2in1 RF Filters for Cellular Phones

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39192B7758E311	B39192B9014E910	2007-12-01	2007-02-28	2007-05-31

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EPCOS

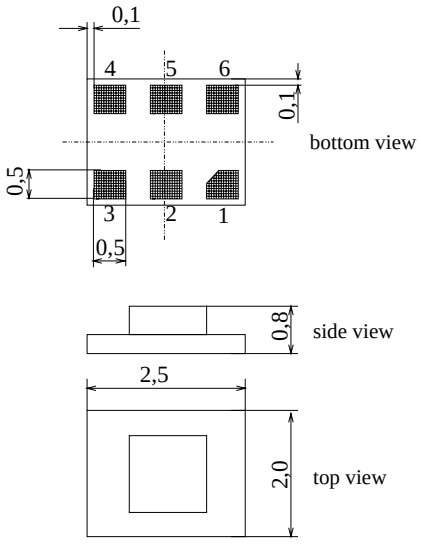
SAW Components

Data Sheet B7758

Chip **S**ized **S**AW **P**ackage **DCS6N**

Features

- Low-loss 2-in-1 RF filter for mobile telephone PCS systems, transmit path
- Device with two integrated Tx-filter
- Usable passband of Tx-filter 1 35 MHz
- Usable passband of Tx-filter 2 35 MHz
- No matching network required for operation at 50 Ω
- Package for **S**urface **M**ounted **T**echnology (**SMT**)



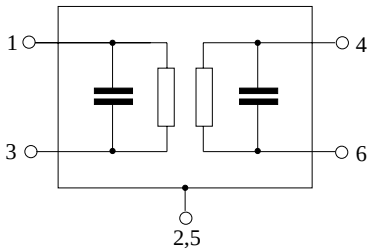
Dimensions in mm, approx. weight 0,015 g

Terminals

- Ni, gold-plated

Pin configuration

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



Type	Ordering code	Marking and Package according to	Packing according to
B7758	B39192-B7758-E311	C61157-Z7-C179	F61074-V8153-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}	3	V	
Input power max. 1850...1910 MHz	P_{IN}	12	dBm	source and load impedance 50 Ω CW signal

Characteristics of Tx-filter 1

Operating temperature range: T = -30 to +85 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

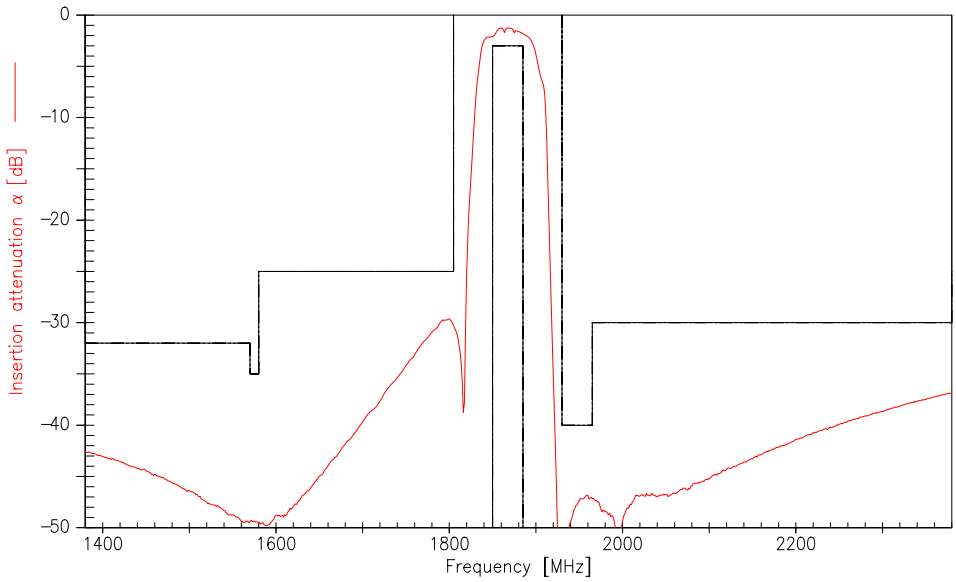
				min.	typ.	max.	
Center frequency			f_c	—	1865,0	—	MHz
Maximum insertion attenuation			α_{max}				
1850,0	...1885,0	MHz		—	2,4	3,0	dB
1850,0	...1880,0	MHz		—	2,4	2,7	dB
Amplitude ripple (p-p)			$\Delta\alpha$				
1850,0	...1885,0	MHz		—	1,0	1,6	dB
1850,0	...1880,0	MHz		—	1,0	1,3	dB
Input return loss							
1850,0	...1885,0	MHz		12,0	13,5	—	dB
						—	dB
Output return loss							
1850,0	...1885,0	MHz		12,0	13,5	—	dB
						—	dB
Attenuation			α				
10,0	...1570,0	MHz		32,0	40,0	—	dB
1570,0	...1580,0	MHz		35,0	48,0	—	dB
1580,0	...1805,0	MHz		25,0	29,0	—	dB
1930,0	...1965,0	MHz		40,0	48,0	—	dB
1965,0	...2500,0	MHz		30,0	36,0	—	dB
2500,0	...3000,0	MHz		25,0	31,0	—	dB
3000,0	...3700,0	MHz		20,0	25,0	—	dB
3700,0	...3760,0	MHz		20,0	25,0	—	dB
3760,0	...6000,0	MHz		15,0	20,0	—	dB
Rx band suppression							
1930,0	...1965,0	MHz		40,0	48,0	—	dB
GPS band suppression							
1570,0	...1580,0	MHz		35,0	48,0	—	dB
LO suppression							
2113,0	...2174,0	MHz		37,0	42,0	—	dB

Characteristics of Tx-filter 2

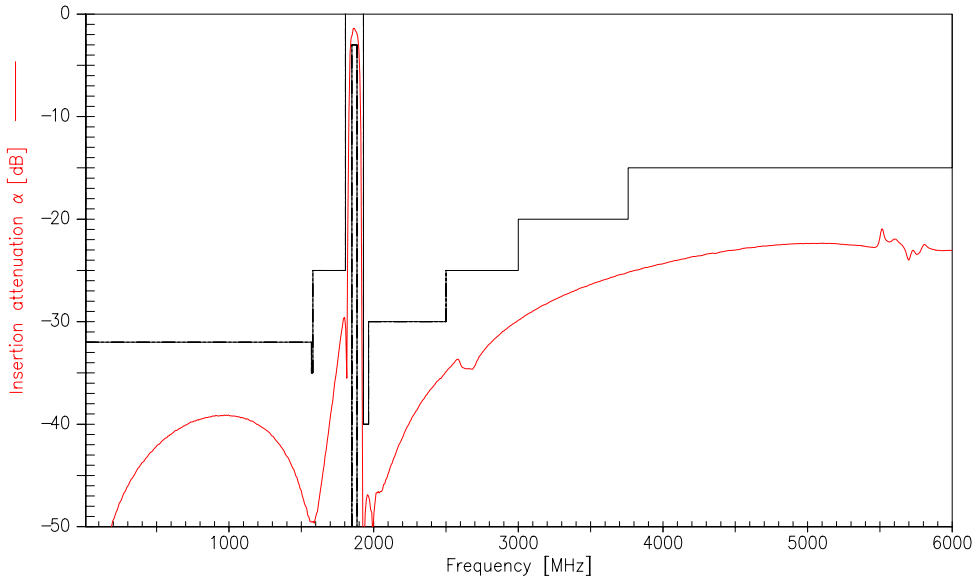
Operating temperature range: T = -30 to +85 °C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω

			min.	typ.	max.	
Center frequency	f_c		—	1895,0	—	MHz
Maximum insertion attenuation	α_{max}					
1875,0 ...1910,0	MHz		—	2,6	3,0	dB
1880,0 ...1910,0	MHz		—	2,4	2,7	dB
Amplitude ripple (p-p)	$\Delta\alpha$					
1875,0 ...1910,0	MHz		—	1,2	1,6	dB
1880,0 ...1910,0	MHz		—	1,0	1,3	
Input return loss						
1875,0 ...1910,0	MHz		12,0	13,5	—	dB
Output return loss						
1875,0 ...1910,0	MHz		12,0	13,5	—	dB
Attenuation	α					
10,0 ...1570,0	MHz		32,0	40,0	—	dB
1570,0 ...1580,0	MHz		35,0	48,0	—	dB
1580,0 ...1830,0	MHz		25,0	30,0	—	dB
1955,0 ...1990,0	MHz		40,0	48,0	—	dB
1990,0 ...2500,0	MHz		30,0	36,0	—	dB
2500,0 ...3000,0	MHz		25,0	30,0	—	dB
3000,0 ...3760,0	MHz		20,0	25,0	—	dB
3760,0 ...3820,0	MHz		20,0	25,0	—	dB
3820,0 ...6000,0	MHz		14,0	19,0	—	dB
Rx band suppression						
1955,0 ...1990,0	MHz		40,0	48,0	—	dB
GPS band suppression						
1570,0 ...1580,0	MHz		35,0	48,0	—	dB
LO suppression						
2113,0 ...2174,0	MHz		37,0	42,0	—	dB

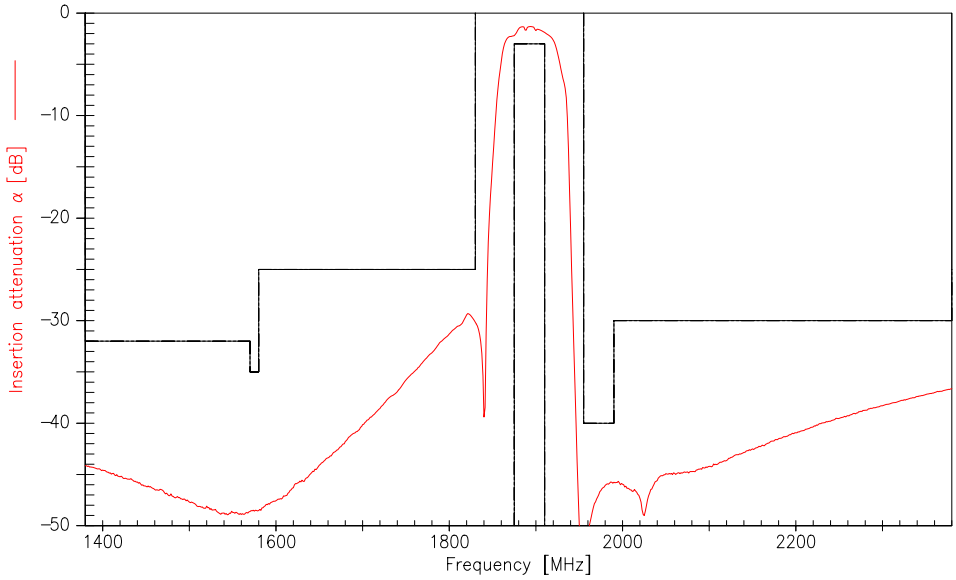
Transfer function Tx-filter 1



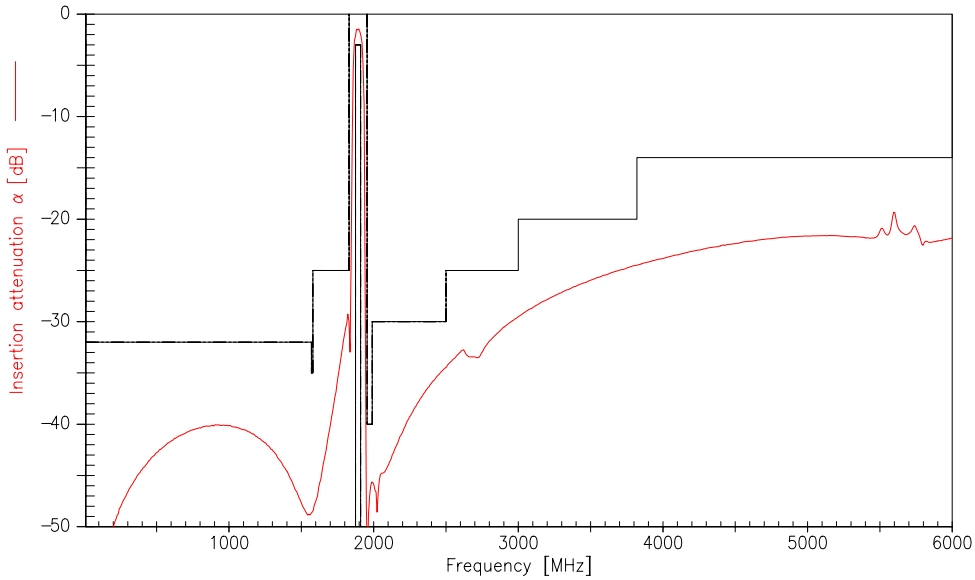
Transfer function Tx-filter 1(wideband)



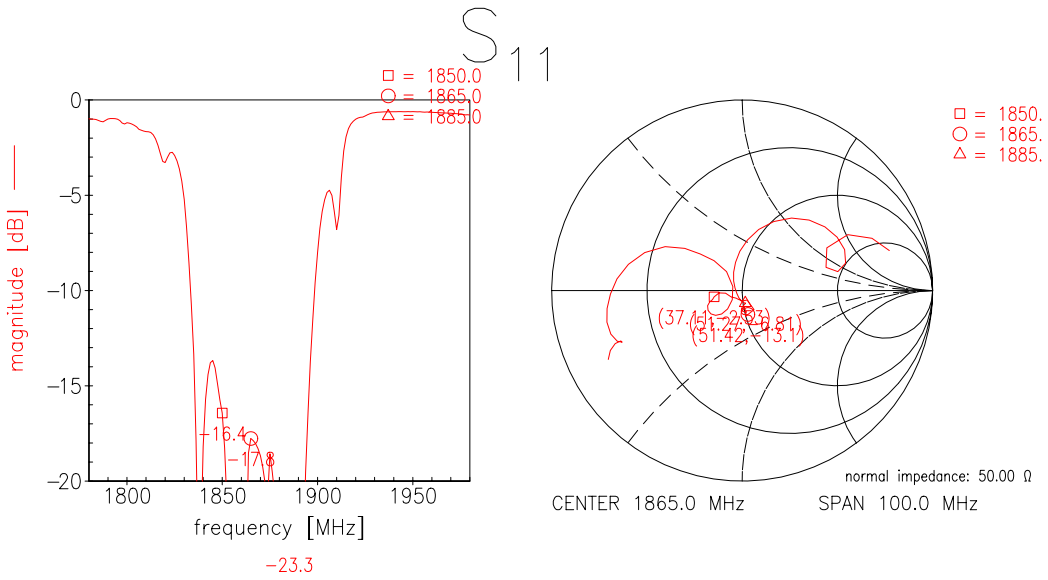
Transfer function Tx-filter 2

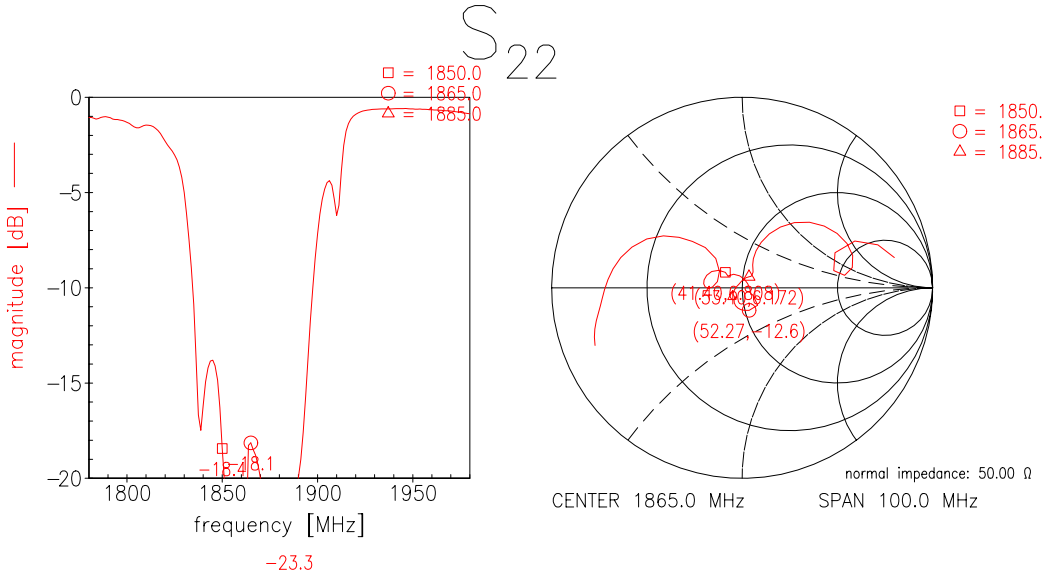


Transfer function Tx-filter 2(wideband)

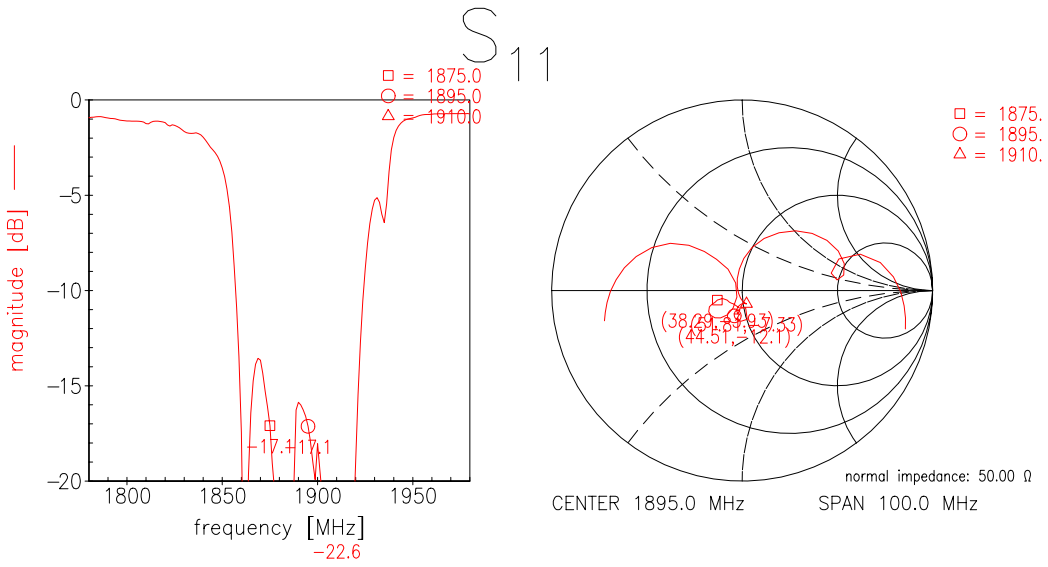


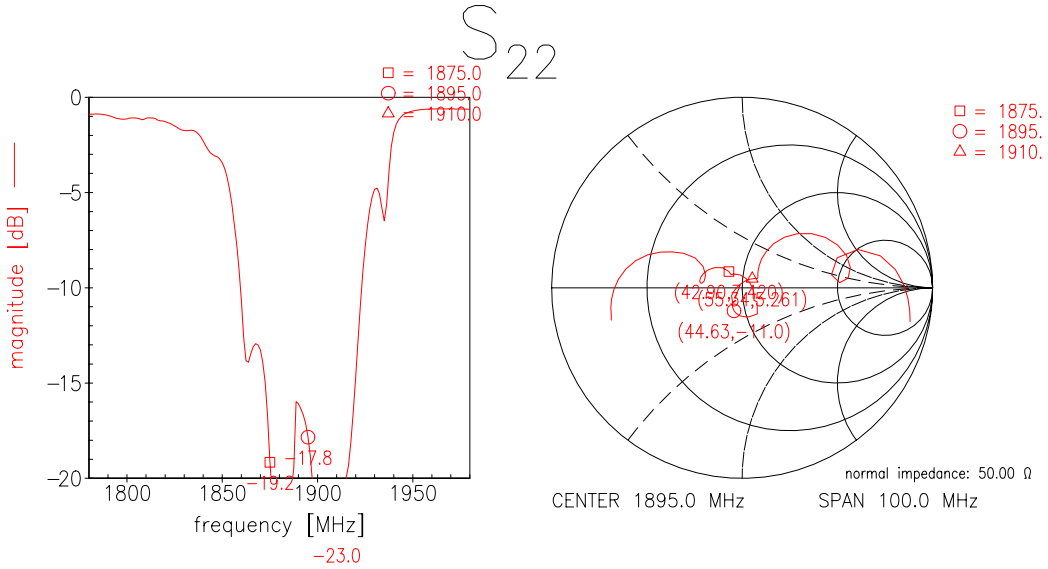
Reflection functions of Tx-filter 1





Reflection functions of Tx-filter 2





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