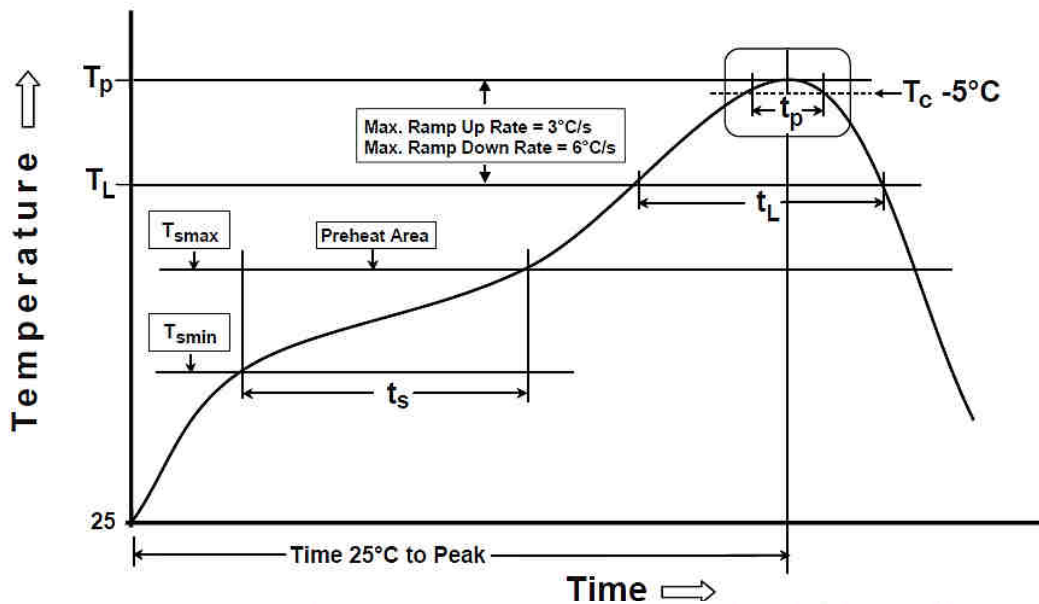
5.24GHz High Rejection UNII-low Band Pass Filter

P/N 5235CR45A0180

Detail Specification: 10/26/2017

Page 4 of 5

Recommended Reflow Soldering Profile



Phase	Profile features	Pb-Free Assembly (SnAgCu)
Preheat	-Temperature min(T_{smin}) -Temperature max(T_{smax}) -Time(t_s) from (T_{smin} to T_{smax})	150°C 200°C 60-120 seconds
Ramp-up	Avg. Ramp-up rate(T_{smax} to T_p)	3°C/second(max)
Reflow	-Temperature(T_L) -Total time above T_L (t_L)	217°C 30-100 seconds
Peak	-Temperature(T_p) -Time(t_p)	260°C 3 second
Ramp-down	Rate	6°C/second max.
Time from 25°C to peak temperature		8 minutes max.
Composition of solder paste		96.5Sn/3Ag/0.5Cu

Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.



Ver. 2.0

www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012, USA • TEL +1.805.389.1166

2017 Johanson Technology, Inc. All Rights Reserved

"High Frequency Ceramic Solutions"

5.24GHz High Rejection UNII-low Band Pass Filter

P/N 5235CR45A0180

Detail Specification: 10/26/2017

Page 5 of 5

Application Notes, Layout Files, and more

www.johansontechnology.com/band-pass-filters

Packaging information

www.johansontechnology.com/tape-reel-packaging

Soldering Information

www.johansontechnology.com/ipcsoldering-profile

MSL Info

www.johansontechnology.com/msl-rating

Recommended Storage Condition and Max Shelf Life

www.johansontechnology.com/recommended-storage-conditions

RoHS Compliance

www.johansontechnology.com/technical-notes/rohs-compliance

Antenna layout and tuning techniques

www.johansontechnology.com/tuning.html

Antenna layout review, tuning, and characterization services

www.johansontechnology.com/ipc-antenna-services

Johanson Technology, Inc. reserves the right to make design changes without notice.

All sales are subject to Johanson Technology, Inc. terms and conditions.



Ver. 2.0

www.johansontechnology.com

4001 Calle Tecate • Camarillo, CA 93012, USA • TEL +1.805.389.1166

2017 Johanson Technology, Inc. All Rights Reserved