SAW Components

SAW Tx Filter

LTE Band 17

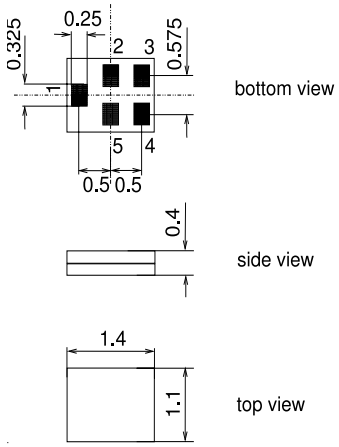
Series/type:	**B9493**
Ordering code:	**B39711B9493M410**
Date:	October 03, 2011
Version:	2.0

Application

- Low-loss RF filter for LTE systems (Tx)
- Impedance 50Ω input and output
- Unbalanced / unbalanced operation
- Usable passband 12MHz

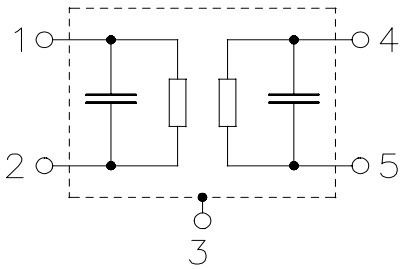
Features

- Package size 1.4 x1.1 x 0.4 mm³
- Package code QCS5I
- RoHS compatible
- Approximate weight 0.003 g
- Package for **S**urface **M**ount **T**echnology (**SMT**)
- Ni, gold-plated terminals
- **E**lectrostatic **S**ensitive **D**evice (**ESD**)
- **M**oisture **S**ensitivity **L**evel 3



Pin configuration

- 1 Input
- 4 Output
- 2,3,5 To be grounded



Data sheet SMD

Characteristics

Temperature range for specification: T = –30 ˚C to +85 ˚C
Terminating source impedance: Z_S = 50 Ω (unbalanced)
Terminating load impedance: Z_L = 50 Ω (unbalanced)

		min.	typ. @ 25 ˚C	max.	
Center frequency	f_C		710.0		MHz
Maximum insertion attenuation	α_{max}				
704.0 ... 716.0 MHz			1.8	2.5[1)]	dB
704.0 ... 716.0 MHz			1.8	3.0	dB
Amplitude ripple (p-p)					
704.0 ... 716.0 MHz			0.6	2.2	dB
Input VSWR					
704.0 ... 716.0 MHz			1.6	2.0	
Output VSWR					
704.0 ... 716.0 MHz			1.5	2.0	
Absolute attenuation	α				
10.0 ... 692.0 MHz		30	44		dB
722.0 ... 723.5 MHz		5	15		dB
723.5 ... 728.0 MHz		10	20		dB
728.0 ... 734.0 MHz		25	34		dB
734.0 ... 746.0 MHz		36	40		dB
746.0 ... 805.0 MHz		30	44		dB
869.0 ... 894.0 MHz		30	68		dB
1408.0 ... 1432.0 MHz		25	55		dB
1565.0 ... 1607.0 MHz		45	53		dB
1805.0 ... 1990.0 MHz		30	49		dB
2110.0 ... 2170.0 MHz		40	45		dB
2400.0 ... 2484.0 MHz		35	46		dB
2816.0 ... 2864.0 MHz		15	44		dB
3000.0 ... 6000.0 MHz		10	20		dB
Absolute mean attenuation[2)]	α_{mean}				
736.5 ... 743.5 MHz		38	42		dB

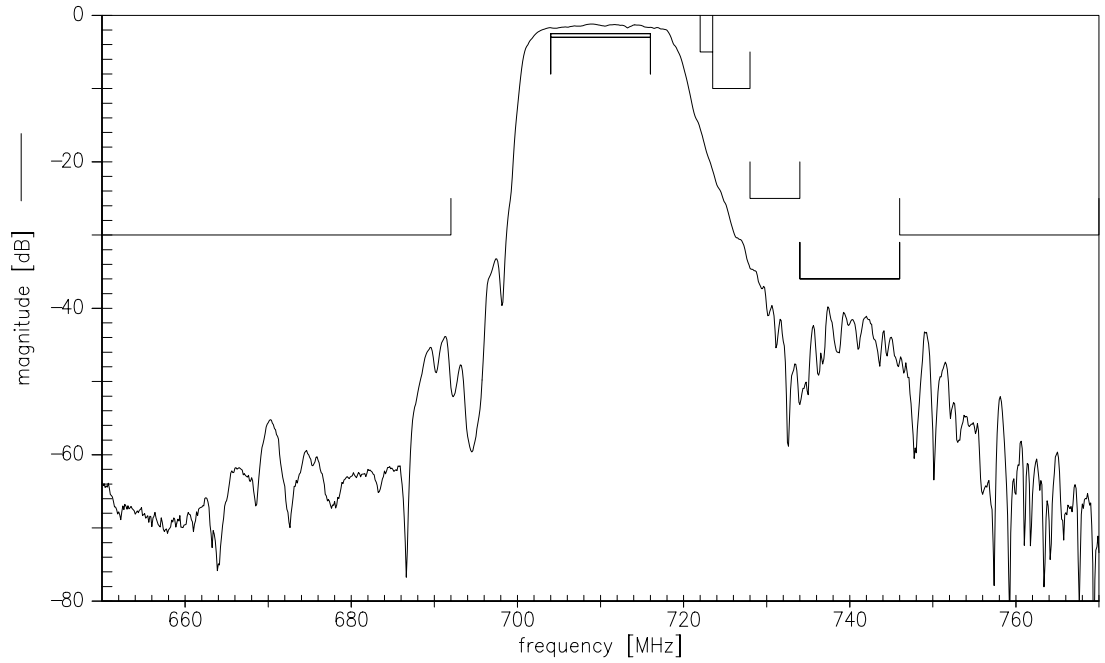
1) Maximum Insertion Loss in temperature range –10 ˚C to+70 ˚C.
2) Mean Attenuation is the integrated value of attenuation in every 5MHz channel over the specified band

Maximum ratings

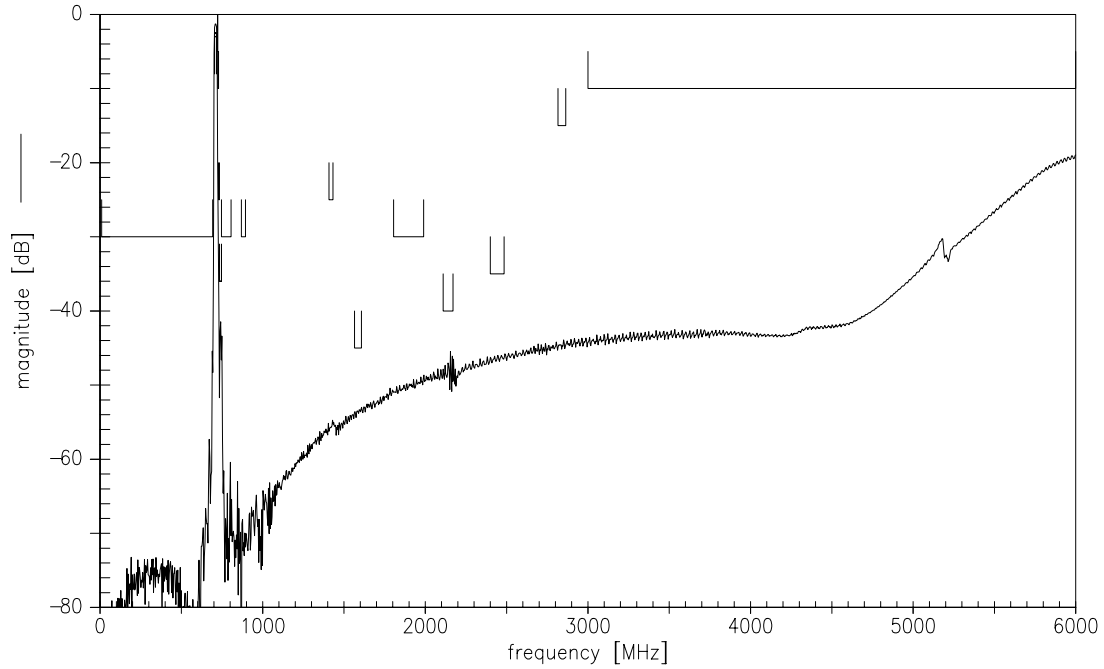
Operable temperature range	T	–30/+85	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	100[1)]	V	machine model, 1 pulse
Input power	P_{IN}	10	dBm	

1) acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.

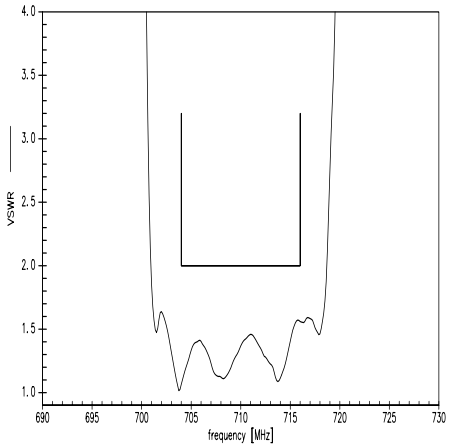
Transfer function (narrowband)

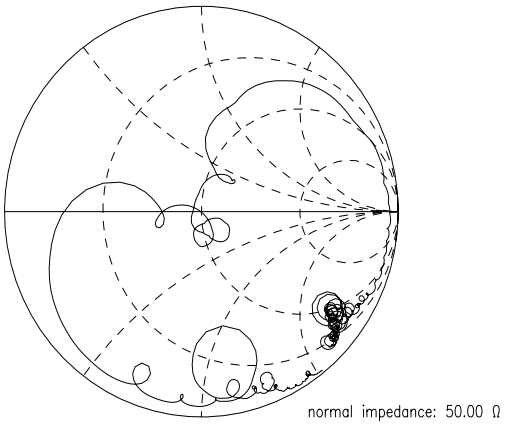


Transfer function (wideband)

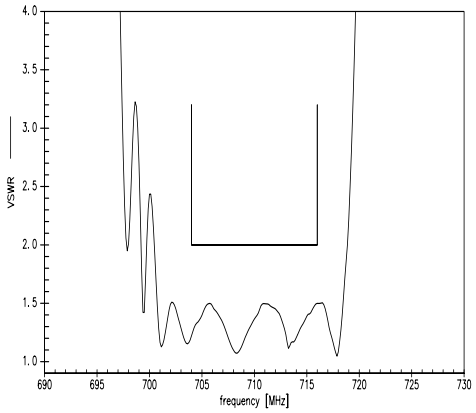


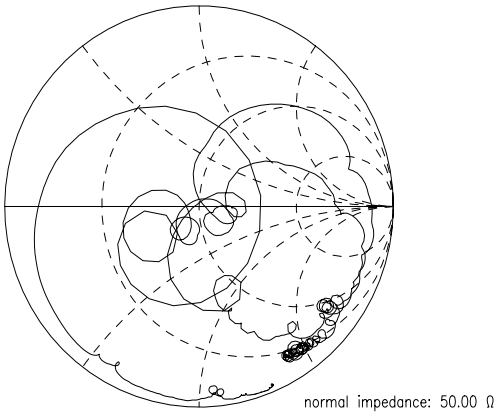
S11 VSWR





S22 VSWR





References

Type	B9493
Ordering code	B39711B9493M410
Marking and package	C61157-A8-A3
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B9493_NB.s2p B9493_WB.s2p See file header for port/pin assignment table
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.

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