SAW Components

Preliminary Data LJ93B

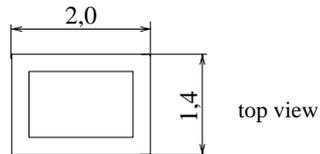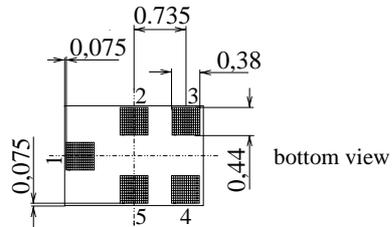**Low-Loss Filter for Mobile Communication**   **938,0 MHz**

Preliminary Data

Features

- Low-loss RF filter for iDEN phone, receive path
- Low amplitude ripple
- Usable passband 6,0 MHz
- No matching network required for operation at 50 Ω
- Ceramic package for **S**urface **M**ounted **T**echnology (**SMT**)
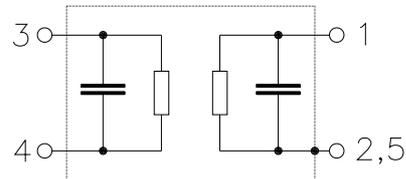
Chip sized SAW package QCS5C

bottom view

side view

top view

Dimensions in mm, approx. weight 0,009 g

Terminals

- Ni, gold-plated

Pin configuration

1	Input, unbalanced
4	Output, unbalanced
2, 5	Case ground
3	To be grounded

Type	Ordering code	Marking and Package according to	Packing according to
LJ93B		C61157-A7-A111	F61074-V8151-Z000

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

Maximum ratings

Operable temperature range	T	– 30 / + 85	˚C	
Storage temperature range	T_{stg}	– 40 / + 85	˚C	
DC voltage	V_{DC}	0	V	
Source power (cw)	P_s	0	dBm	source impedance 50 Ω

SAW Components	LJ93B
Low-Loss Filter for Mobile Communication	**938,0 MHz**

Preliminary Data

Characteristics

Operating temperature range: T = +25 $\pm$ 2 $^{\circ}$C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

		min.	typ.	max.	
Nominal frequency	f_N	—	938,0	—	MHz
Maximum insertion attenuation	α_{max}				
935,0 ... 941,0 MHz		—	1,8	2,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
935,0 ... 941,0 MHz		—	0,2	1,0	dB
Group delay ripple (p-p)	$\Delta\tau$				
935,0 ... 941,0 MHz		—	5	50	ns
Return loss (Input and Output)					
935,0 ... 941,0 MHz		12,0	17,0	—	dB
Attenuation	α				
0,100... 896,000 MHz		27	53	—	dB
896,000... 902,000 MHz		37	45	—	dB
989,825... 995,825 MHz		27	62	—	dB
1044,650...1050,650 MHz		37	60	—	dB
1154,300...1160,300 MHz		47	56	—	dB
1160,300...3200,000 MHz		27	38	—	dB
Temperature coefficient of frequency	TC_f	—	– 36	—	ppm/K

EPCOS

Characteristics

Operating temperature range: T = -30 to +70 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

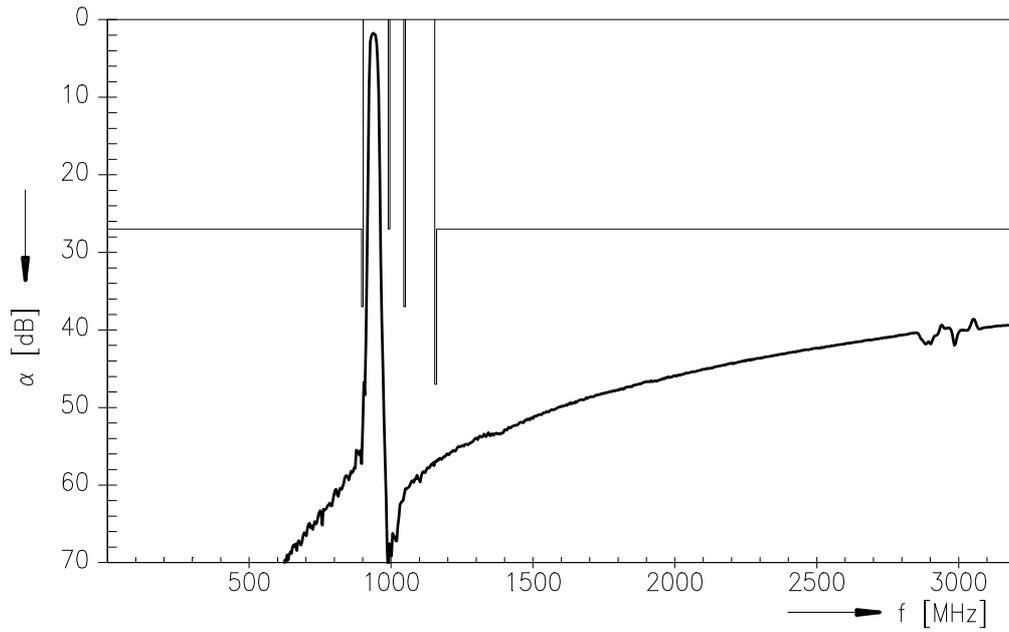|		min.	typ.	max.	
Nominal frequency	f_N	—	938,0	—	MHz
Maximum insertion attenuation	α_{max}				
935,0 ... 941,0 MHz		—	2,0	3,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
935,0 ... 941,0 MHz		—	0,3	1,0	dB
Group delay ripple (p-p)	$\Delta\tau$				
935,0 ... 941,0 MHz		—	10	60	ns
Return loss (Input and Output)					
935,0 ... 941,0 MHz		12,0	15,0	—	dB
Attenuation	α				
0,100... 896,000 MHz		27	53	—	dB
896,000... 902,000 MHz		37	45	—	dB
989,825... 995,825 MHz		27	62	—	dB
1044,650...1050,650 MHz		37	60	—	dB
1154,300...1160,300 MHz		47	56	—	dB
1160,300...3200,000 MHz		27	38	—	dB
Temperature coefficient of frequency	TC_f	—	– 36	—	ppm/K

Transfer function

Transfer function (pass band)

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

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