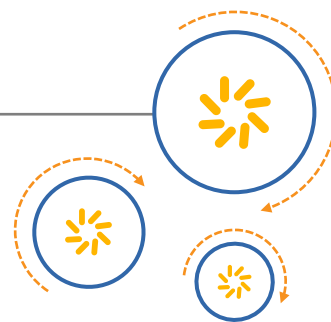




RF360 Europe GmbH

A Qualcomm – TDK Joint Venture



SAW Components

SAW filter for base station

TD-LTE Band F

Series/type: B5305
Ordering code: B39192B5305U410

Date: October 21, 2013
Version: 2.0

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SAW Components

SAW filter for base station

TD-LTE Band F

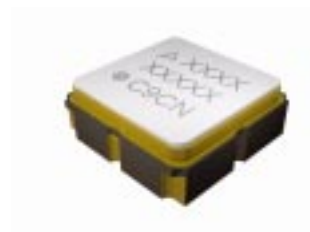
Series/type:	B5305
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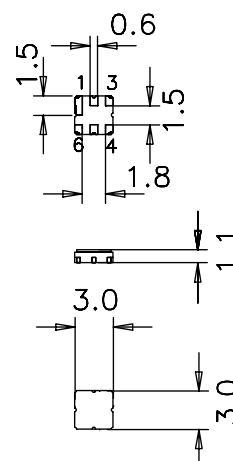
Application

- Low-loss RF filter for TD-LTE Band F base station
- Usable passband 40 MHz
- Unbalanced to unbalanced operation



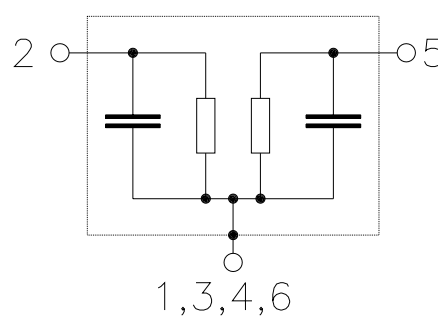
Features

- Package size 3.0 x3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- Ceramic Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitivity Level 1**
- Filter surface passivated



Pin configuration

- 2 Input
- 5 Output
- 1,3,4,6 Case grounded



SAW Components
B5305
SAW filter for base station
1900.00 MHz
Data sheet

Characteristics

 Temperature range for specification: $T = -40\text{ }^{\circ}\text{C}$ to $+95\text{ }^{\circ}\text{C}$

 Terminating source impedance: $Z_S = 50\ \Omega$

 Terminating load impedance: $Z_L = 50\ \Omega$

				min.	typ. @ 25 °C	max.	
Center frequency	f_C			—	1900.00	—	MHz
1880.0 ... 1920.0	MHz						
Maximum insertion attenuation	$\alpha_{\max}$			—	1.9	3.0	dB
1880.0 ... 1920.0	MHz						
Amplitude ripple (p-p)	$\Delta\alpha$			—	0.8	1.3	dB
1880.0 ... 1920.0	MHz						
Group delay ripple (p-p)				—	7	30	ns
1880.0 ... 1920.0	MHz						
VSWR				—	1.5	2.0	
1880.0 ... 1920.0	MHz						
Absolute Attenuation	α_{abs}						
50.0 ... 960.0	MHz			30	37	—	dB
960.0 ... 1805.0	MHz			30	37	—	dB
1805.0 ... 1830.0	MHz			30	51	—	dB
1830.0 ... 1850.0	MHz			30	42	—	dB
1950.0 ... 2010.0	MHz			15	27	—	dB
2010.0 ... 2025.0	MHz			48	55	—	dB
2110.0 ... 2170.0	MHz			35	48	—	dB
2300.0 ... 2400.0	MHz			35	51	—	dB
2400.0 ... 3000.0	MHz			28	43	—	dB

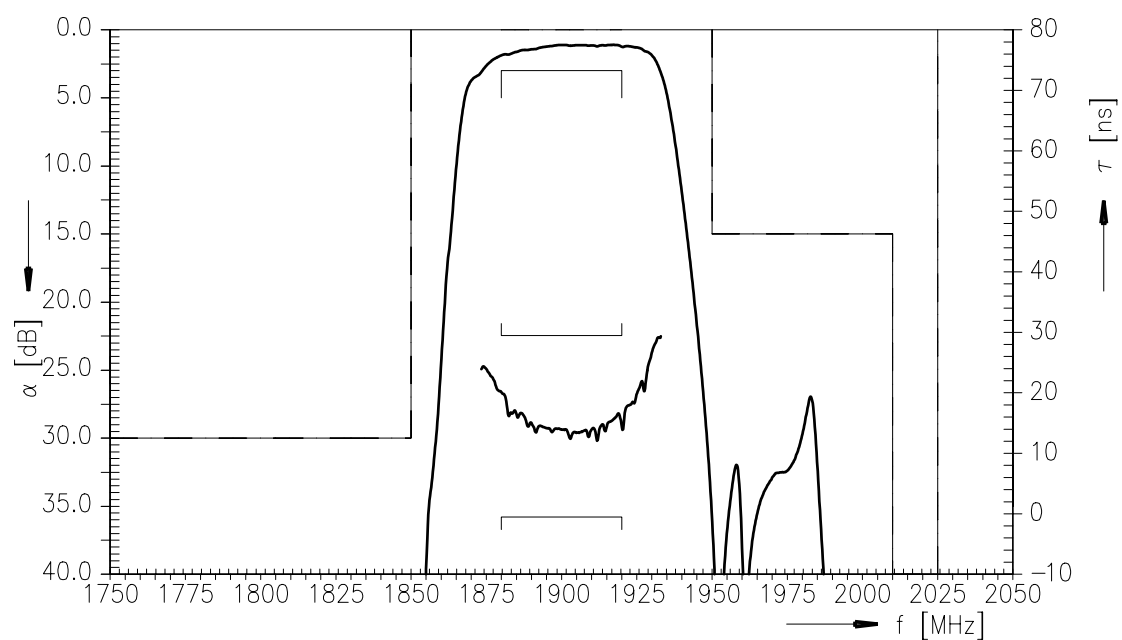
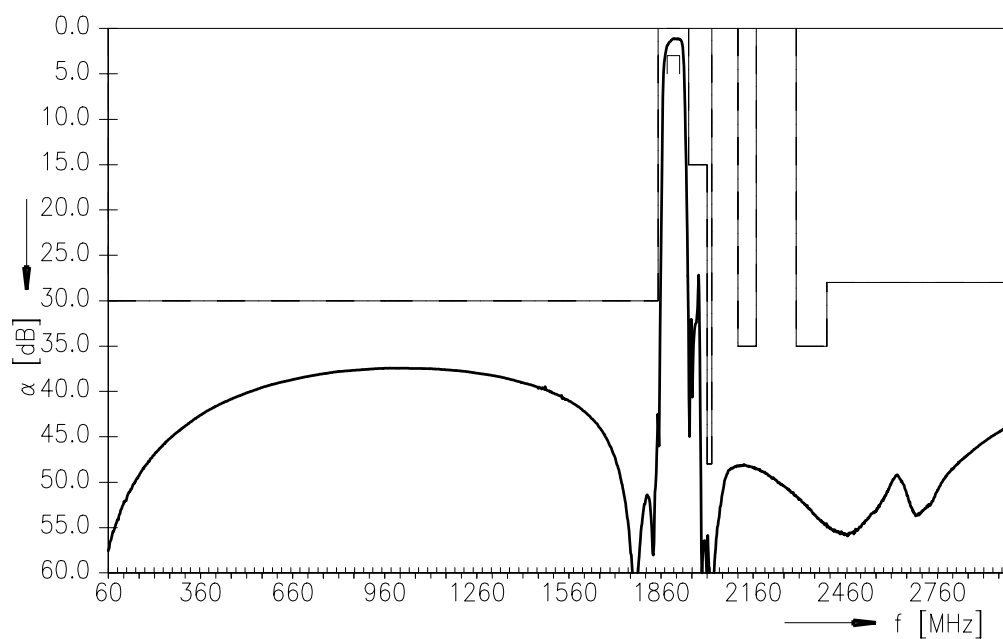
SAW Components
B5305
SAW filter for base station
1900.00 MHz

Data sheet


Maximum ratings

Operable temperature range	T	−45/+125	°C	
Storage temperature range	T _{stg}	−45/+125	°C	
DC voltage	V _{DC}	6	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 10 pulses
Input power at				
1880.0...1920.0MHz	P _{IN}	15	dBm	CW, 100000 hrs @95deg
		23	dBm	CW, 24hrs @95deg

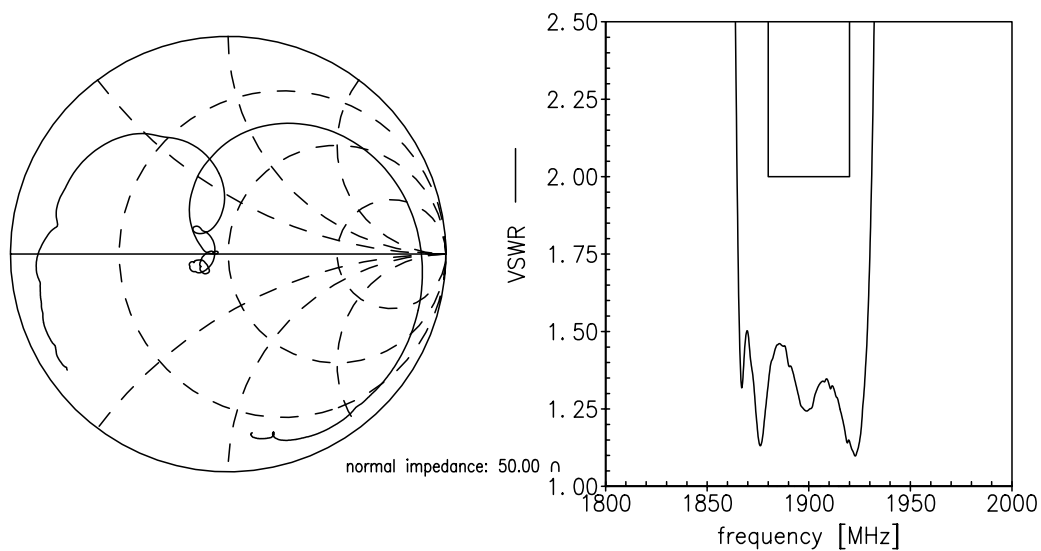
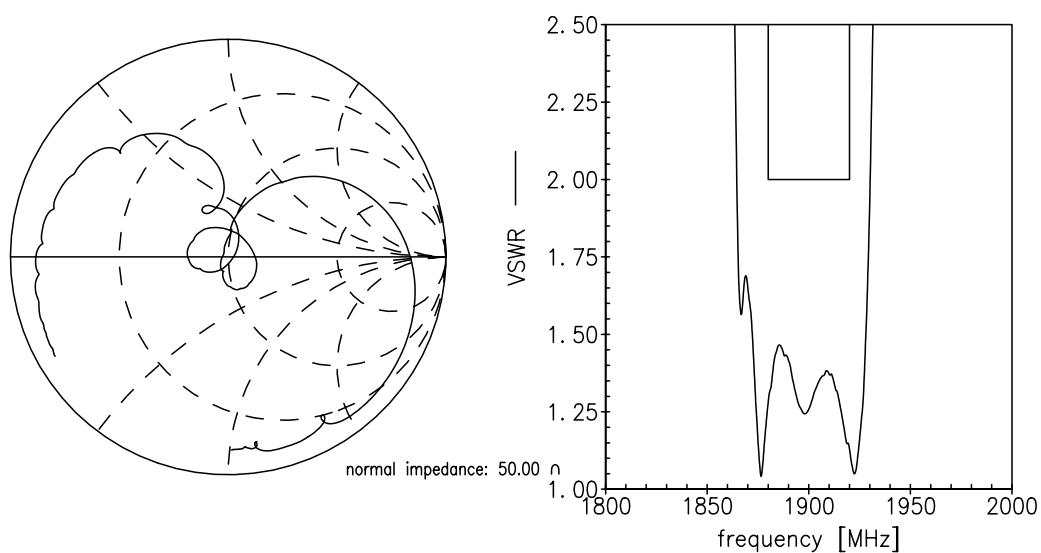
¹⁾ acc. to JESD22-A115B (machine model), 10 negative & 10 positive pulses.

Transfer function

Transfer function (wideband)


Data sheet



Smith charts

 S_{11} function

 S_{22} function


SAW Components
B5305
SAW filter for base station
1900.00 MHz

Data sheet


References

Type	B5305
Ordering code	B39192B5305U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8228-Z000
Date codes	L_1126
S-parameters	B5305_NB.s2p , B5305_WB.s2p see file header for port/pin assignment table
Soldering profile	S_6001
RoHS compatible	RoHS-compatible means that products are compatible with the requirements according to Art. 4 (substance restrictions) of Directive 2011/65/EU of the European Parliament and of the Council of June 8th, 2011, on the restriction of the use of certain hazardous substances in electrical and electronic equipment ("Directive") with due regard to the application of exemptions as per Annex III of the Directive in certain cases.
Matching coils	See Inductor pdf-catalog http://www.tdk.co.jp/tefe02/coil.htm#aname1 and Data Library for circuit simulation http://www.tdk.co.jp/etvcl/index.htm for a large variety of matching coils.

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Published by EPCOS AG

Systems, Acoustics, Waves Business Group

P.O. Box 80 17 09, 81617 Munich, GERMANY

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