



RF360
Europe GmbH

SAW Components

SAW band–stop filter

DVB-H / DVB-T

Series/type: B8746
Ordering code: B39901B8746P810

Date: July 06, 2015
Version: 2.2

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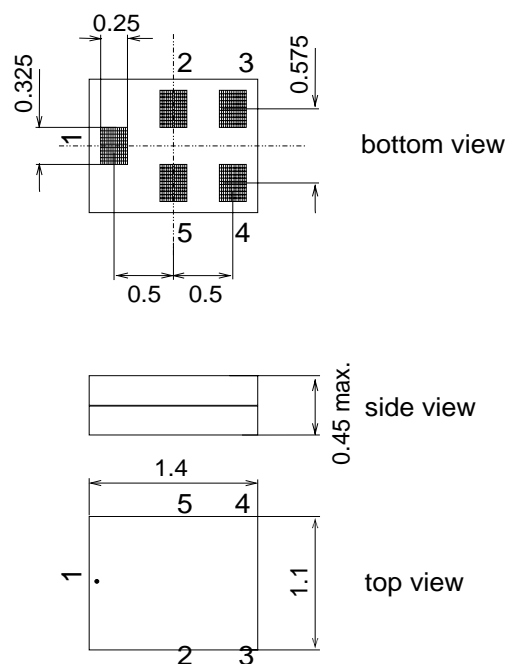
Data sheet


Application

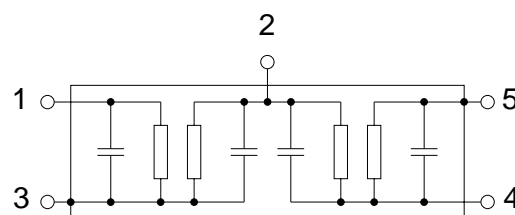
- Low-loss RF band-stop filter for DVB-H
- Low insertion loss
- Low amplitude ripple and group delay ripple
- Usable pass band width 790 MHz
- Impedance at input and output 50 Ω
- Unbalanced to unbalanced operation


Features

- Package size 1.4 × 1.1 mm²
- Maximum package height of 0.45 mm
- RoHS compatible
- Approximate weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- **Electrostatic Sensitive Device (ESD)**
- Ni, gold-plated terminals
- **Moisture Sensitivity Level 3**


Pin configuration

- 1 Input
- 2 Coupling pin
- 3 Ground
- 4 Output
- 5 Case ground



Data sheet

Characteristics (including losses in the matching network)

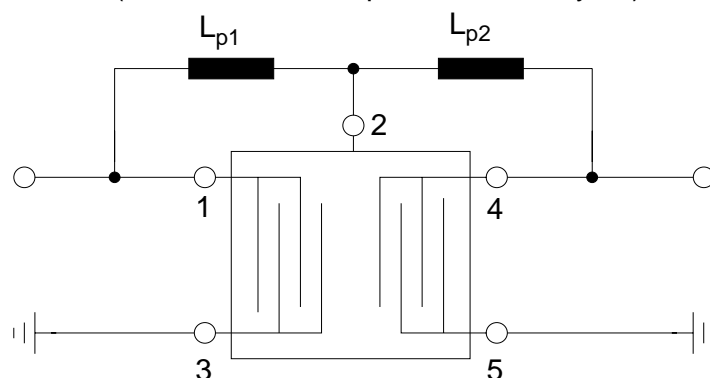
Temperature range for specification: $T = -30\text{ °C to }+85\text{ °C}$
 Terminating source impedance: $Z_S = 50\ \Omega$ and matching network
 Terminating load impedance: $Z_L = 50\ \Omega$ and matching network

		min.	typ. @ 25 °C	max.	
Nominal center frequency	f_N	—	847.00 897.50	—	MHz
Minimum insertion attenuation	α_{\min}	—	0.3	0.8	dB
	470.00 ... 790.00 MHz				
Maximum insertion attenuation	α_{\max}	—	0.5	1.0	dB
	47.00 ... 68.00 MHz	—	0.5	1.0	dB
	174.00 ... 230.00 MHz	—	0.5	1.0	dB
	470.00 ... 750.00 MHz	—	1.3	2.0	dB
	750.00 ... 790.00 MHz	—	3.1	4.0 ¹⁾	dB
Attenuation	α				
	832.00 ... 862.00 MHz	18.0 ²⁾	25.0	—	dB
	880.00 ... 915.00 MHz	17.0 ³⁾	26.0	—	dB
	1452.00 ... 1492.00 MHz	14.0	17.0	—	dB
	1710.00 ... 1990.00 MHz	25.0	30.0	—	dB

1) Specification for ILmax is 3.5dB for $-10\text{ °C to }+60\text{ °C}$.

2) Specification for Attenuation is 23dB for $-10\text{ °C to }+60\text{ °C}$.

3) Specification for Attenuation is 21dB for $-10\text{ °C to }+60\text{ °C}$.

Matching network (element values depend on PCB layout)


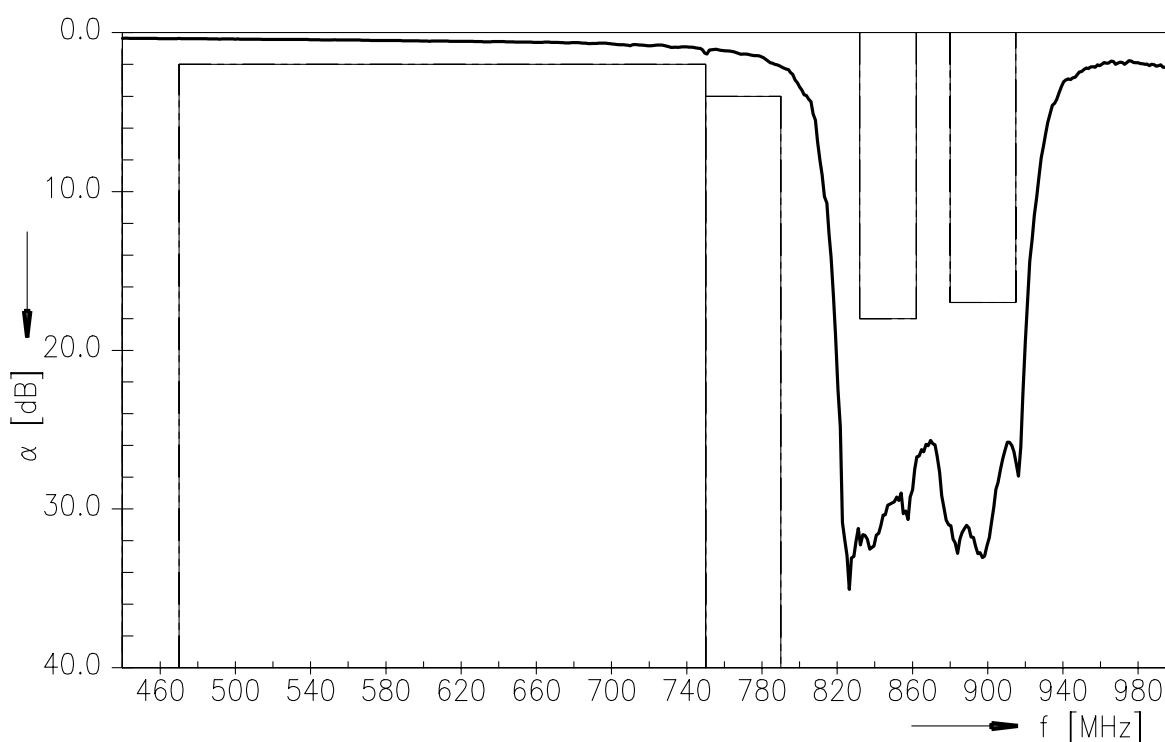
$$L_{p1} = 9.1\text{ n}$$

$$L_{p2} = 6.2\text{ n}$$


Maximum ratings

Operable temperature range	T	-40/+85	°C	machine model, 10 pulses
Storage temperature range	T _{stg}	-40/+85	°C	
DC voltage	V _{DC}	0	V	
ESD voltage	V _{ESD}	100 ¹⁾	V	
Source power at 832 ... 862 MHz 880 ... 915 MHz	P _{IN}	15.0	dBm	

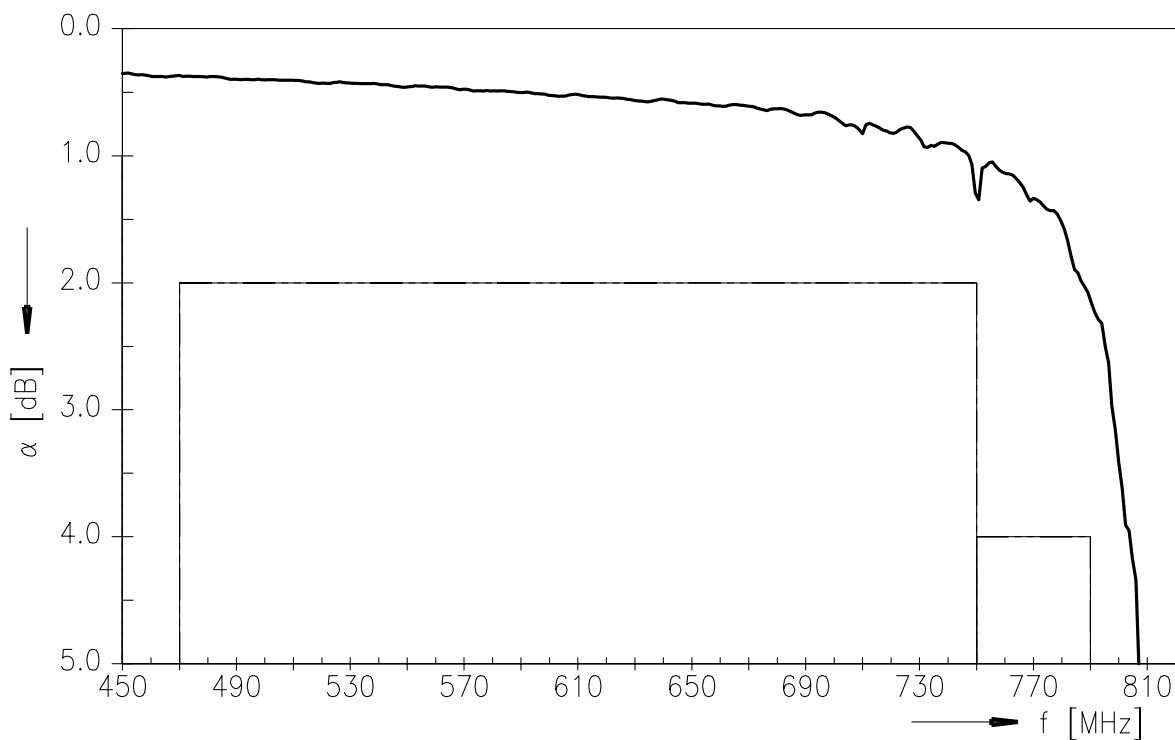
1) acc. to JESD22-A115B (machine model), 10 negative & 10 positive pulses.

Transfer function


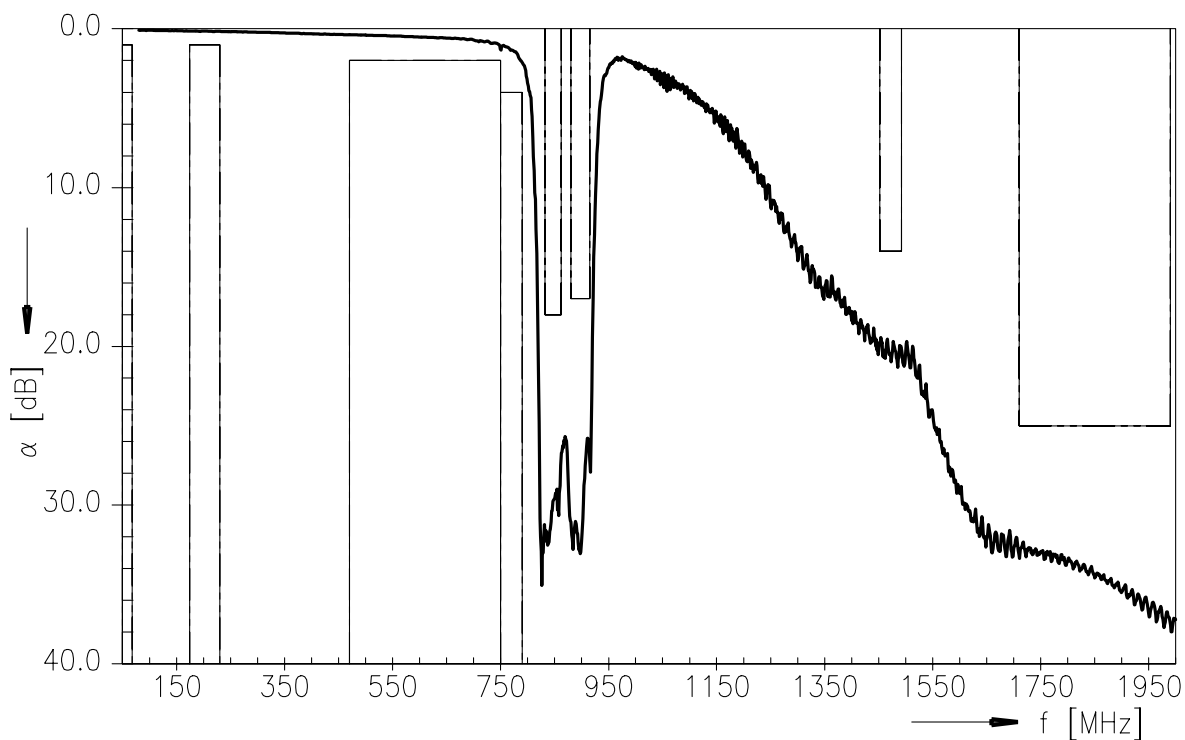
Data sheet



Transfer function (pass band)



Transfer function (wide band)




References

Type	B8746
Ordering code	B39901B8746P810
Marking and package	C61157-A8-A33
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B8746_WB_UN.s4p(unmatched) B8746_WB.s2p (matched) 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.
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.

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