



SAW Components

SAW IF filter for base stations

Series/type:	B5258
Ordering code:	B39181B5258H810
Date:	January 22, 2013
Version:	2.0

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Data sheet

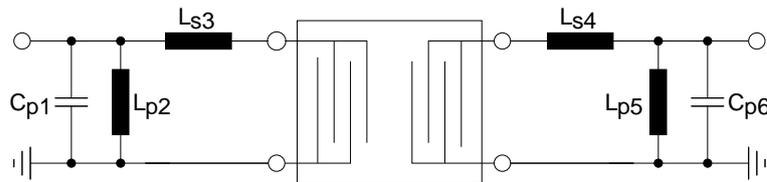
Characteristics

Temperature range for specification:	T = -40 °C to +80 °C
Terminating source impedance:	Z _S = 50 Ω unbalanced and matching network
Terminating load impedance:	Z _L = 50 Ω unbalanced and matching network

		min.	typ. @ 25 °C	max.		
Nominal frequency	f _N	—	184.3	—	MHz	
Minimum insertion attenuation (including matching network)	α _{min}	—	9.0	10.3	dB	
Passband width						
	α _{rel} ≤ 1.0 dB	B _{1.0dB}	47	49	50	MHz
Amplitude ripple (p-p)						
	f _N ± 23.5 MHz	Δα	—	0.5	1.0	dB
Phase ripple (p-p)						
	f _N ± 23.5 MHz	Δφ	—	5	10	°
Group delay ripple (p-p)						
	f _N ± 23.5 MHz	Δτ	—	25	60	ns
Absolute group delay (mean)						
	f _N ± 23.5 MHz	$\bar{\tau}$	—	0.42	—	μs
Relative attenuation (relative to α_{min})						
	10.0 MHz ... 100.0 MHz	α _{rel}	55	60	—	dB
	100.0 MHz ... 127.0 MHz		45	49	—	dB
	127.0 MHz ... 130.0 MHz		42	44	—	dB
	130.0 MHz ... 150.0 MHz		31	32	—	dB
	150.0 MHz ... 155.0 MHz		17	24	—	dB
	213.0 MHz ... 218.0 MHz		5	8	—	dB
	218.0 MHz ... 223.0 MHz		20	34	—	dB
	223.0 MHz ... 268.0 MHz		33 ¹⁾	39	—	dB
	268.0 MHz ... 450.0 MHz		40	51	—	dB
	450.0 MHz ... 565.0 MHz		30	35	—	dB
	565.0 MHz ... 1000.0 MHz		40	45	—	dB
VSWR						
	input f _N ± 23.5 MHz		—	1.7:1	2.1:1	
	output f _N ± 23.5 MHz		—	1.7:1	2.1:1	

¹⁾ some spikes may reach up to 30 dB

Data sheet


Matching network to 50 Ω unbalanced input and output


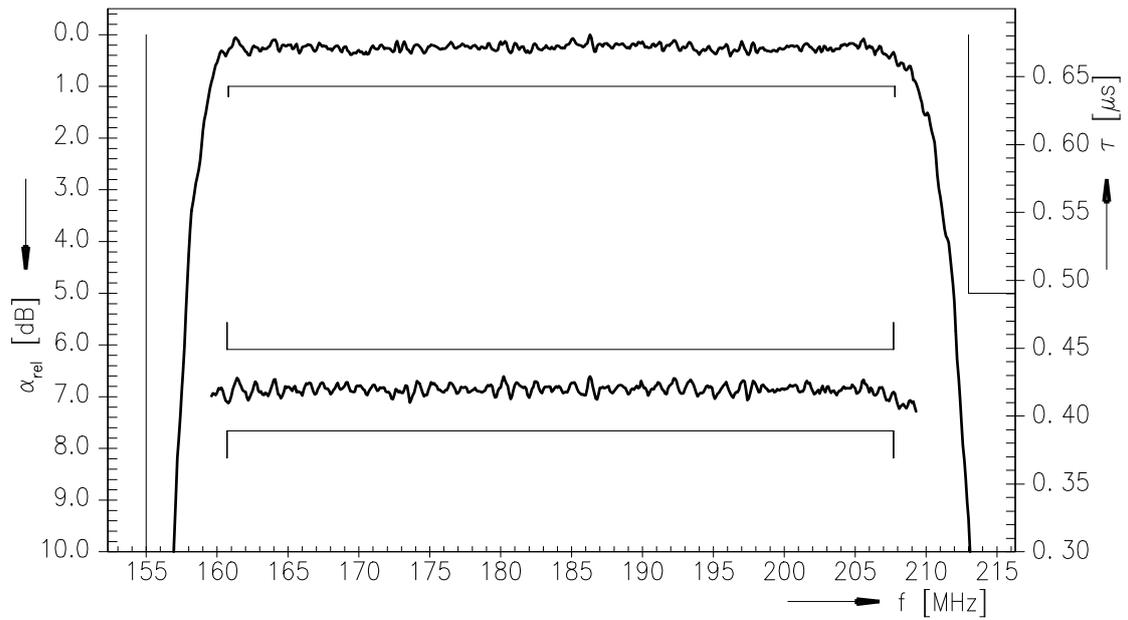
C_{p1}	=	33 pF
L_{p2}	=	15 nH
L_{s3}	=	3.6 nH
L_{s4}	=	3.6 nH
L_{p5}	=	15 nH
C_{p6}	=	33 pF

Element values depend upon board layout and properties.

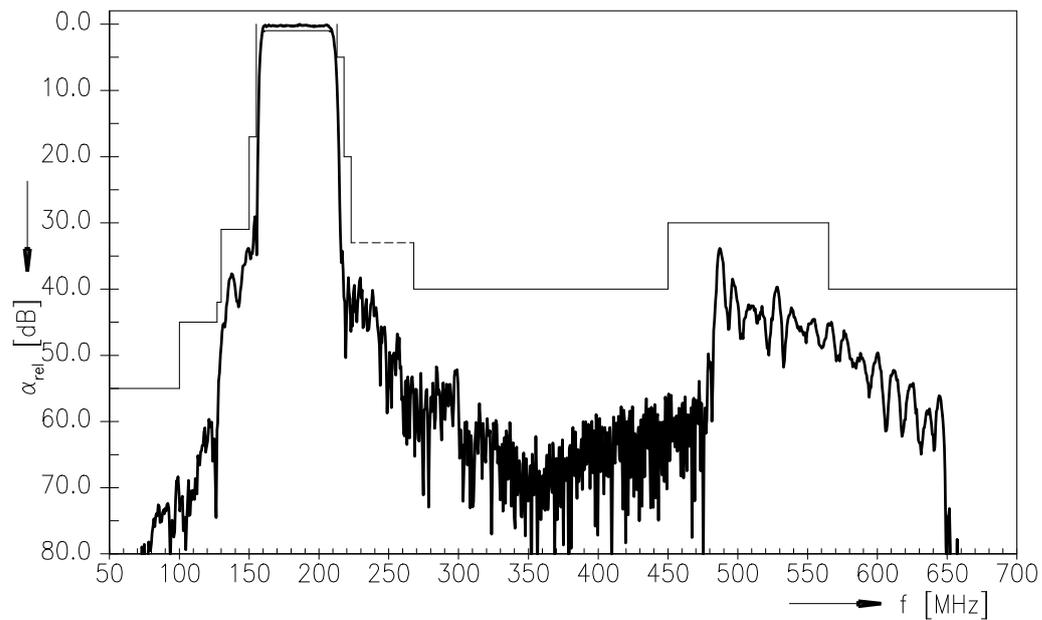
Maximum ratings

Operable temperature range	T	-40/+85	°C	
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
Input power (passband)	P _{IN}	10	dBm	

Transfer function (S21, narrowband, normalized)



Transfer function (S21, wideband, normalized)



SAW Components	B5258
SAW IF filter	184.3 MHz
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References

Type	B5258
Ordering code	B39181B5258H810
Marking and package	C61157-A7-A103
Packaging	F61074-V8170-Z000
Date codes	L_1126
S-parameters	B5258_NB.s2p, B5258_WB.s2p B5258_NB_UN.s4p, B5258_WB_UN.s4p see file header for port/pin assignment table
Soldering profile	S_6001
RoHS compatible	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 th , 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.
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.

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