

RF360 Europe GmbH

A Qualcomm – TDK Joint Venture

SAW Components

SAW filter

DCS 1800 band I

Series/type:	B5125
Ordering code:	B39172B5125U410
Date:	July 26, 2010
Version:	2.0

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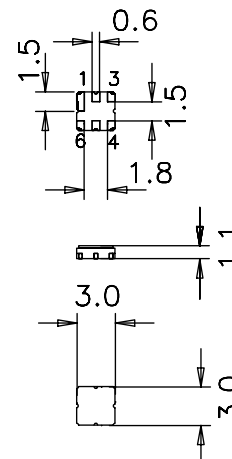
Data sheet

Application

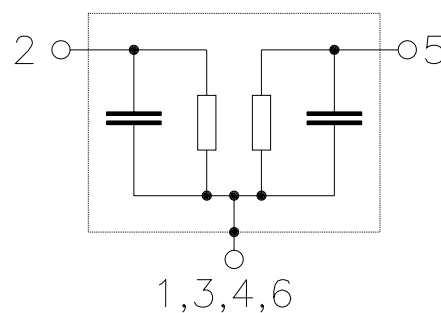
- DCS1800 band I filter
- Unbalanced to Unbalanced operation
- Low amplitude ripple
- Usable passband of 60 MHz
- No matching required for operation at 50 Ω


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)**


Pin configuration

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



Data sheet


Characteristics

Temperature range for specification: $T = -40\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_N	—	1740.00	—	MHz
Minimum insertion attenuation	α_{\min}				
1710.0 ... 1770.0	MHz	—	1.2	—	dB
Maximum insertion attenuation	α_{\max}				
1710.0 ... 1770.0	MHz	—	2.2	3.2	dB
Amplitude ripple (p-p)	$\Delta\alpha$				
1710.0 ... 1770.0	MHz	—	1.1	2.1	dB
Input VSWR					
1710.0 ... 1770.0	MHz	—	1.8:1	2.1:1	
Output VSWR					
1710.0 ... 1770.0	MHz	—	1.8:1	2.1:1	
Relative attenuation (relative to α_{\min})	α_{rel}				
10.0 ... 1678.0	MHz	20.0	24.0	—	dB
1802.0 ... 1805.0	MHz	10.0	40.0	—	dB
1805.0 ... 1880.0	MHz	20.0	29.0	—	dB
1880.0 ... 3200.0	MHz	20.0	29.0	—	dB
3200.0 ... 5200.0	MHz	15.5	23.0	—	dB


Maximum ratings

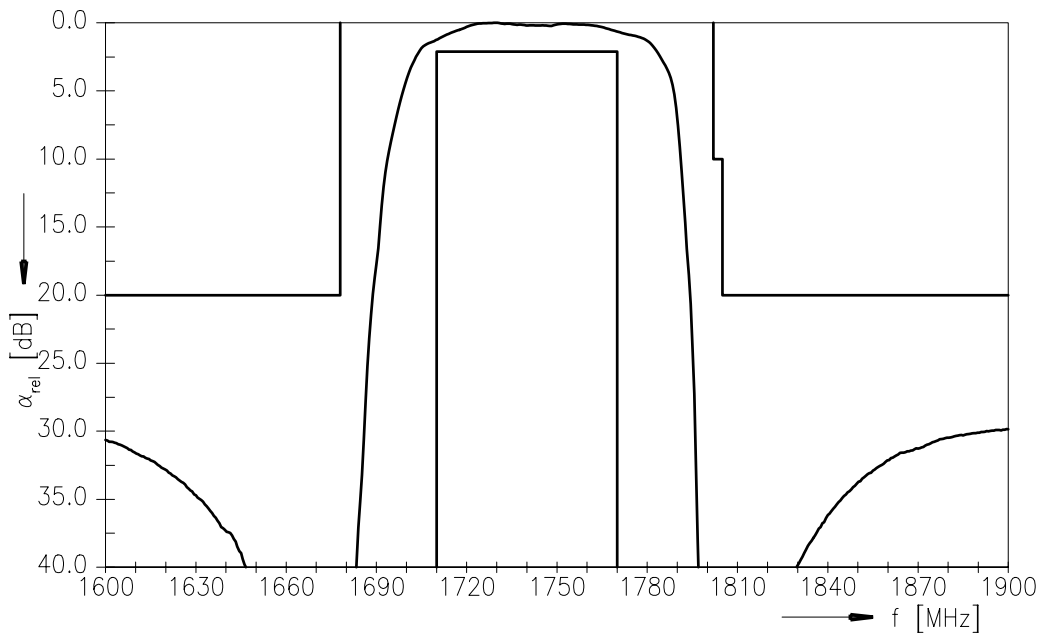
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 1 pulse
Input power at 1710 ... 1770.0	P _{IN}	10	dBm	Continuous wave (10000 hours)

¹⁾ acc. to JESD22-A115A (machine model), 1 negative & 1 positive pulse.

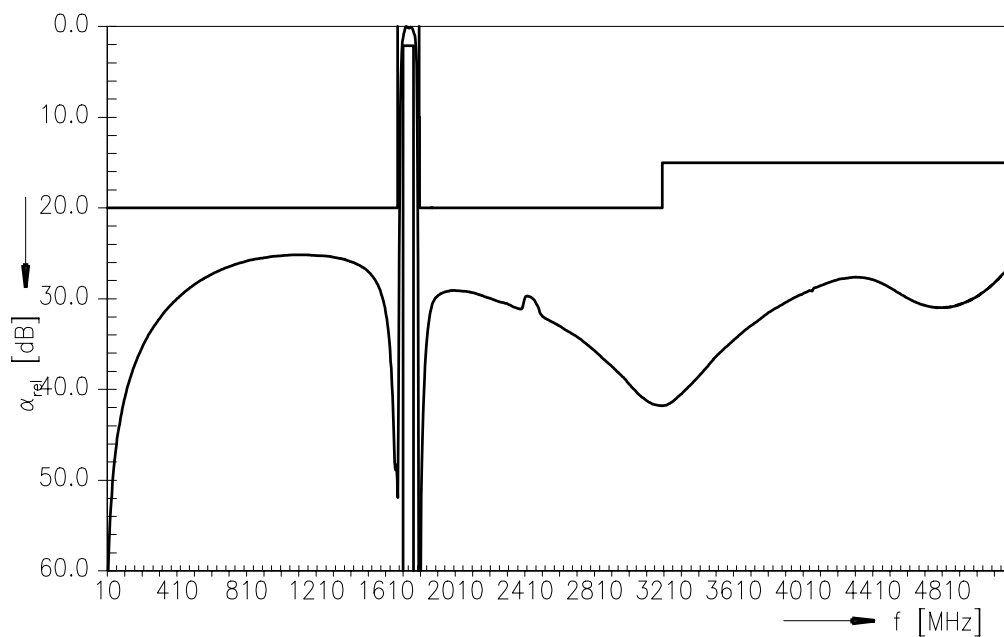
Data sheet



Transfer function (normalized)



Transfer function (wideband)

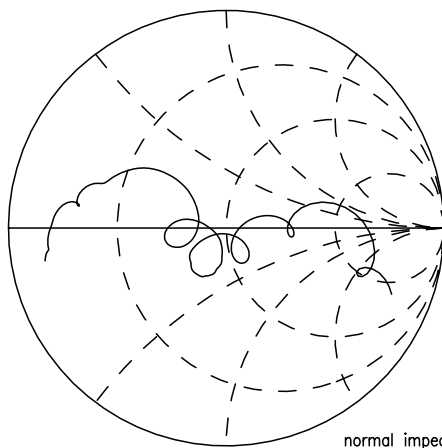


Data sheet

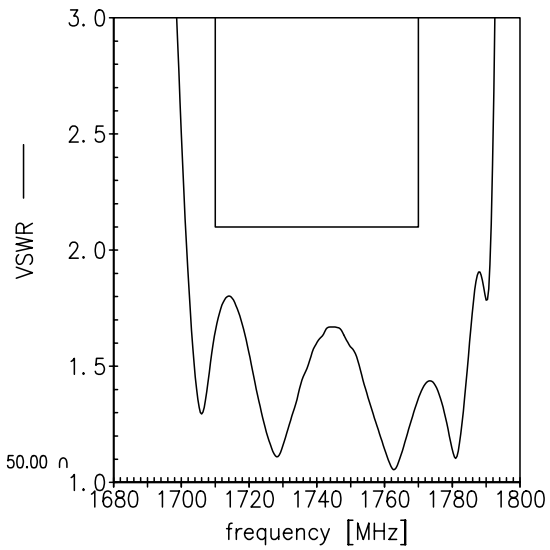


Smith charts

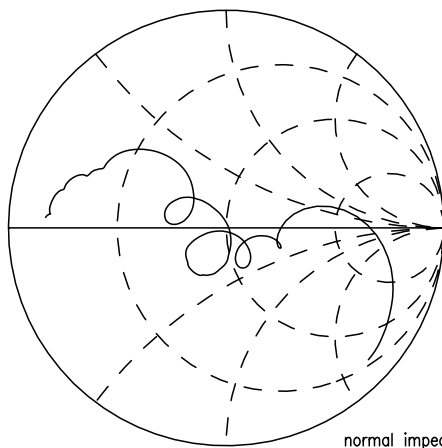
S₁₁ function



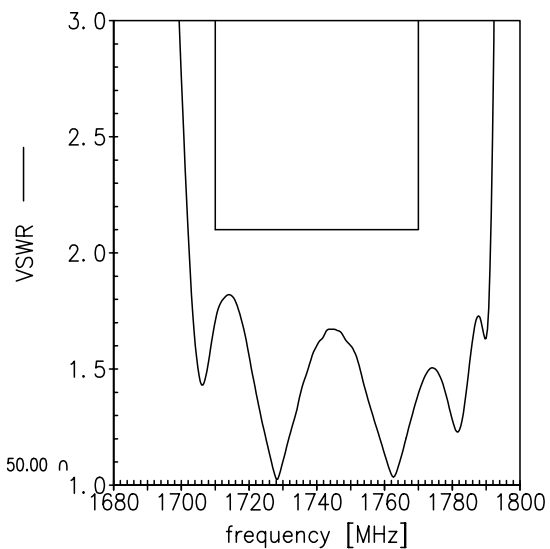
normal impedance: 50.00 Ω



S₂₂ function



normal impedance: 50.00 Ω



SAW Components	B5125
SAW filter	1740.00 MHz

Data sheet



References

Type	B5125
Ordering code	B39172B5125U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date codes	L_1126
S-parameters	B5125_NB.s2p, B5125_WB.s2p see file header for port/pin assignment table
Soldering profile	S_6001
RoHS compatible	defined as compatible with the following documents: "DIRECTIVE 2002/95/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on the restriction of the use of certain hazardous substances in electrical and electronic equipment. 2005/618/EC from April 18th, 2005, amending Directive 2002/95/EC of the European Parliament and of the Council for the purposes of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment."
Matching coils	See http://www.tdk.co.jp/tefe02/coil.htm#aname1 http://www.tdk.co.jp/etvcl/index.htm for a large variety of matching coils.

For further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com.

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