EPCOS

SAW Components

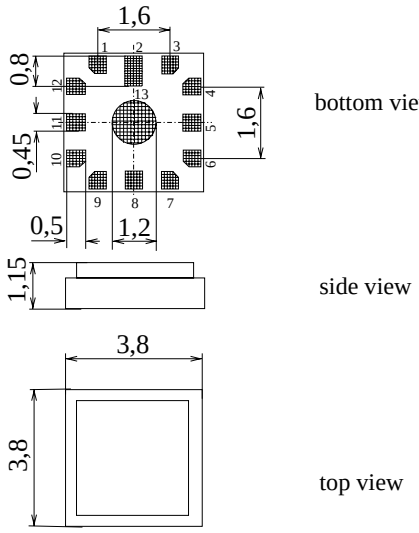
Data Sheet B7631

Data Sheet

Chip sized SAW package **QCS12F**

Features

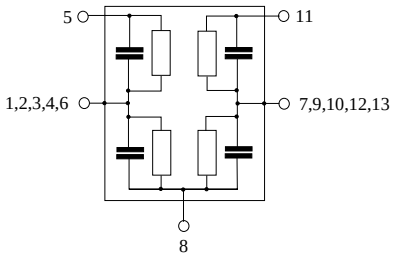
- Low-loss duplexer for Korean PCS mobile telephone systems
- 50 Ω ports by integrated matching network
- Multifunctional ceramic base material for **S**urface **M**ounted **T**echnology (**SMT**)
- Small size and low height



Dimensions in mm, approx. weight 0,08 g

Pin configuration

11	TX Input
5	RX Output
8	Antenna
1, 2, 3, 4, 6	Ground
7, 9, 10, 12, 13	Ground



Type	Ordering code	Marking and Package according to	Packing according to
B7631	B39192-B7631-D910	C61157-A3-A6	F61074-V8194-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	
Input power max.	P_{IN}			source and load impedance 50 Ω
1750,0 ... 1780,0 MHz		28	dBm	} continuous wave
elsewhere		10	dBm	

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	—	1765,00	—	MHz
Maximum insertion attenuation	α_{max}				
1750,00 ... 1780,00 MHz		—	2,0	2,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1750,00 ... 1780,00 MHz		—	0,6	1,2	dB
Return loss					
1750,00 ... 1780,00 MHz		8,0	10,0	—	dB
Attenuation	α				
1840,00 ... 1870,00 MHz		40	43	—	dB
2000,00 ... 3000,00 MHz		25	32	—	dB

Characteristics ANT - RX		min.	typ.	max.	
Center frequency	f_c	—	1855,00	—	MHz
Maximum insertion attenuation	α_{max}				
1840,00 ... 1870,00 MHz		—	2,6	3,3	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1840,00 ... 1870,00 MHz		—	0,4	1,0	dB
Return loss					
1840,00 ... 1870,00 MHz		9,0	10,0	—	dB
Attenuation	α				
1750,00 ... 1780,00 MHz		52	56	—	dB
2000,00 ... 3000,00 MHz		35	43	—	dB

Characteristics TX - RX		min.	typ.	max.	
Isolation between TX and RX path	α				
1750,00 ... 1780,00 MHz		55	59	—	dB
1840,00 ... 1870,00 MHz		43	45	—	dB

Characteristics

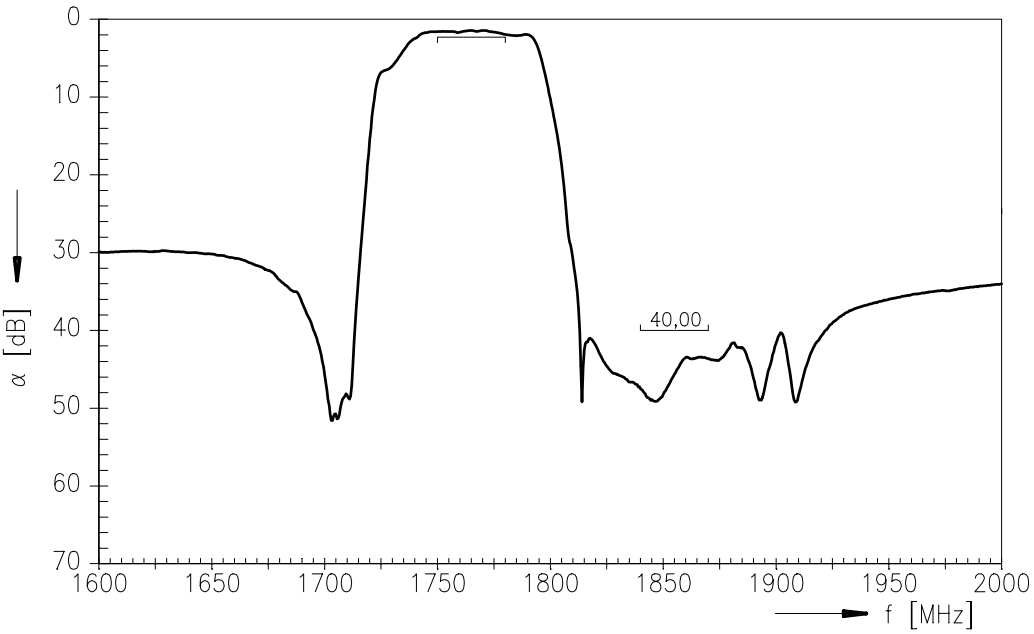
Operating temperature range T = -30 to 85˚C
ANT terminating impedance Z_{ANT} = 50 Ω
RX terminating impedance Z_{RX} = 50 Ω
TX terminating impedance Z_{TX} = 50 Ω

Characteristics TX - ANT		min.	typ.	max.	
Center frequency	f_c	—	1765,00	—	MHz
Maximum insertion attenuation	α_{max}				
1750,00 ... 1780,00 MHz		—	2,1	2,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1750,00 ... 1780,00 MHz		—	0,8	1,5	dB
Return loss					
1750,00 ... 1780,00 MHz		8,0	10,0	—	dB
Attenuation	α				
1840,00 ... 1870,00 MHz		40	43	—	dB
2000,00 ... 3000,00 MHz		25	32	—	dB

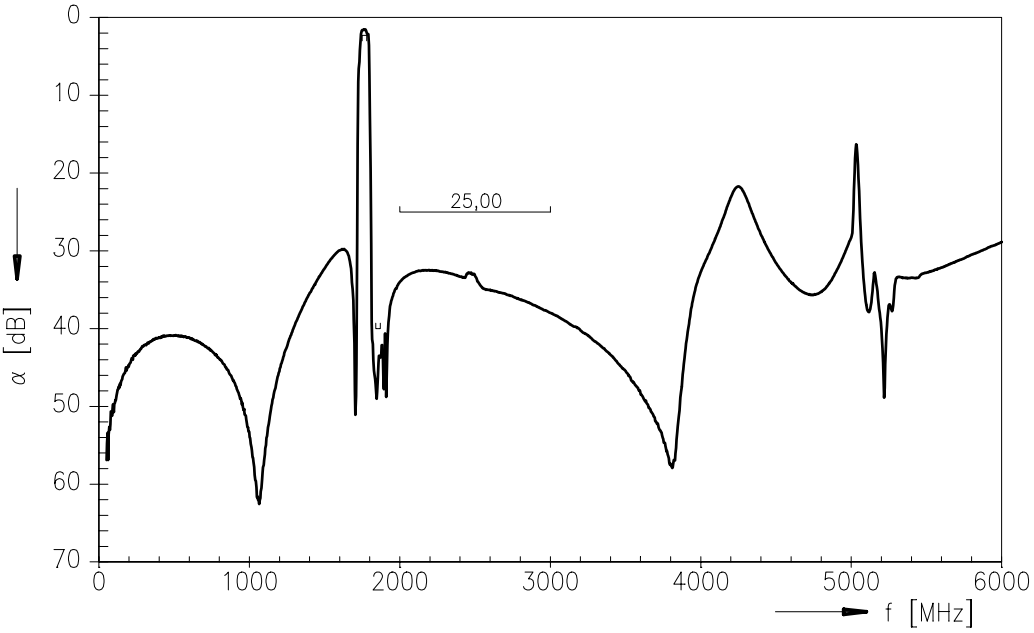
Characteristics ANT - RX		min.	typ.	max.	
Center frequency	f_c	—	1855,00	—	MHz
Maximum insertion attenuation	α_{max}				
1840,00 ... 1870,00 MHz		—	2,7	3,5	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1840,00 ... 1870,00 MHz		—	0,5	1,3	dB
Return loss					
1840,00 ... 1870,00 MHz		9,0	10,0	—	dB
Attenuation	α				
1750,00 ... 1780,00 MHz		52	55	—	dB
2000,00 ... 3000,00 MHz		35	43	—	dB

Characteristics TX - RX		min.	typ.	max.	
Isolation between TX and RX path	α				
1750,00 ... 1780,00 MHz		54	55	—	dB
1840,00 ... 1870,00 MHz		42	44	—	dB

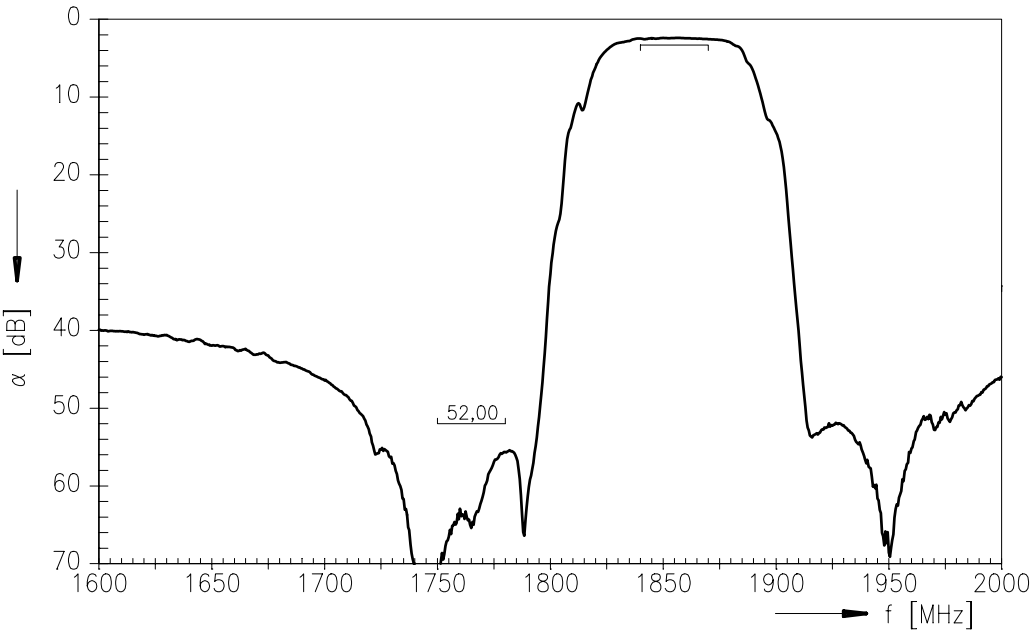
Frequency Response TX - ANT



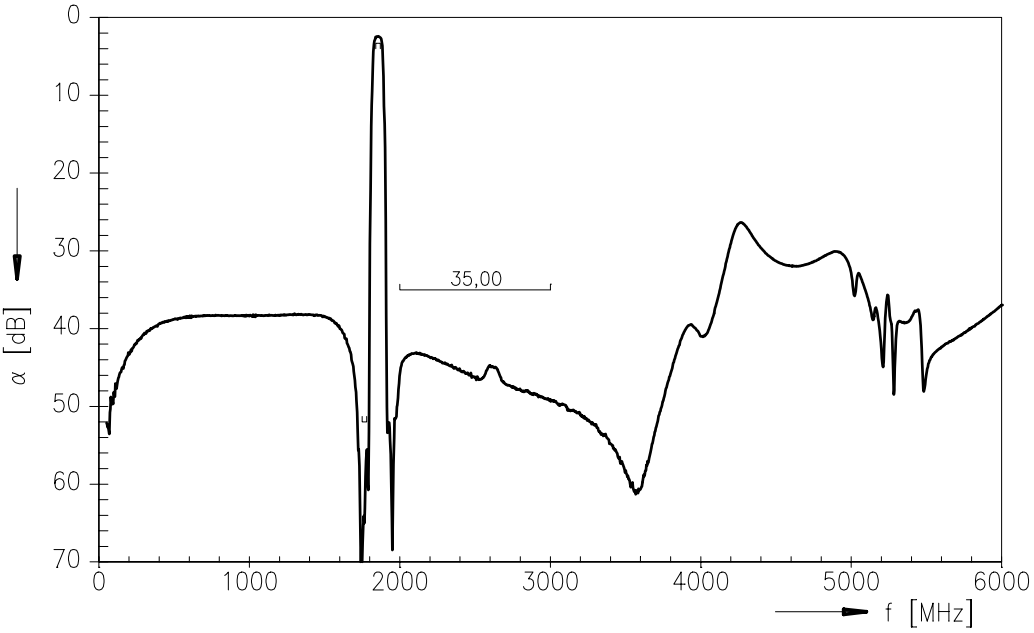
Frequency Response TX - ANT (wideband)



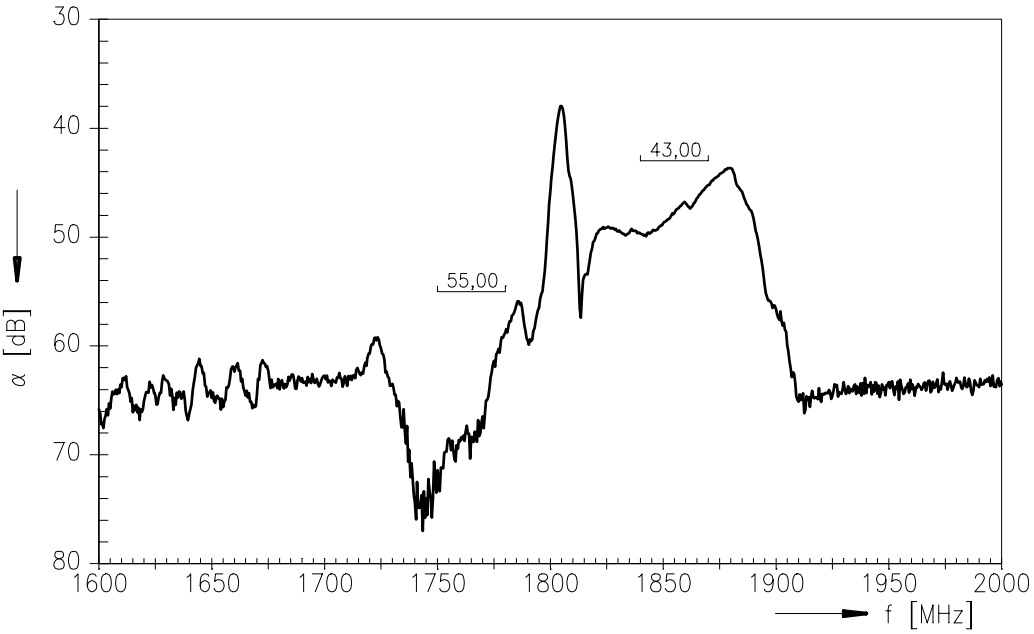
Frequency Response ANT - RX



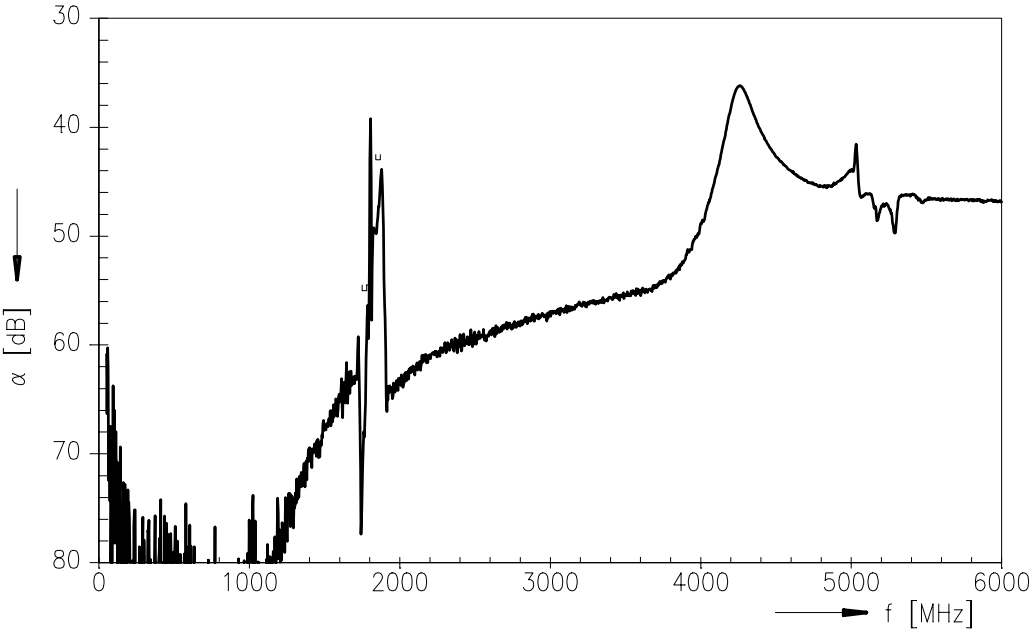
Frequency Response ANT - RX (wideband)



Frequency Response TX - RX



Frequency Response TX - RX (wideband)



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