



RF360 Europe GmbH

A Qualcomm – TDK Joint Venture

## SAW Components

### SAW Filter

TD-SCDMA 1900

Series/type:	B9483
Ordering code:	B39192B9483P810
Date:	October 13, 2016
Version:	2.1

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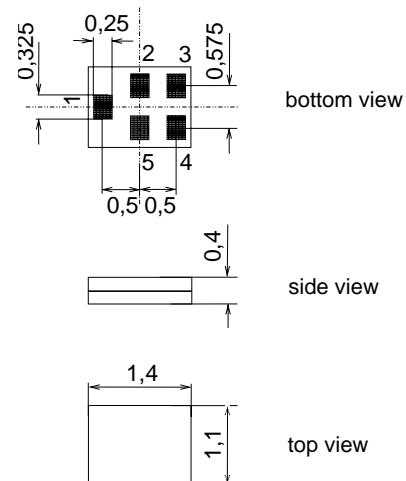
Data sheet


**Application**

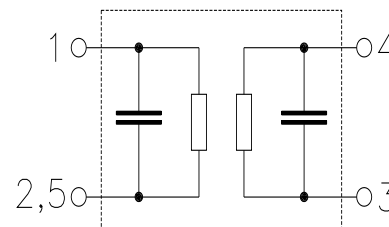
- Low-loss RF filter for mobile telephone TD-SCDMA systems.
- Unbalanced to balanced operation
- Low amplitude ripple
- Usable passband 40MHz
- Impedance 50 Ω at input and 100 Ω balanced output
- No matching network


**Features**

- Package size 1.4 x 1.1 x 0.4 mm<sup>3</sup>
- RoHS compatible
- Approx. weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitive Level 3**


**Pin configuration**

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



Data sheet


**Characteristics**

Temperature range for specification:  $T = -30\text{ °C to }+85\text{ °C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 100\ \Omega$

		min.	typ. @ 25 °C	max.	
<b>Center frequency</b>	$f_C$	—	1900.0	—	MHz
<b>Maximum insertion attenuation</b>	$\alpha_{\max}$	—	1.8	2.1	dB
1880.0 ... 1920.0 MHz					
<b>Amplitude ripple (p-p)</b>	$\Delta\alpha$	—	0.6	1.0	dB
1880.0 ... 1920.0 MHz					
<b>Input VSWR</b>		—	1.8	2.1	
1880.0 ... 1920.0 MHz					
<b>Output VSWR</b>		—	1.8	2.1	
1880.0 ... 1920.0 MHz					
<b>Common mode rejection ratio</b>		20	23	—	dB
1880.0 ... 1920.0 MHz					
<b>Attenuation</b>	$\alpha$	30	40	—	dB
0.1 ... 1795.0 MHz					
1795.0 ... 1820.0 MHz		25	32	—	
1820.0 ... 1850.0 MHz		20	23	—	
1950.0 ... 1980.0 MHz		17	20	—	
1980.0 ... 2025.0 MHz		15	25	—	
2025.0 ... 6000.0 MHz		25	31	—	


**Maximum ratings**

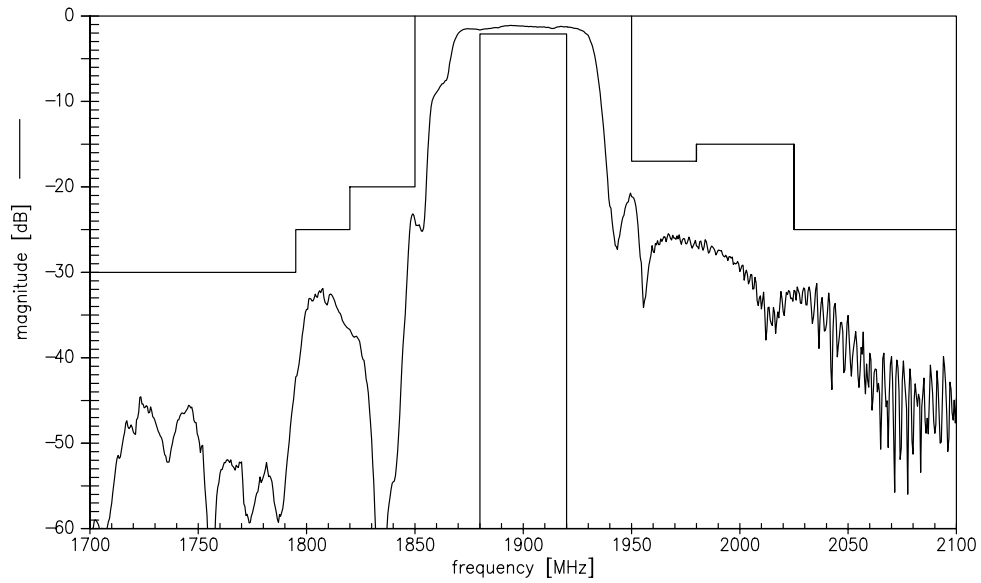
Operable temperature range	T	-40/+85	°C	
Storage temperature range	T <sub>stg</sub>	-40/+85	°C	
DC voltage	V <sub>DC</sub>	3	V	
ESD voltage	V <sub>ESD</sub>	50 <sup>1)</sup>	V	machine model, 1 pulse
Input Power at 1880.0...1920.0MHz	P <sub>IN</sub>	12	dBm	continuous wave

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

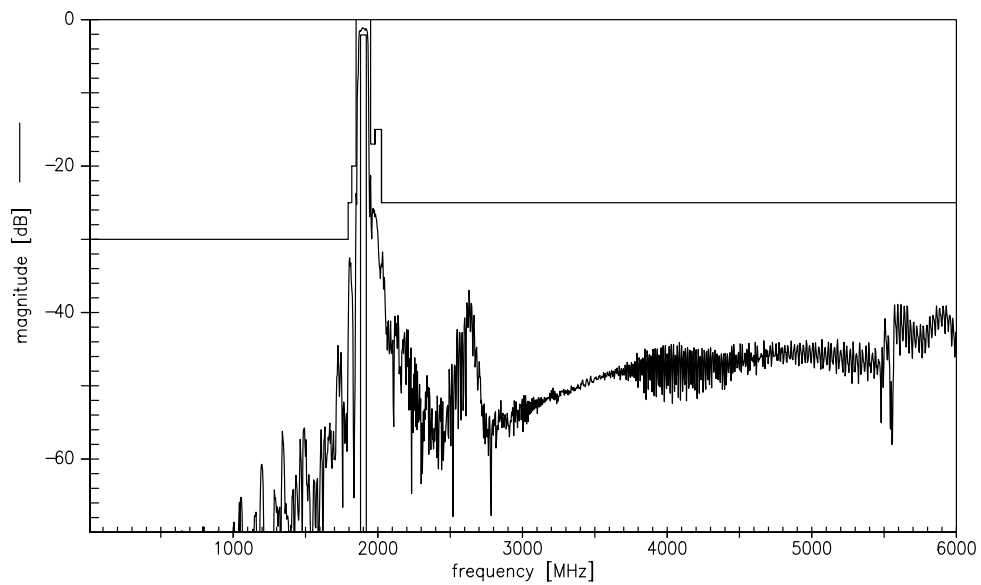
Data sheet



Transfer function (narrowband)



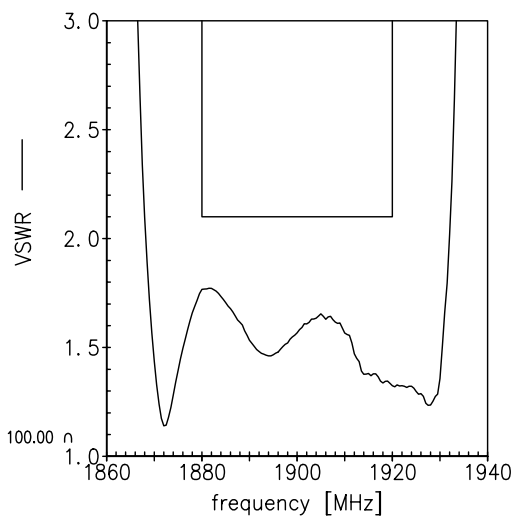
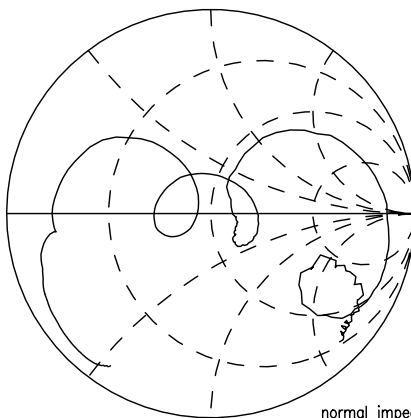
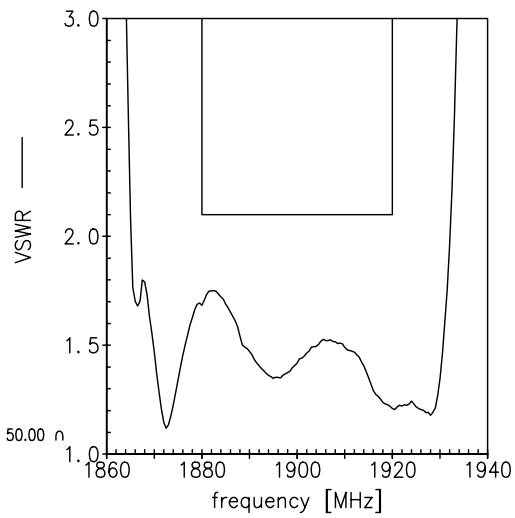
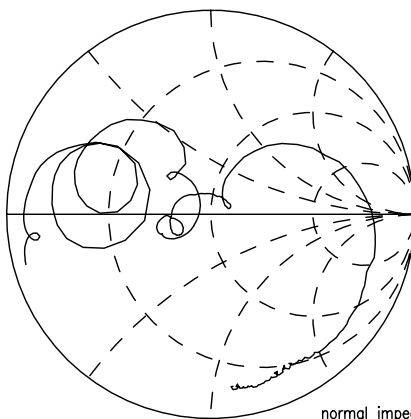
Transfer function (wideband)



Please read *cautions and warnings* and *important notes* at the end of this document.



**S<sub>11</sub> function**






**References**

<b>Type</b>	B9483
<b>Ordering code</b>	B39192B9483P810
<b>Marking and package</b>	C61157-A8-A14-4-27
<b>Packaging</b>	F61074-V8237-Z000
<b>Date codes</b>	L_1126
<b>S-parameters</b>	B9483_NB_UN.s3p, B9483_WB_UN.s3p see file header for port/pin assignment table
<b>Soldering profile</b>	S_6001
<b>RoHS compatible</b>	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 8 <sup>th</sup> , 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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<b>Matching coils</b>	See Inductor pdf-catalog <a href="http://www.tdk.co.jp/tefe02/coil.htm#aname1">http://www.tdk.co.jp/tefe02/coil.htm#aname1</a> and Data Library for circuit simulation <a href="http://www.tdk.co.jp/etvcl/index.htm">http://www.tdk.co.jp/etvcl/index.htm</a> for a large variety of matching coils.

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