EPCOS

SAW Components

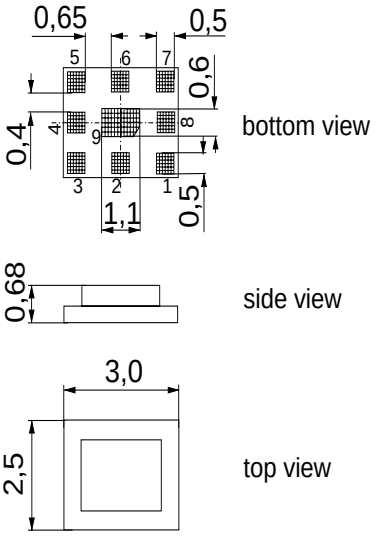
Data Sheet B7662

Data Sheet SMD

Chip **S**ized **S**AW **P**ackage **QCS9K**

Features

- Low-loss duplexer for Korean PCS mobile telephone systems
- Very small size and low height
- Package for **S**urface **M**ounted **T**echnology (**SMT**)



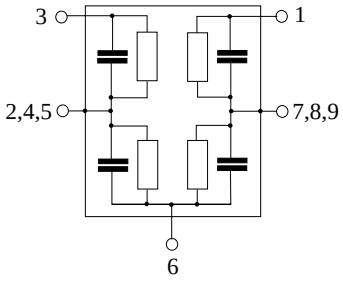
Dimensions in mm, approx. weight 0,028 g

Terminals

Ni, gold-plated

Pin configuration

1	TX Input
3	RX Output
6	Antenna
2, 4, 5	Ground
7, 8, 9	Ground



Type	Ordering code	Marking and Package according to	Packing according to
B7662	B39192-B7662-P610	C61157-A3-A15	F61074-V8156-Z000

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

Maximum ratings

Operating temperature range	T	– 30/+ 85	°C	
Storage temperature range	T_{stg}	– 40/+ 85	°C	
DC voltage	V_{DC}	5	V	
ESD voltage	V_{ESD}	50[1)]	V	machine model, 10 pulses
Input power max.	P_{IN}			source and load impedance 50 Ω
1750,0 ... 1780,0 MHz		29	dBm	} continuous wave
elsewhere		10	dBm	

1) -acc. toJESD22-115A (Machine Model), 10 negatie & 10 positive pulses

Characteristics

Operating temperature range T = 25 ± 2°C
ANT terminating impedance Z_{ANT} = 50 Ω
RX terminating impedance Z_{RX} = 50 Ω
TX terminating impedance Z_{TX} = 50 Ω

Characteristics TX - ANT		min.	typ.	max.	
Center frequency	f_c	—	1765,0	—	MHz
Maximum insertion attenuation	α_{max}				
1750,00 ... 1780,00 MHz		—	1,6	1,8	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1750,00 ... 1780,00 MHz		—	0,4	0,7	dB
Return loss					
1750,00 ... 1780,00 MHz		9,0	11	—	dB
Attenuation	α				
1840,00 ... 1870,00 MHz		40	49	—	dB
2000,00 ... 3000,00 MHz		25	30	—	dB

Characteristics ANT - RX		min.	typ.	max.	
Center frequency	f_c	—	1855,0	—	MHz
Maximum insertion attenuation	α_{max}				
1840,00 ... 1870,00 MHz		—	1,9	2,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1840,00 ... 1870,00 MHz		—	0,2	0,7	dB
Return loss					
1840,00 ... 1870,00 MHz		9,0	12	—	dB
Attenuation	α				
1750,00 ... 1780,00 MHz		52	62	—	dB
2000,00 ... 3000,00 MHz		35	55	—	dB

Characteristics TX - RX		min.	typ.	max.	
Isolation between TX and RX path	α				
1750,00 ... 1780,00 MHz		60	64	—	dB
1840,00 ... 1870,00 MHz		45	50	—	dB

Characteristics

Operating temperature range T = -30 to 85 °C
ANT terminating impedance Z_{ANT} = 50 Ω
RX terminating impedance Z_{RX} = 50 Ω
TX terminating impedance Z_{TX} = 50 Ω

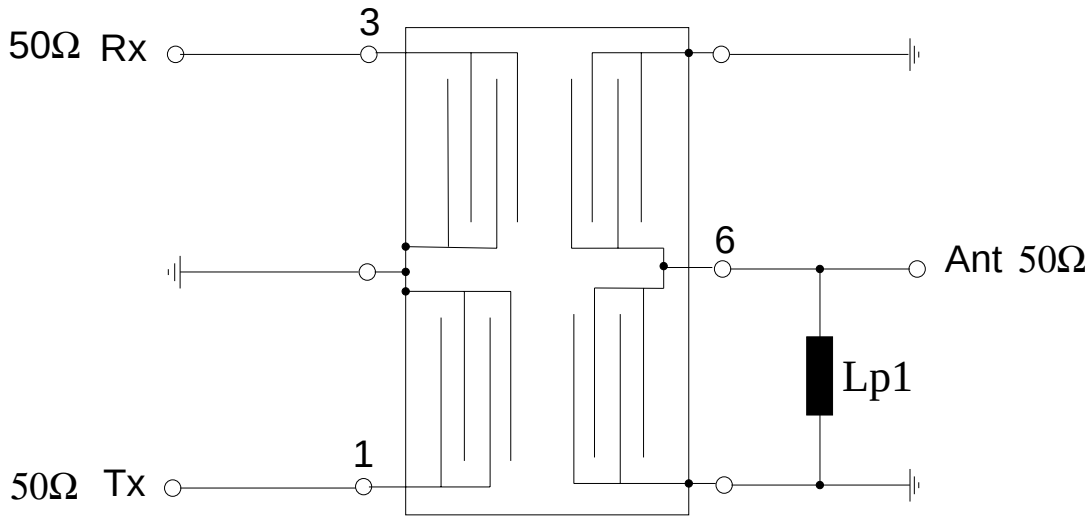
Characteristics TX - ANT		min.	typ.	max.	
Center frequency	f_c	—	1765,0	—	MHz
Maximum insertion attenuation	α_{max}				
1750,00 ... 1780,00 MHz		—	1,6	2,0	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1750,00 ... 1780,00 MHz		—	0,4	0,9	dB
Return loss					
1750,00 ... 1780,00 MHz		9,0	11	—	dB
Attenuation	α				
1840,00 ... 1870,00 MHz		40	47	—	dB
2000,00 ... 3000,00 MHz		25	30	—	dB

Characteristics ANT - RX		min.	typ.	max.	
Center frequency	f_c	—	1855,0	—	MHz
Maximum insertion attenuation	α_{max}				
1840,00 ... 1870,00 MHz		—	2,1	2,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1840,00 ... 1870,00 MHz		—	0,5	0,9	dB
Return loss					
1840,00 ... 1870,00 MHz		9,0	12	—	dB
Attenuation	α				
1750,00 ... 1780,00 MHz		52	60	—	dB
2000,00 ... 3000,00 MHz		35	55	—	dB

Characteristics TX - RX		min.	typ.	max.	
Isolation between TX and RX path	α				
1750,00 ... 1780,00 MHz		58	63	—	dB
1840,00 ... 1870,00 MHz		43	48	—	dB

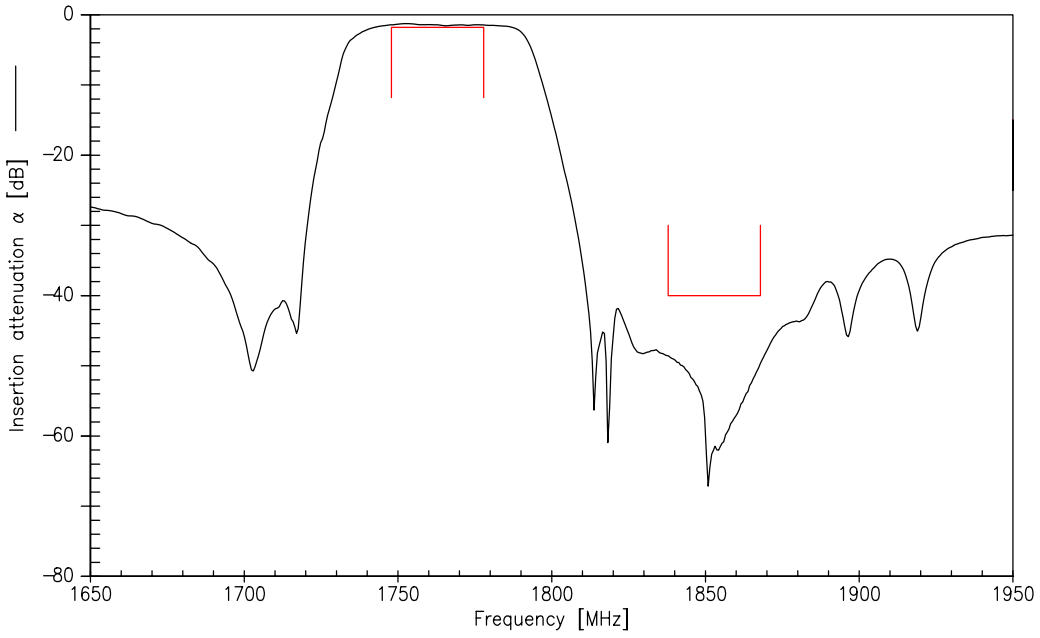
Matching circuit to terminating impedances

(Element values depend upon PCB layout)

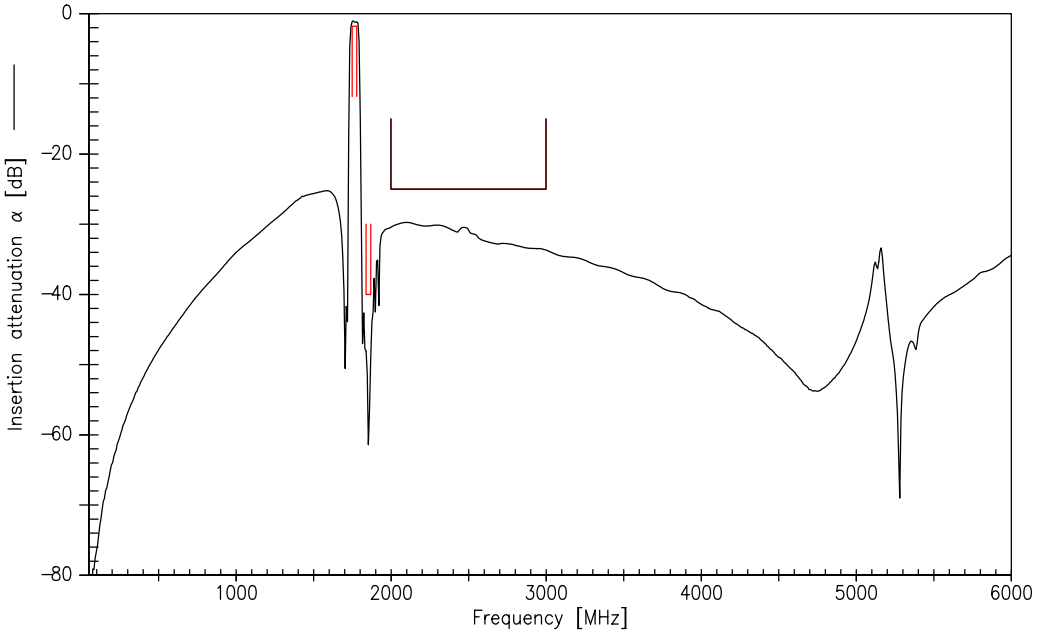


L_{p1} = 3.3 nH

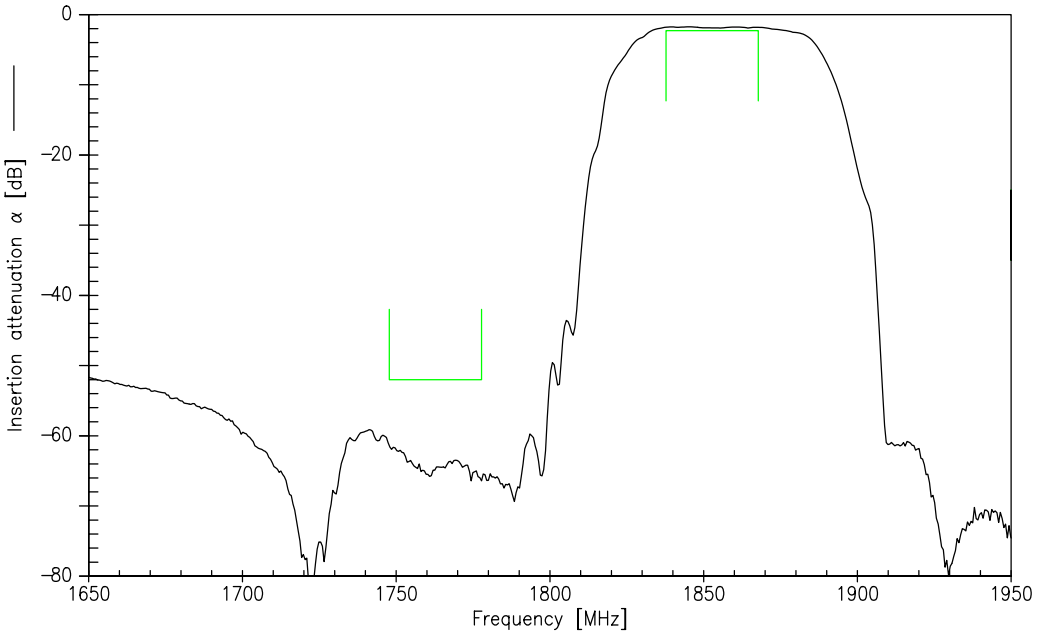
Frequency Response TX-ANT



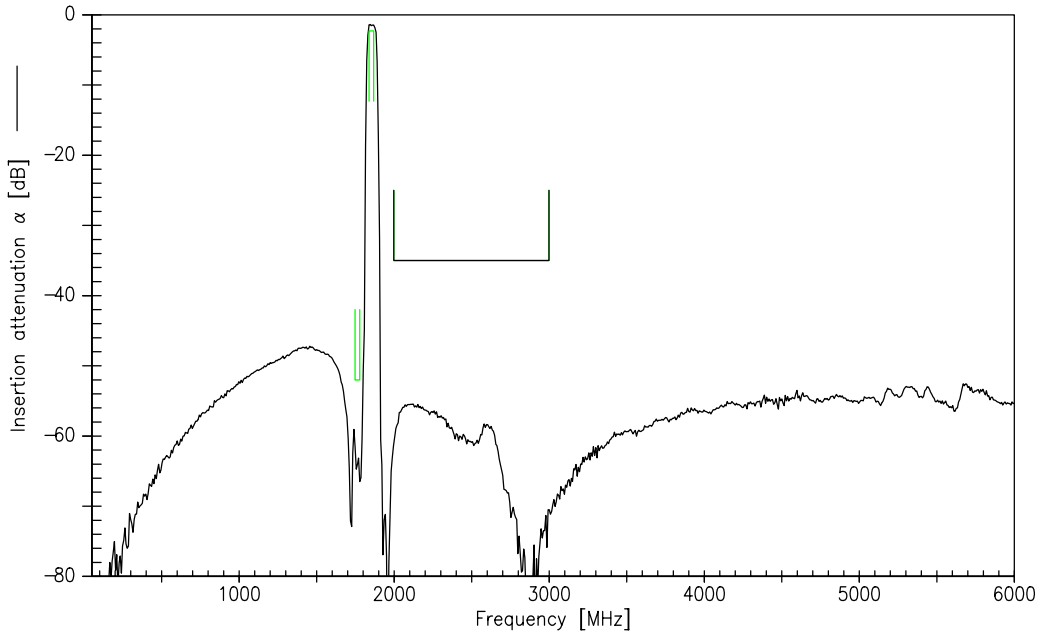
Frequency Response TX-ANT (wideband)



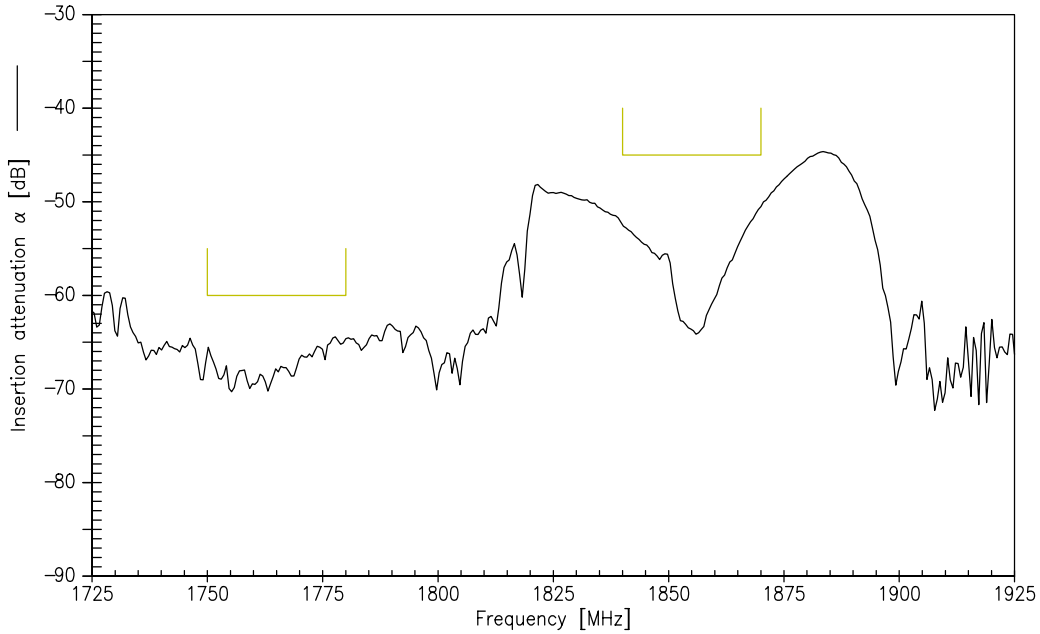
Frequency Response RX-ANT



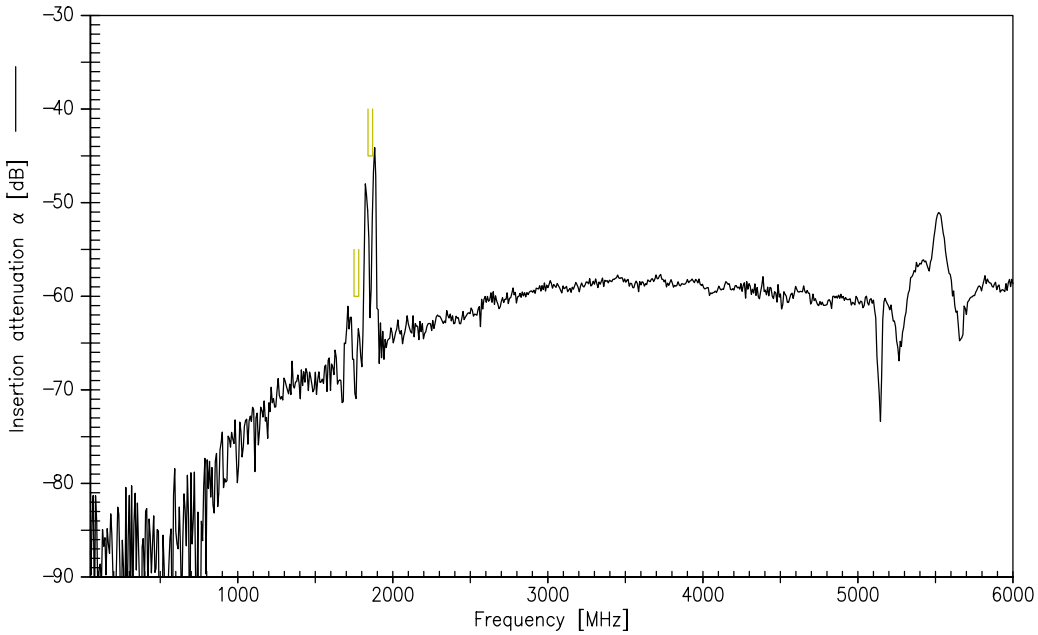
Frequency Response RX-ANT (wideband)



Frequency Response TX-RX



Frequency Response TX-RX (wideband)



Published by EPCOS AG
Surface Acoustic Wave Components Division, SAW MC WT
P.O. Box 80 17 09, 81617 Munich, GERMANY

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