



RF360 Europe GmbH

A Qualcomm – TDK Joint Venture



SAW Components

SAW RF filter for base stations

Series/type: B5116
Ordering code: B39751B5116U410

Date: Feb 11, 2015
Version: 2.1

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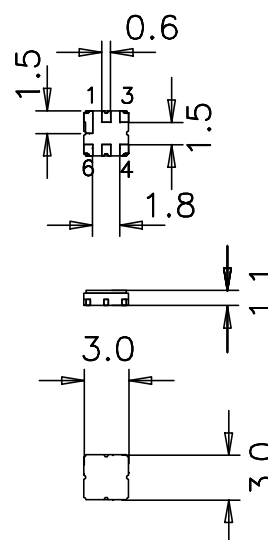
EPCOS AG is a TDK Group Company.

Application

- RF filter for base-station
- Unbalanced to unbalanced operation
- Low amplitude ripple
- Usable passband 11 MHz
- No matching required for operation at 50 Ω

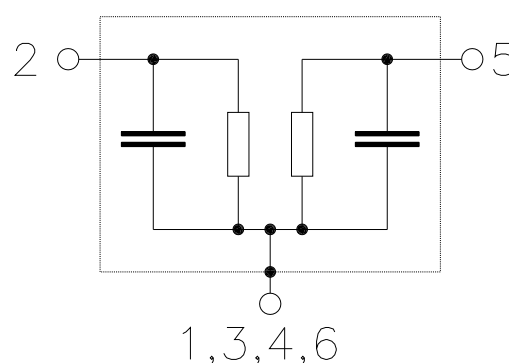
Features

- Package size 3.0 x 3.0 x 1.1 mm³
- Package code DCC6C
- RoHS compatible
- Approximate weight 0.037 g
- 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 To be grounded



SAW Components
B5116
SAW RF filter
751.5 MHz
Data sheet

Characteristics

Temperature range for specification: $T = -25\text{ }^{\circ}\text{C}$ to $+85\text{ }^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\text{ }\Omega$
 Terminating load impedance: $Z_L = 50\text{ }\Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	751.5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	—	1.5	2.2	dB
746.0 ... 757.0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.5	1.2	dB
746.0 ... 757.0 MHz					
Input return loss		10	13	—	dB
746.0 ... 757.0 MHz					
Output return loss		10	13	—	dB
746.0 ... 757.0 MHz					
Absolute group delay (mean)	$\bar{\tau}$	—	35	70	ns
746.0 ... 757.0 MHz					
Group delay ripple (p-p)	$\Delta\tau$	—	48	70	ns
746.0 ... 757.0 MHz					
Absolute attenuation	α_{abs}	15	30	—	dB
776.0 ... 787.0 MHz		25	30	—	dB
788.0 ... 805.0 MHz		25	38	—	dB
806.0 ... 849.0 MHz					

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Characteristics

Temperature range for specification: $T = -25\text{ }^{\circ}\text{C to }+105\text{ }^{\circ}\text{C}$
 Terminating source impedance: $Z_S = 50\text{ }\Omega$
 Terminating load impedance: $Z_L = 50\text{ }\Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	751.5	—	MHz
Maximum insertion attenuation	$\alpha_{\max}$	—	1.5	2.5	dB
746.0 ... 757.0 MHz					
Amplitude ripple (p-p)	$\Delta\alpha$	—	0.5	1.5	dB
746.0 ... 757.0 MHz					
Input return loss		9	13	—	dB
746.0 ... 757.0 MHz					
Output return loss		9	13	—	dB
746.0 ... 757.0 MHz					
Absolute group delay (mean)	$\bar{\tau}$	—	35	80	ns
746.0 ... 757.0 MHz					
Group delay ripple (p-p)	$\Delta\tau$	—	48	80	ns
746.0 ... 757.0 MHz					
Absolute attenuation	α_{abs}	15	30	—	dB
776.0 ... 787.0 MHz		25	30	—	dB
788.0 ... 805.0 MHz		25	38	—	dB
806.0 ... 849.0 MHz					

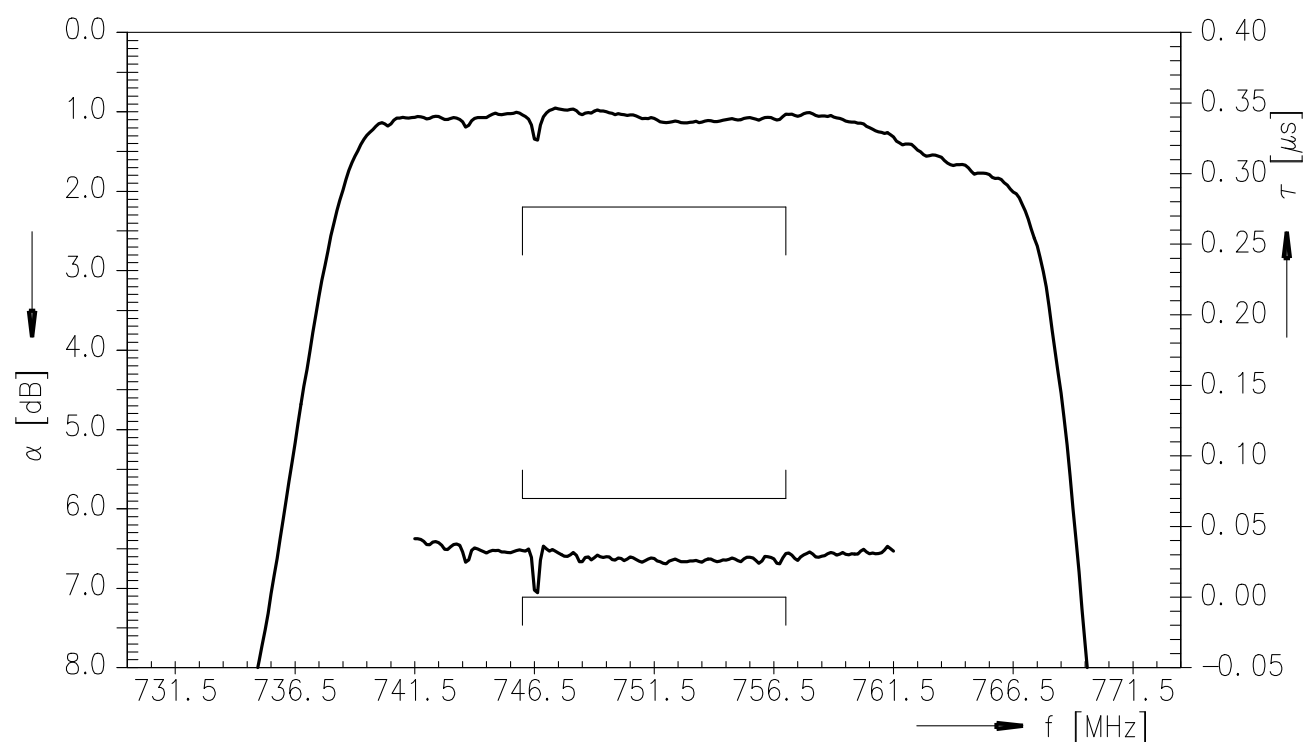
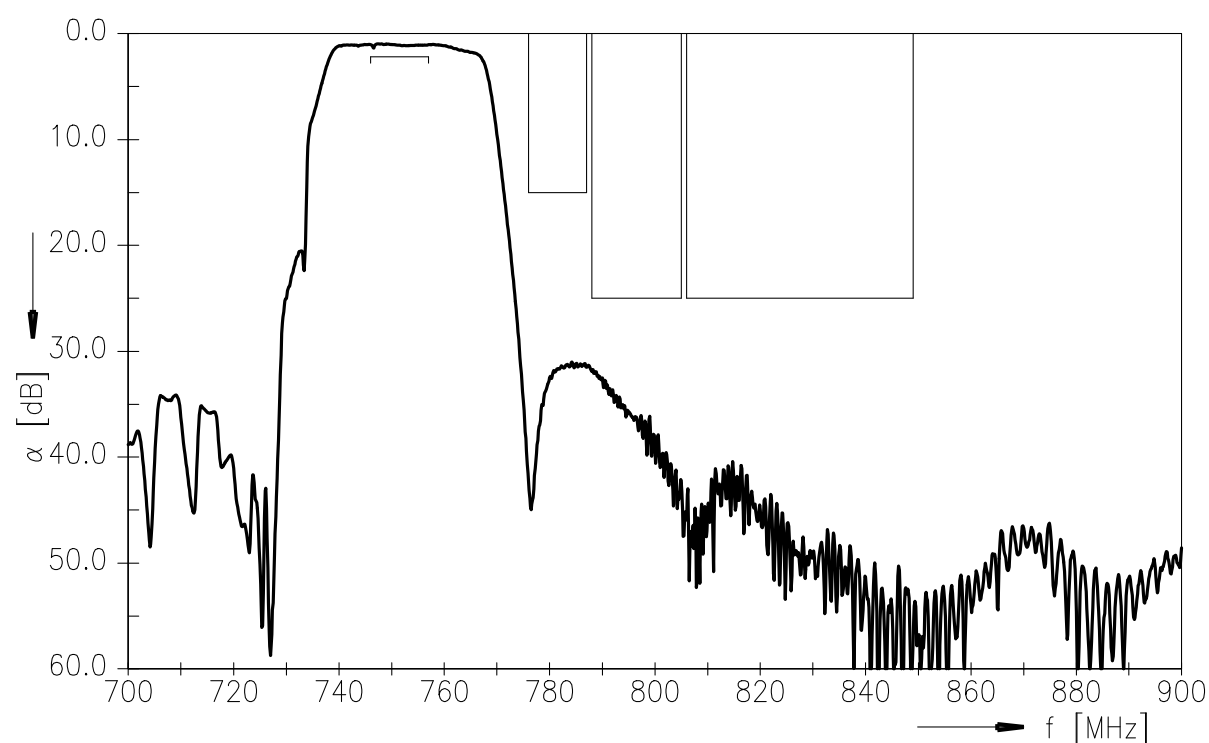
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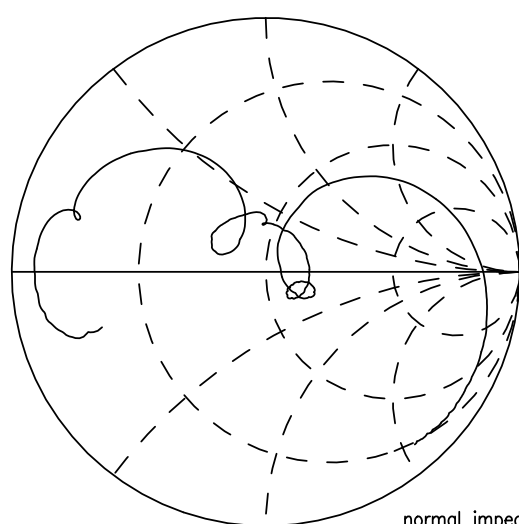
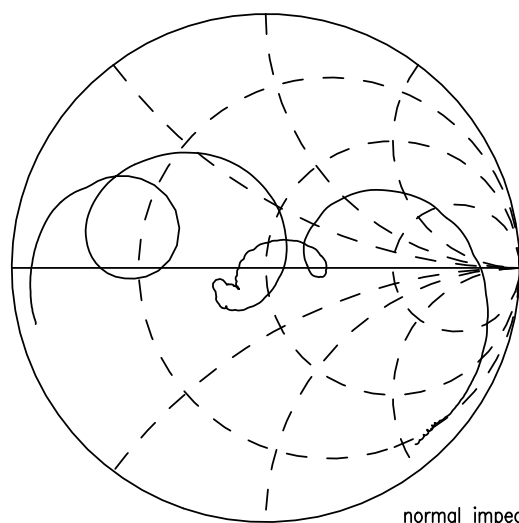
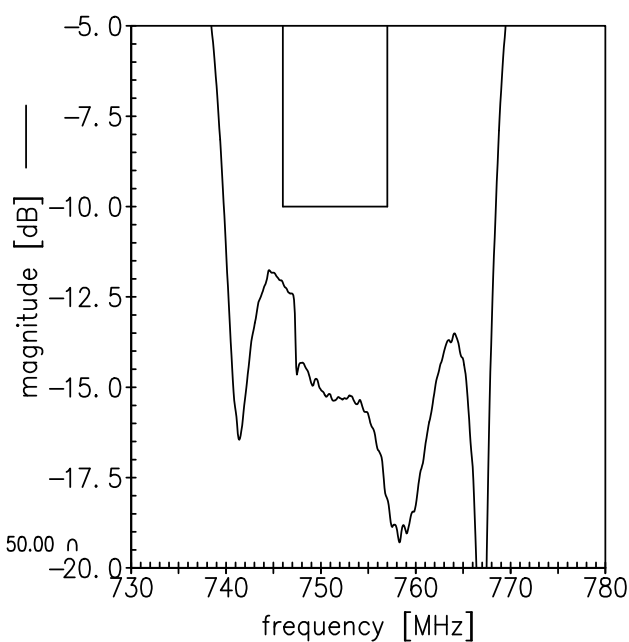
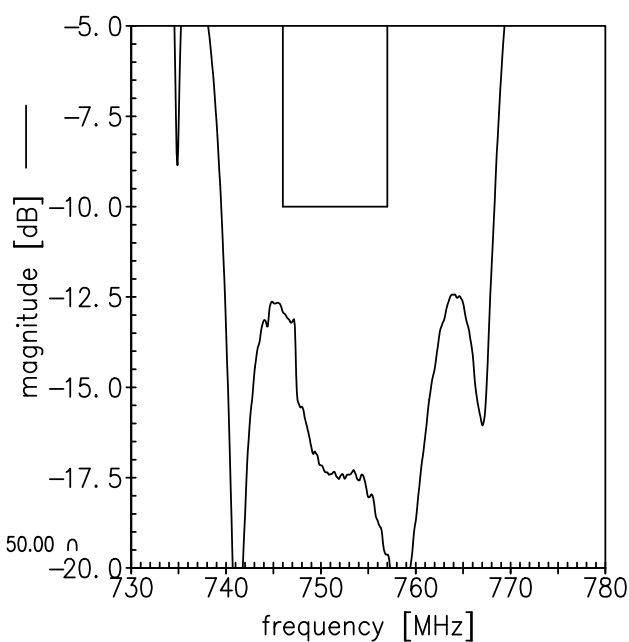
Data sheet


Maximum ratings

Operable temperature range	T	−45/+125	°C	
Storage temperature range	T _{stg}	−45/+125	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	100 ¹⁾	V	Machine Model
Input power	P _{IN}			
746 MHz ... 757 MHz		22	dBm	cw, 24h, 55°C
746 MHz ... 757 MHz		15	dBm	cw, 1000h, 85°C

¹⁾ acc. to JESD22-A115B (MM - Machine Model), 10 negative & 10 positive pulses

Transfer function (S21, narrowband)

Transfer function (S21, wideband)



normal impedance: 50.00 Ω

normal impedance: 50.00 Ω


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B5116
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751.5 MHz

Data sheet


References

Type	B5116
Ordering code	B39751B5116U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B5116_NB.s2p B5116_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.
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