



SAW Components

SAW Tx filter

Automotive Telematics

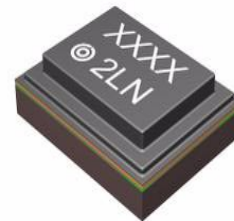
Series/type:	B4307
Ordering code:	B39172B4307F210
Date:	March 16, 2011
Version:	2.0

Data sheet



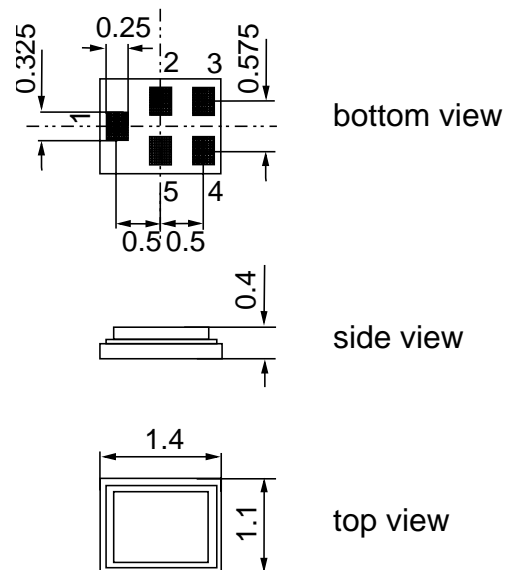
Application

- Low-loss RF filter for AWS systems, transmit path (Tx)
- Usable passband: 45MHz
- Unbalanced to unbalanced operation
- No matching network required for operation at 50 Ω



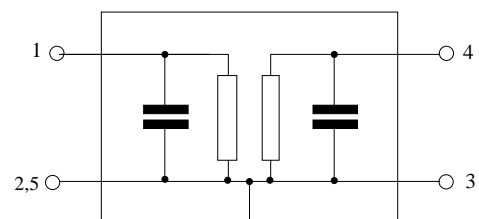
Features

- Package size 1.4 x1.1 x 0.4 mm³
- Package code QCS5P
- RoHS compatible
- Approximate weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- AEC-Q200 qualified component family (operable temperature range -40°C to +85°C)
- **Electrostatic Sensitive Device (ESD)**



Pin configuration

- 1 Input, unbalanced
- 4 Output, unbalanced
- 2,3,5 Case-ground



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_C	—	1732.50	—	MHz
Maximum insertion attenuation	1710.0 ... 1755.0		α_{max}	—	1.9	2.7	dB
Amplitude ripple (p-p)	1710.0 ... 1755.0		$\Delta\alpha$	—	1.0	1.7	dB
VSWR	1710.0 ... 1755.0			—	2.1	2.5	
Attenuation			α				
	100.0 ... 1400.0			40	46	—	dB
	1400.0 ... 1610.0			35	42	—	dB
	1610.0 ... 1670.0			30	39	—	dB
	1670.0 ... 1680.0			15	33	—	dB
	1790.0 ... 1800.0			15	33	—	dB
	1800.0 ... 1930.0			30	39	—	dB
	1930.0 ... 2200.0			36	40	—	dB
	2200.0 ... 5000.0			30	39	—	dB

Maximum ratings

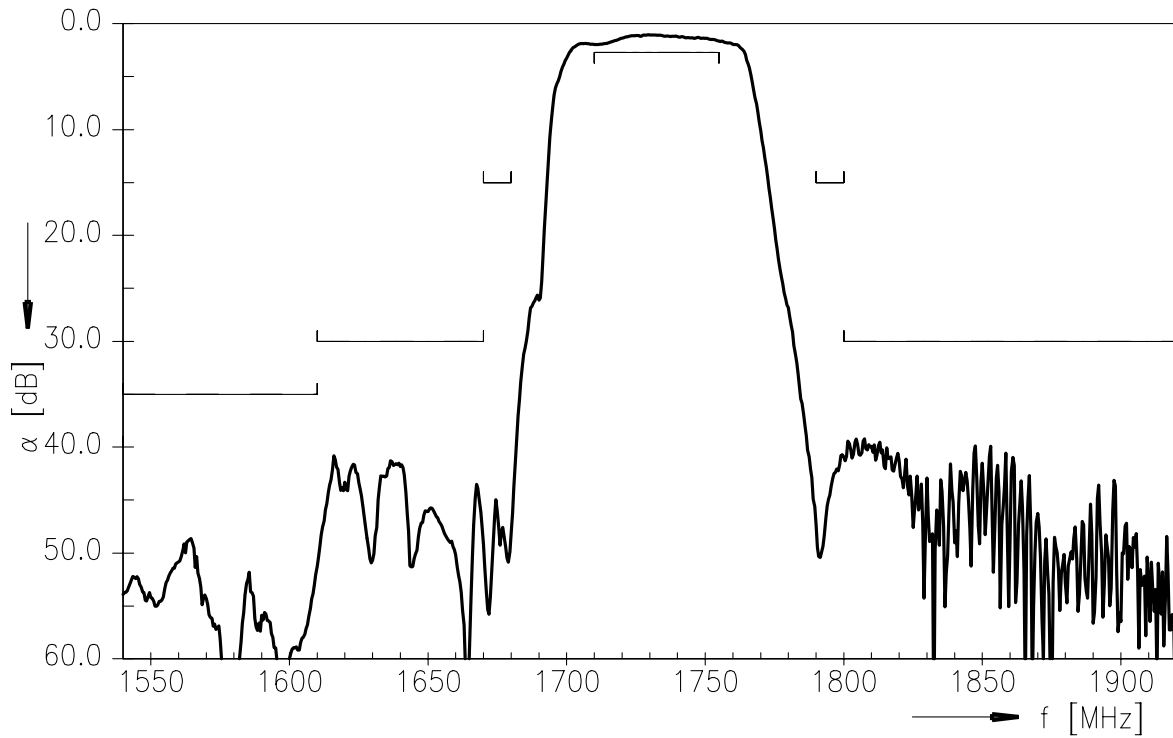
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	50 ¹⁾	V	machine model, 1 pulse
Input power at 1710 MHz ... 1755 MHz	P _{IN}	10	dBm	continuous wave

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

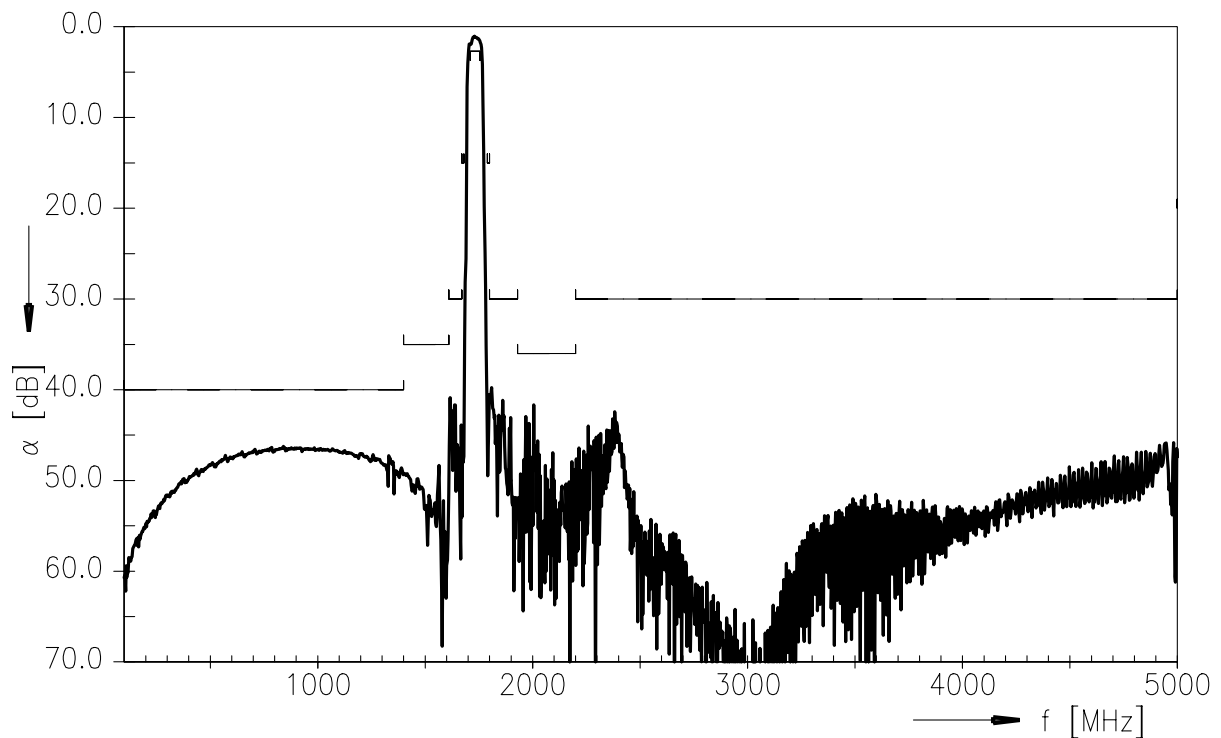
Data sheet



Transfer function



Transfer function (wideband)



References

Type	B4307
Ordering code	B39172B4307F210
Marking and package	C61157-A8-A9
Packaging	F61074-V8212-Z000
Date codes	L_1126
S-parameters	B4307_NB.s2p, B4307_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."
Moldability	Before using in overmolding environment, please contact your EPCOS sales office.
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 further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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