EPCOS

SAW Components

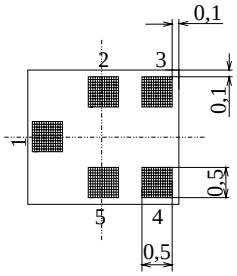
Data Sheet B7725, Pb-free

Data Sheet

Chip **S**ized **S**AW **P**ackage QCS5H

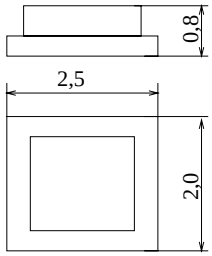
Features

- Low loss RF filter for GPS receivers
- Unbalanced to balanced operation
- Low amplitude ripple
- Impedance transformation from 50 Ω to 100 Ω
- Package for **S**urface **M**ounted **T**echnology **(SMT)**
- Pb-free



Terminals

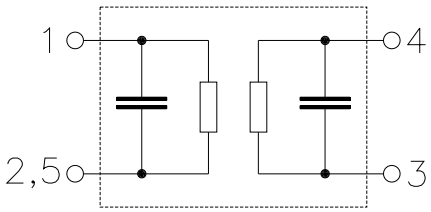
- Ni, gold-plated



Dimensions 2,0x2,5 mm², approx. weight 0,015 g

Pin configuration

1	Input, unbalanced
3, 4	Output, balanced
2, 5	Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B7725	B39162-B7725-K910	C61157-A7-A139	F61074-V8189-Z000

Electrostatic **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T	– 40/+ 85	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	3	V	
ESD voltage	V^*_{ESD}	50*	V	machine model, 10 pulses
Source power	P_s	10	dBm	source impedance 50 Ω, load impedance 100 Ω

* acc. to JESD22-A115A (Machine Model), 10 negative & 10 positive pulses

Data Sheet

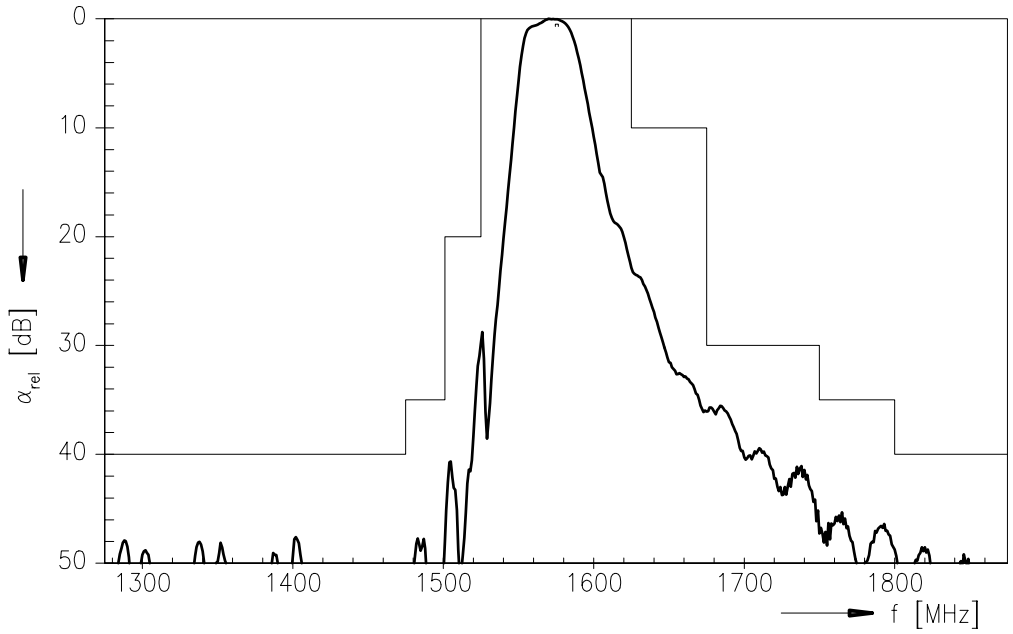
Characteristics

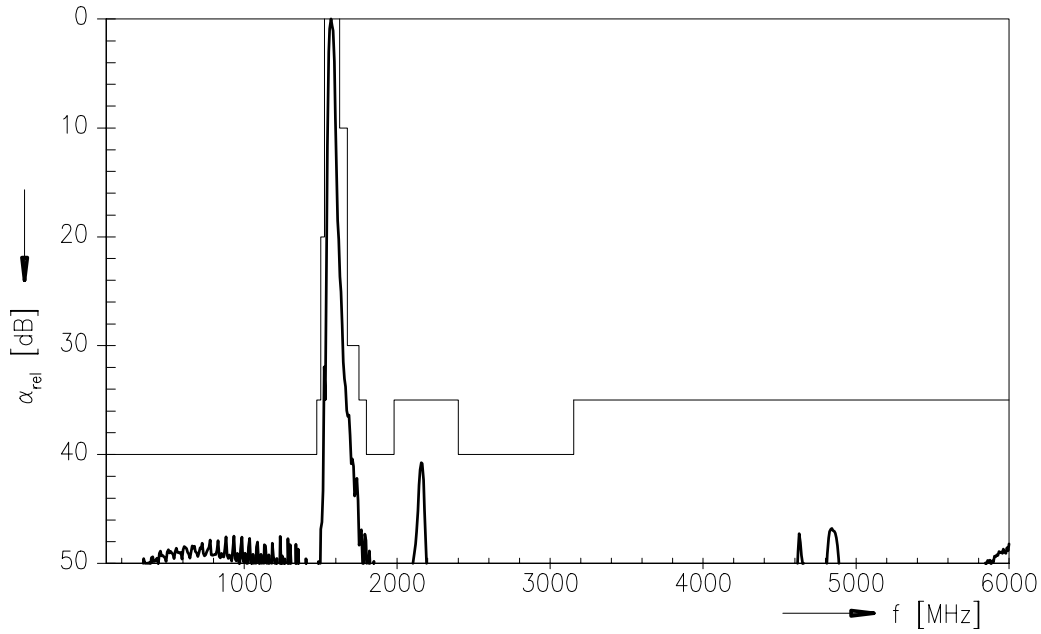
Operating temperature range: T_A = -30 ... +85 °C
Terminating source impedance: Z_S = 50 Ω unbal.
Terminating load impedance: Z_L = 100 Ω bal.

		min.	typ.	max.	
Nominal frequency	f_N	—	1575,42	—	MHz
Maximum insertion attenuation	α_{max}				
1574,42MHz ... 1576,42 MHz		—	1,3	1,8	dB
1574,42MHz ... 1576,42 MHz		—	1,3	1,7*)	dB
Amplitude ripple in passband (p-p)	$\Delta\alpha$				
1574,42MHz ... 1576,42 MHz		—	0,1	0,5	dB
Phase linearity deviation	$\Delta\phi$				
1574,42MHz ... 1576,42 MHz		—	0,05	1,0	°rms
Output phase balance ($\phi(S_{31})-\phi(S_{21})+180°$)					
1574,42MHz ... 1576,42 MHz		-15	7	15	°
Output amplitude balance ($\lvert S_{31}/S_{21}\rvert$)					
1574,42MHz ... 1576,42 MHz		-1,5	0,2	1,5	dB
Relative attenuation (relative to att. at f_N)	α_{rel}				
100,0MHz ... 1475,0 MHz		40	48	—	dB
1475,0 MHz ... 1501,0 MHz		35	40	—	dB
1501,0 MHz ... 1525,0 MHz		20	28	—	dB
1625,0 MHz ... 1675,0 MHz		10	22	—	dB
1675,0 MHz ... 1750,0 MHz		30	35	—	dB
1750,0 MHz ... 1800,0 MHz		35	42	—	dB
1800,0 MHz ... 1980,0 MHz		40	48	—	dB
1980,0 MHz ... 2400,0 MHz		35	41	—	dB
2400,0 MHz ... 3155,0 MHz		40	50	—	dB
3155,0 MHz ... 6000,0 MHz		35	46	—	dB
824,0MHz ... 894,0 MHz		40	48	—	dB
1850,0 MHz ... 1910,0 MHz		40	50	—	dB
1920,0 MHz ... 1980,0 MHz		40	51	—	dB
VSWR					
1574,42MHz ... 1576,42 MHz		—	1,4	1,8	

*) T_A = +25 °C

Transfer function





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