



SAW Components

SAW IF Filter for Base Stations

WiMax

Series/type:	B5106
Ordering code:	B39521B5106U410
Date:	January 13, 2009
Version:	2.0

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SAW IF Filter

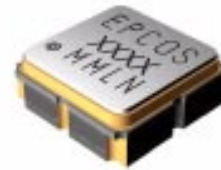
520.0 MHz

Data-sheet

SMD

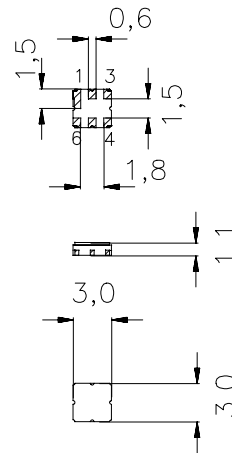
Application

- IF filter for WiMax base station
- Low ripple
- Small size
- Single ended operation on $50\ \Omega$



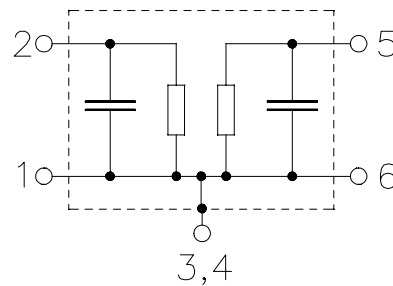
Features

- Package size $3.0 \times 3.0 \times 1.1\ \text{mm}^3$
- Package code DCC6C
- RoHS compatible
- Approx. weight 0.037 g
- Package for **Surface Mount Technology (SMT)**
- Ni, gold-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- Filter surface passivated



Pin configuration

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



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

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Characteristics

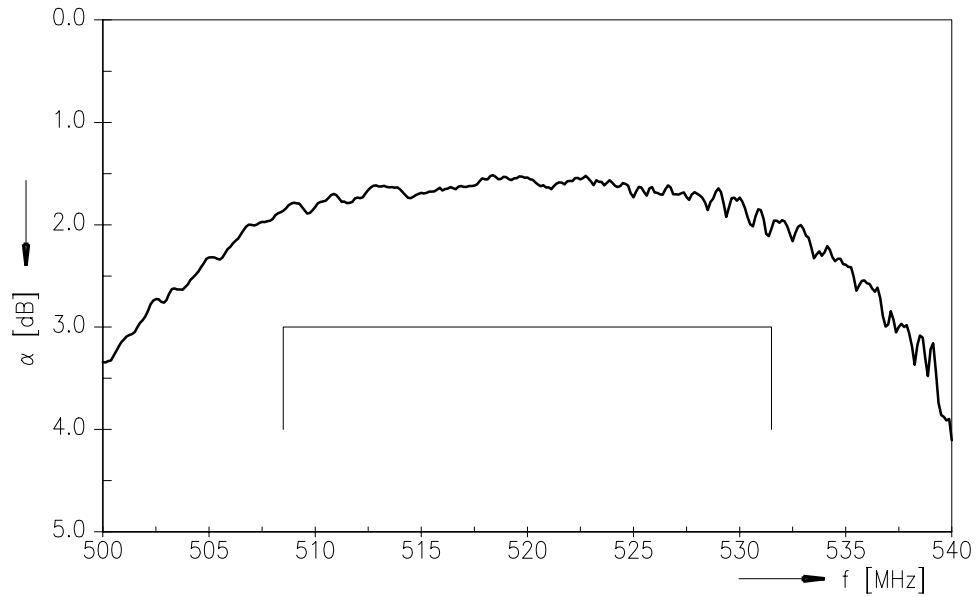
Temperature range for specification: $T = -40$ to $+85$ °C
 Terminating source impedance: $Z_S = 50 \Omega$
 Terminating load impedance: $Z_L = 50 \Omega$

		min.	typ. @ 25 °C	max.	
Center frequency	f_C	—	520	—	MHz
Maximum insertion attenuation	α_{max}				
	$f_N \pm 11.5$ MHz	—	2.2	3.0	dB
Group delay ripple (p-p)	$\Delta\tau$				
	$f_N \pm 11.5$ MHz	—	0.040	—	μs
Amplitude ripple (p-p)	$\Delta\alpha$				
	$f_N \pm 11.5$ MHz	—	0.6	1.0	dB
Relative attenuation (relative to α_{min})	α_{rel}				
	$f_N \pm 11.5$ MHz	1.0	0.6	—	dB
	$f_N - 30.0$ MHz	7.0	13.0	—	dB
	$f_N + 30.0$ MHz	13.0	19.0	—	dB
	460.0 MHz	35.0	48.0	—	
	10.0 ... 450.0 MHz	30.0	48.0	—	dB
	580.0 ... 590.0 MHz	25.0	36.0	—	dB
	590.0 ... 1100.0 MHz	30.0	43.0	—	dB
Return loss					
	$f_N \pm 11.5$ MHz	10.0	16.0	—	dB
Temperature coefficient of frequency	TC_f	—	-64	—	ppm/K

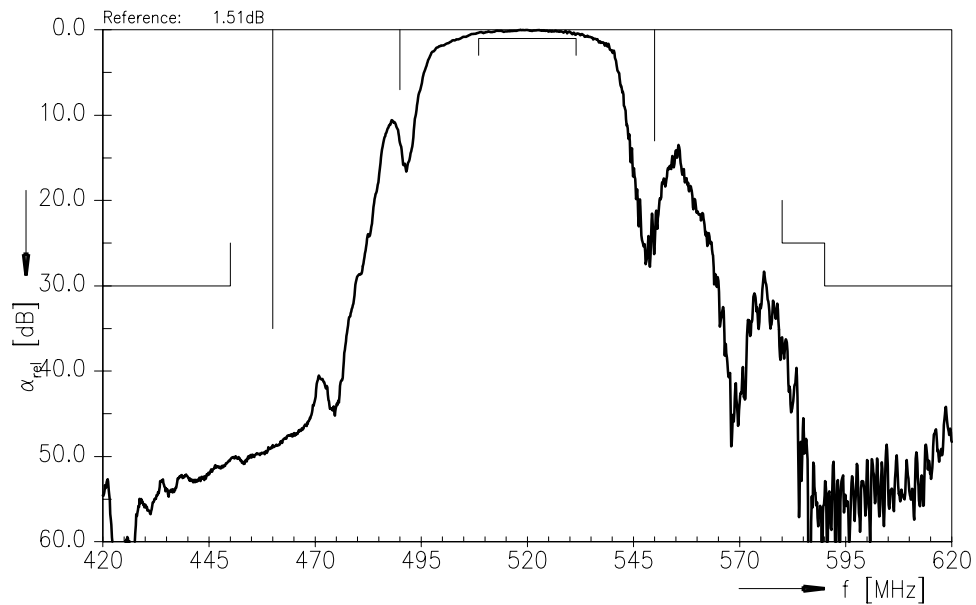
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Transfer function



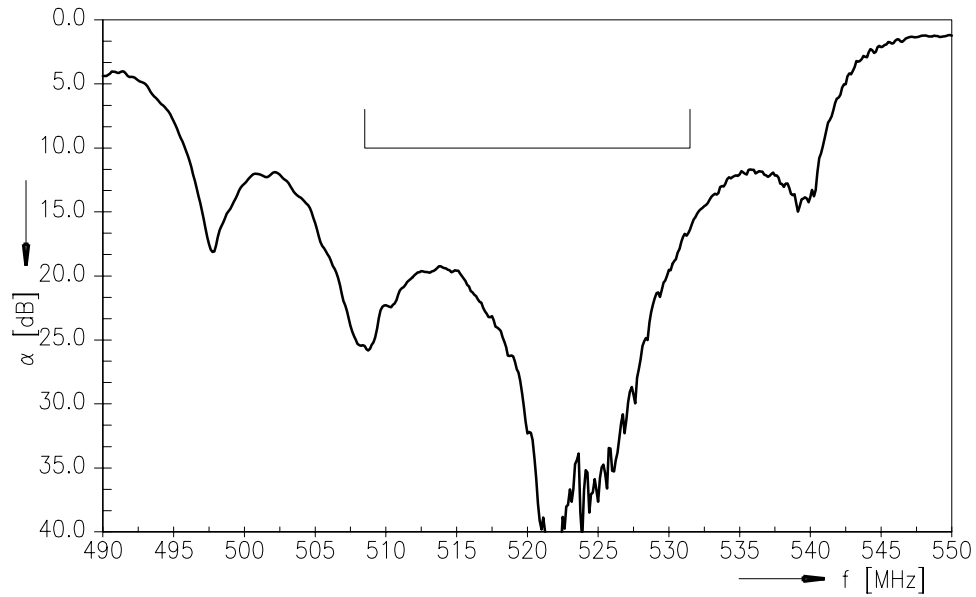
Transfer function (wideband)



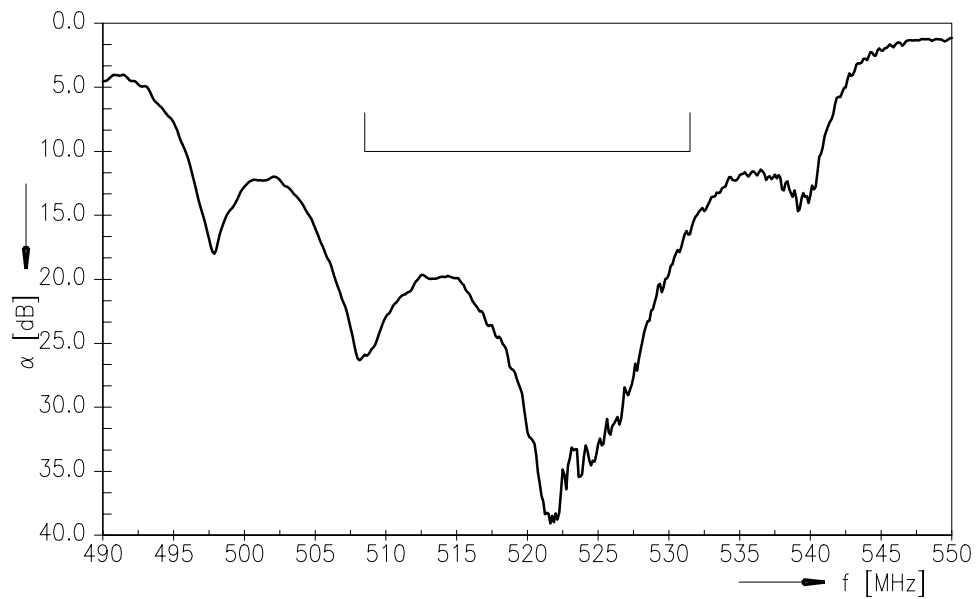
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Return Loss Input



Return Loss Output



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Maximum ratings

Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{sta}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
Input power	P _{IN}	15	dBm	

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References

Type	B5106
Ordering code	B39521B5106U410
Marking and package	C61157-A7-A67
Packaging	F61074-V8168-Z000
Date code	L_1126
S-parameters	LI30B_NB.S2P
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."

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