



SAW Components

SAW filter for smallcells

Band 34 (3G/LTE)

Series/type:	B9626
Ordering code:	B39202B9626P810
Date:	October 12, 2015
Version:	2.1

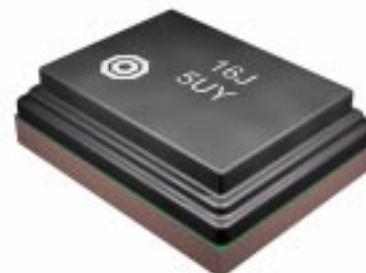
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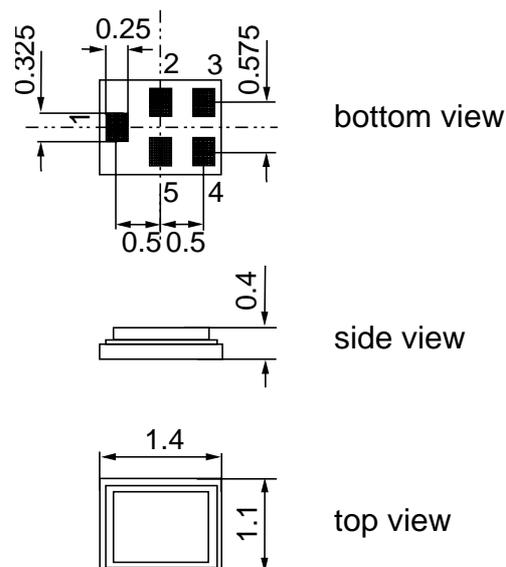
Data sheet


Application

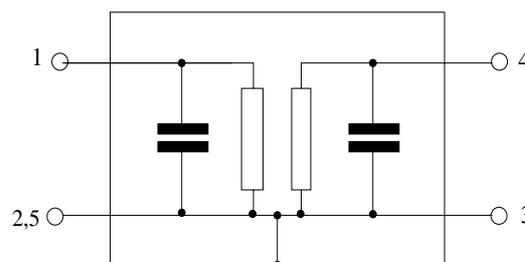
- Low-loss SAW filter for 3G/LTE smallcells systems (Band 34)
- Usable passband 15 MHz
- Low amplitude ripple
- High power durability


Features

- Package size 1.4 x1.1 mm²
- Maximum package height 0.4 mm
- RoHS compatible
- Package for **Surface Mount Technology (SMT)**
- Ni, Au-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitivity Level 3**


Pin configuration

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



Data sheet


Characteristics

Temperature range for specification: $T = -10\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$
 Terminating load impedance: $Z_L = 50\ \Omega$

				min.	typ. @ 25 °C	max.	
Center frequency			f_C	—	2017.5	—	MHz
Maximum insertion attenuation	2010.0 ... 2025.0	MHz	α_{\max}	—	1.5	2.3	dB
Amplitude ripple (p-p)	2010.0 ... 2025.0	MHz	$\Delta\alpha$	—	0.4	1.1	dB
Input VSWR	2010.0 ... 2025.0	MHz		—	1.5	2.0	
Output VSWR	2010.0 ... 2025.0	MHz		—	1.7	2.0	
Error Vector Magnitude	@ f_{Carrier} 2012.4 ... 2022.6	MHz	EVM ¹⁾	—	0.5	2.0	%
Absolute Attenuation			α				
	50.0 ... 1850.0	MHz		33	36	—	dB
	1850.0 ... 1950.0	MHz		35	40	—	dB
	1950.0 ... 1980.0	MHz		14	40	—	dB
	2050.0 ... 2075.0	MHz		5	10	—	dB
	2110.0 ... 2395.0	MHz		25	40	—	dB
	2395.0 ... 3500.0	MHz		30	40	—	dB
	3500.0 ... 5000.0	MHz		30	36	—	dB
	5000.0 ... 6000.0	MHz		20	24	—	dB

1) Error Vector Magnitude (EVM) based on definition given in 3GPP TS 25.141.


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
		325 ²⁾	V	
Input power at 2010.0 ... 2025.0 MHz	P _{in}	24 ³⁾	dBm	Source and load impedance 50 Ω } LTE 5 MHz downlink T = 55°C, 100k hrs
Operating lifetime with Ouput power at antenna 2010.0 ... 2025.0 MHz		tbc ⁴⁾	dBm	Source and load impedance 50 Ω Continuous wave T = 55°C, 100k hrs

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

2) acc. to JESD22-A114F (human body model), 1 negative & 1 positive pulses.

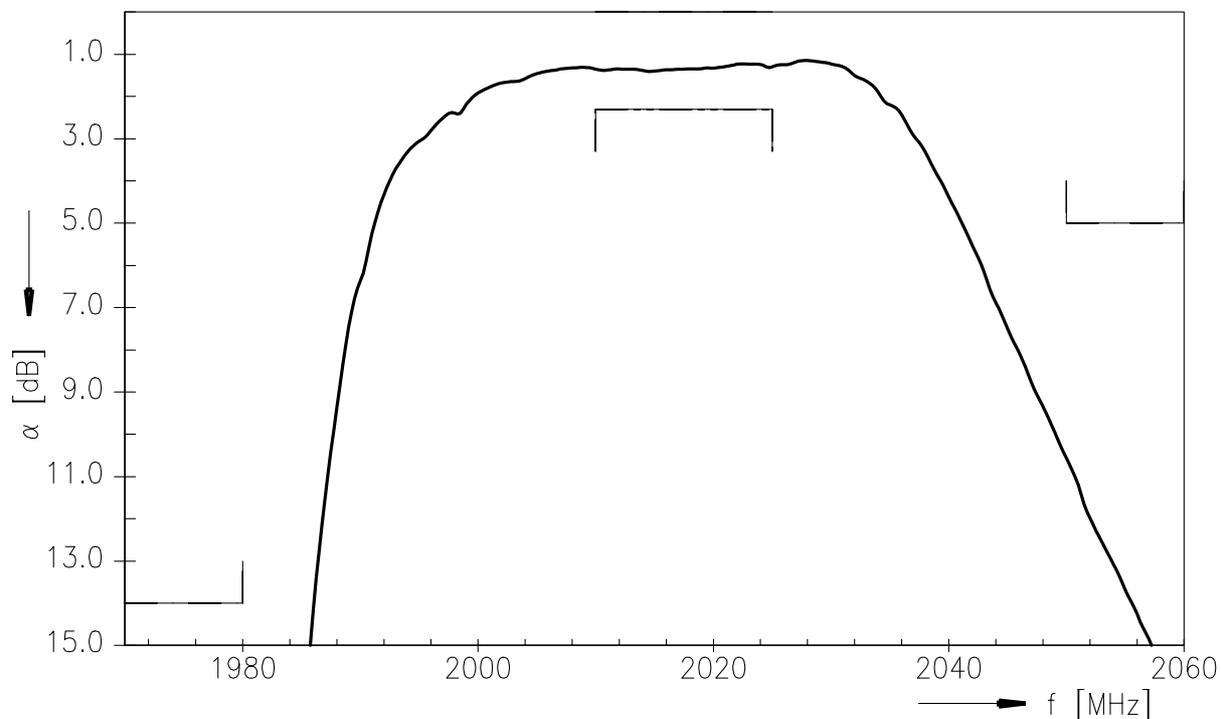
3) Time to failure (TTF) according to accelerated power durability test, and wear out models.

4) according to accelerated High Temperating Operating Life (HTOL) test.

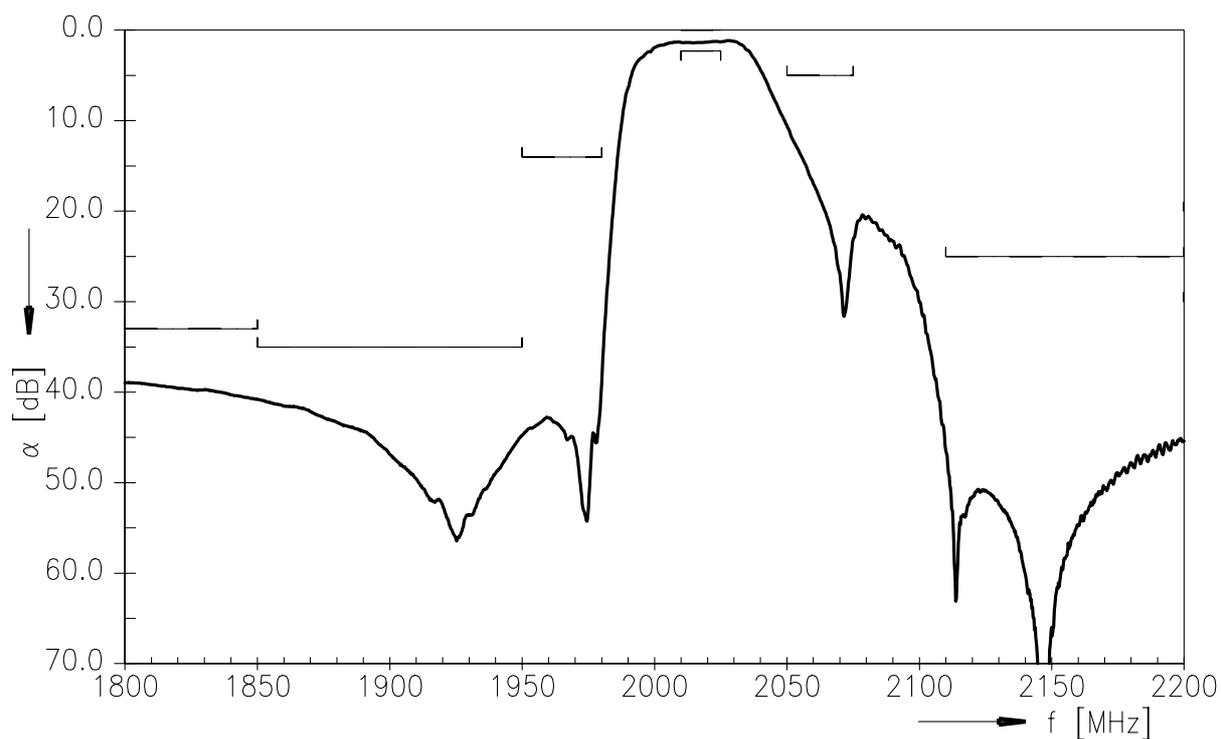
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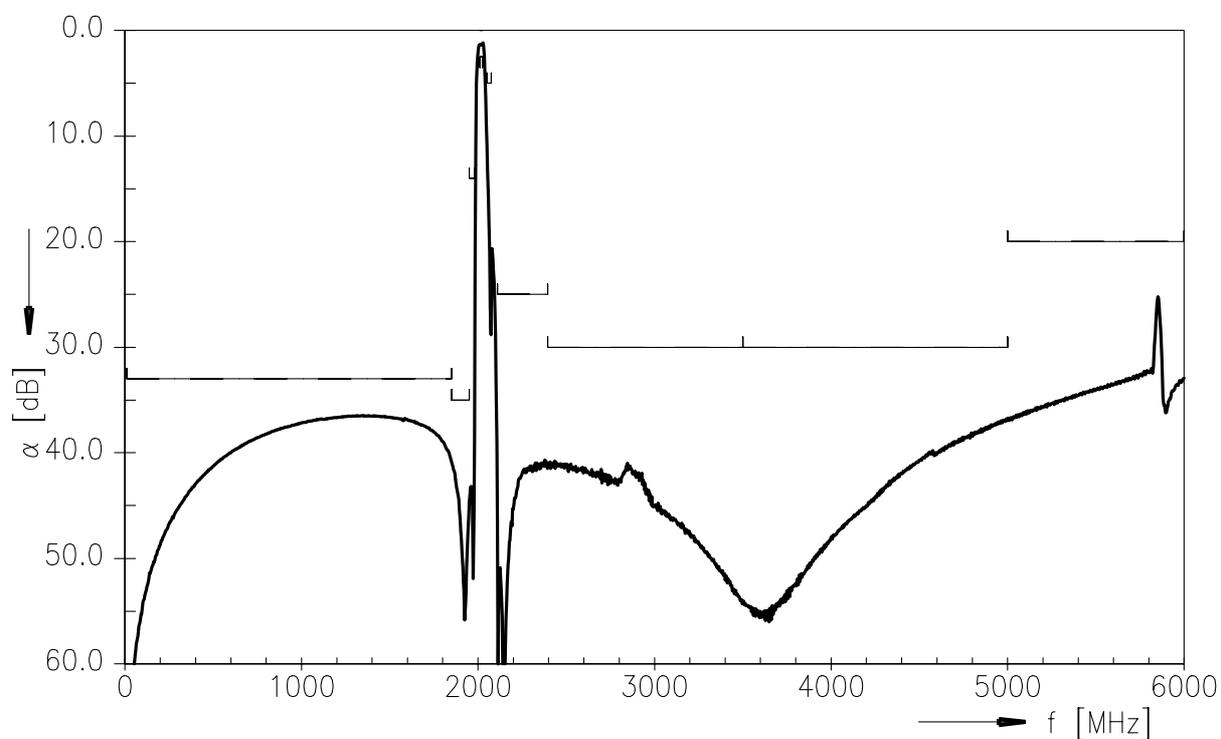
Transfer function passband



Transfer function narrowband



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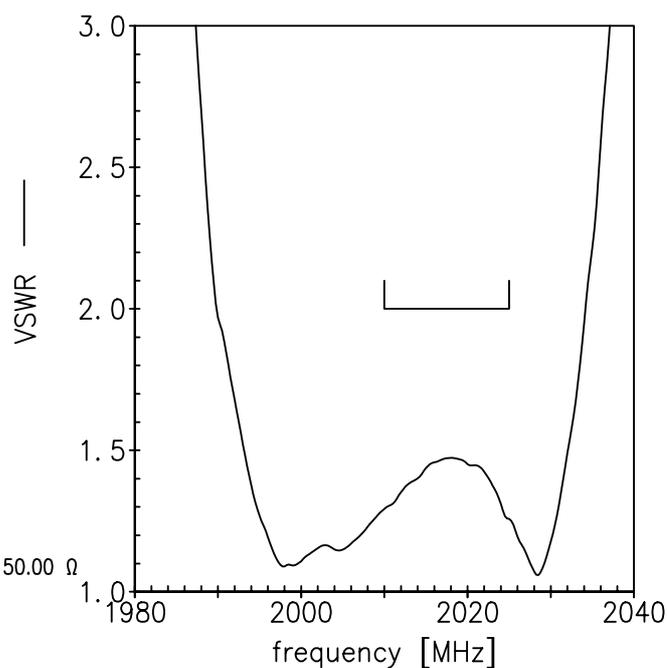
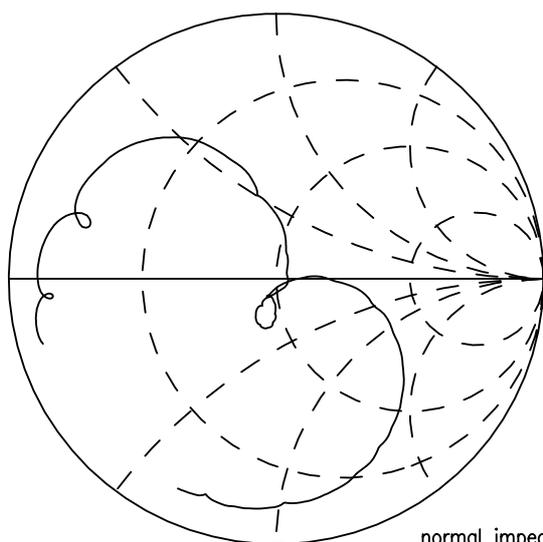

Transfer function wideband


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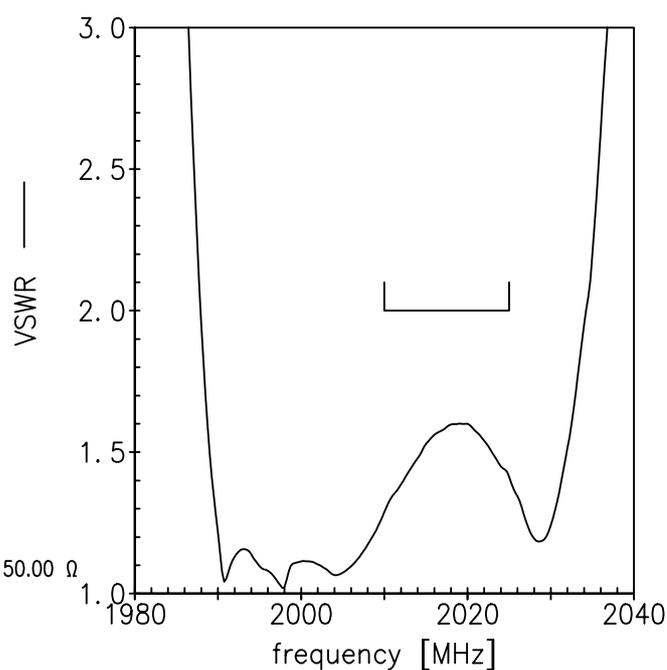
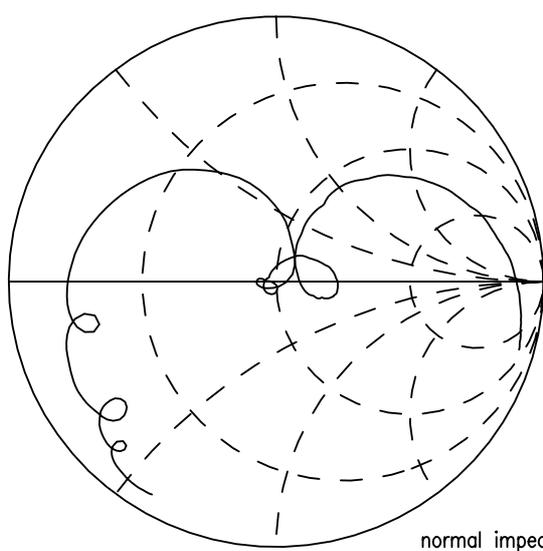


Smith chart

S₁₁ function



S₂₂ function



Data sheet


References

Type	B9626
Ordering code	B39202B9626P810
Marking and package	C61157-A8-A9
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	see file header for port/pin assignment table
Soldering profile	S_6001
RoHS compatible	RoHS-compatible means that products are compatible with therequirements 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.
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 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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