

RF360 Europe GmbH

A Qualcomm – TDK Joint Venture

SAW Components

SAW Tx Filter

Narrow DCS Band Post PA

Series/type:	B8333
Ordering code:	B39172B8333P810
Date:	June 25, 2015
Version:	2.1

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SAW Components

SAW Tx Filter

Narrow DCS Band Post PA

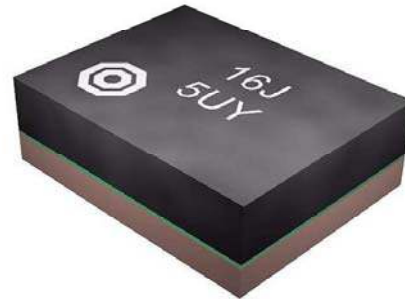
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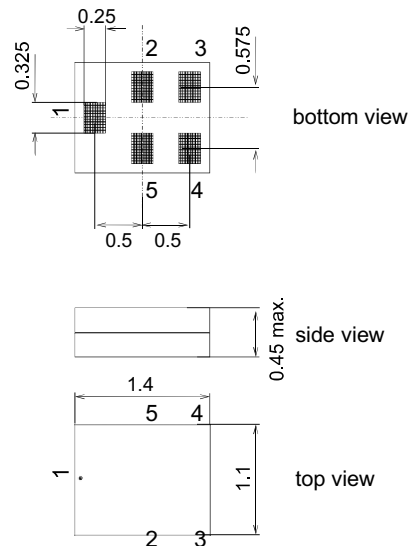
EPCOS AG is a TDK Group Company.

Data sheet
Application

- Narrow DCS Band Post PA Tx filter
- Low-loss RF filter for mobile telephone Narrow DCS Band systems
- Usable passband 45 MHz
- 50 Ω / 50 Ω unbalanced to unbalanced operation
- Low insertion attenuation


Features

- Package size 1.4 x 1.1 mm²
- Max. package height 0.45 mm
- RoHS compatible
- Approx. weight 0.003 g
- Package for **Surface Mount Technology (SMT)**
- Ni, Au-plated terminals
- **Electrostatic Sensitive Device (ESD)**
- **Moisture Sensitivity Level 3**


Pin configuration

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

Data sheet
Characteristics

Temperature range for specification:	T	=	-30 °C to +90 °C
Terminating source impedance:	Z _S	=	50Ω
Terminating load impedance:	Z _L	=	50 Ω 9.0 nH

Characterisitcs		min.	typ. @ 25 °C	max.	
Center frequency	f _C	—	1732.5	—	MHz
Maximum insertion attenuation 1710.0 ... 1755.0 MHz	α _{max}	—	1.1	1.6	dB
Amplitude ripple (p-p) 1710.0 ... 1755.0 MHz	Δα	—	0.5	1.0	dB
Input VSWR 1710.0 ... 1755.0 MHz		—	1.6	2.0	
Output VSWR 1710.0 ... 1755.0 MHz		—	1.6	2.0	
Attenuation	α				
10.0 ... 1574.0 MHz		25	33	—	dB
1574.0 ... 1607.0 MHz		25	34	—	dB
1805.0 ... 1850.0 MHz		35	39	—	dB
1850.0 ... 1880.0 MHz		33	37	—	dB
1880.0 ... 1920.0 MHz		32	36	—	dB
2010.0 ... 2170.0 MHz		30	34	—	dB
2300.0 ... 2400.0 MHz		28	33	—	dB
2496.0 ... 2690.0 MHz		28	34	—	dB
3415.0 ... 3515.0 MHz		30	39	—	dB
5125.0 ... 5270.0 MHz		25	35	—	dB
5270.0 ... 6000.0 MHz		25	36	—	dB

Data sheet
Maximum ratings

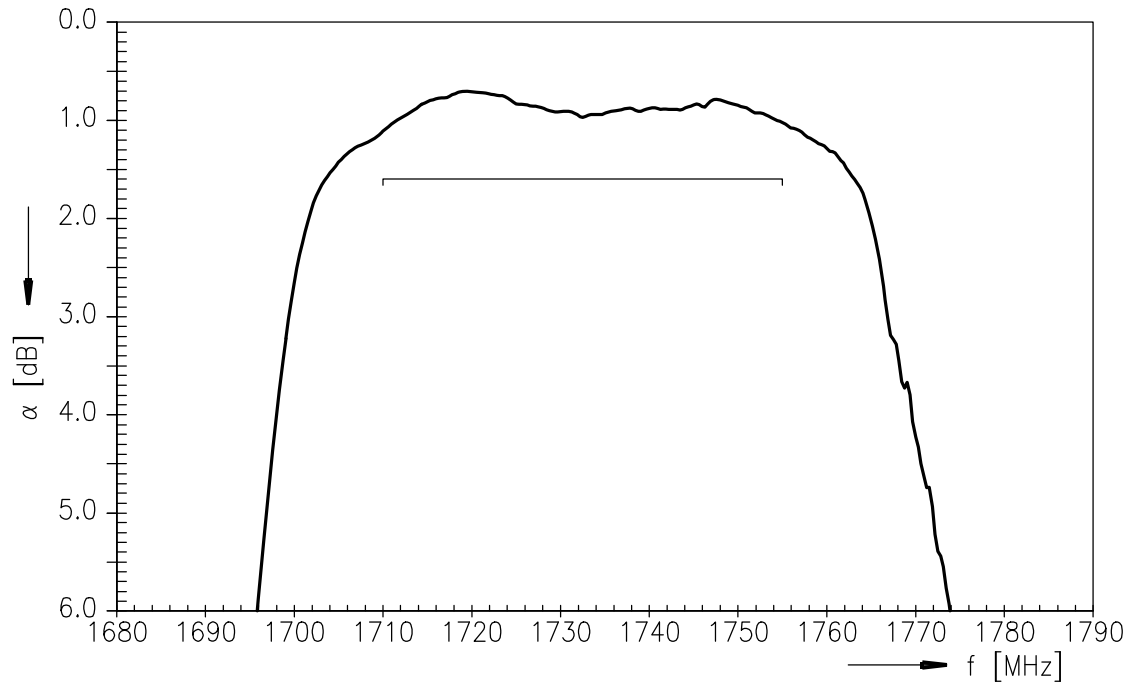
Storage temperature range	T_{stg}	-40/+85	°C	Machine Model source and load impedance 50 Ω } GSM 1:8 signal $T = 55^\circ\text{C}$, 5000 h continuous wave $T = 55^\circ\text{C}$, 2000h
DC voltage	V_{DC}	5 ¹⁾	V	
ESD voltage	V_{ESD}	50 ²⁾	V	
Input power	P_{IN}			
1710.0 - 1755.0 MHz		33	dBm	} GSM 1:8 signal $T = 55^\circ\text{C}$, 5000 h continuous wave $T = 55^\circ\text{C}$, 2000h
elsewhere		10	dBm	
1710.0 - 1755.0 MHz		26	dBm	

1) 168h Damp Heat Steady State acc. to IEC 60068-2-67 Cy

2) acc. to JESD22-A115B (MM - Machine Model), 10 negative and 10 positive pulses.

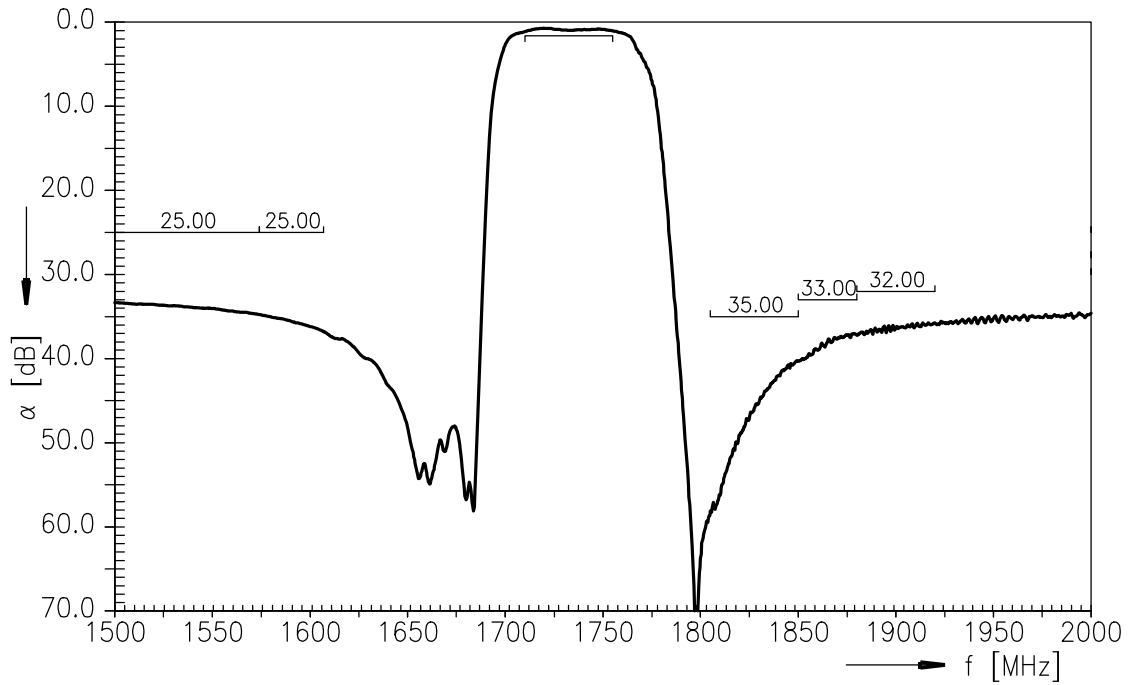
Data sheet

Frequency response (passband)

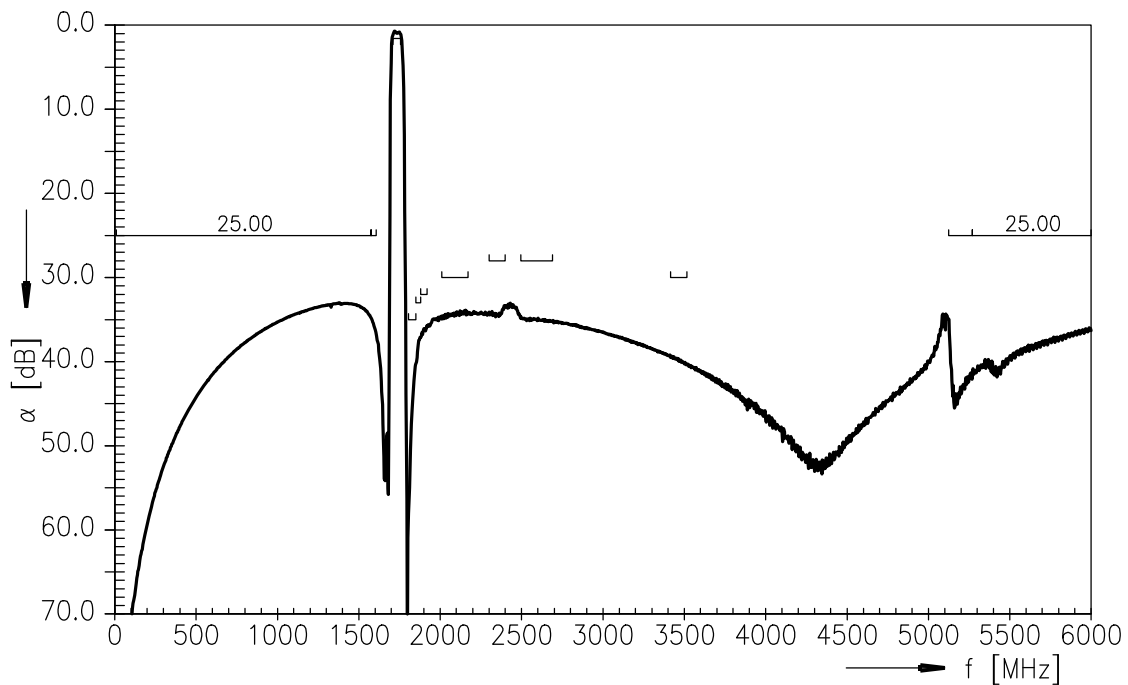


Data sheet

Frequency response (narrowband)

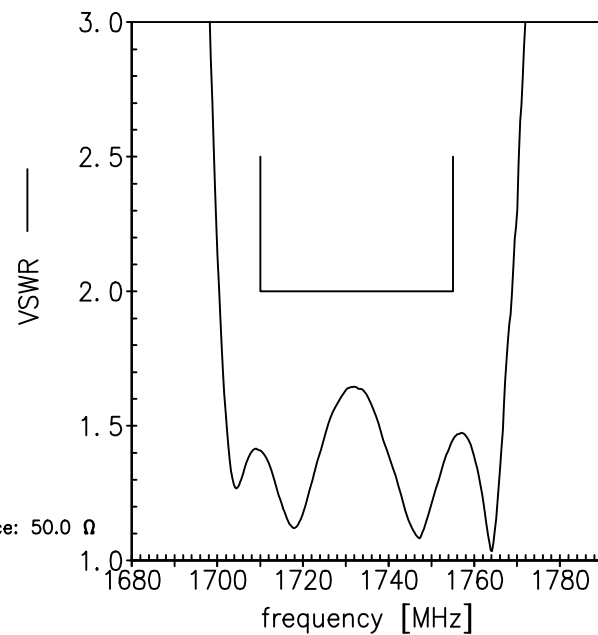
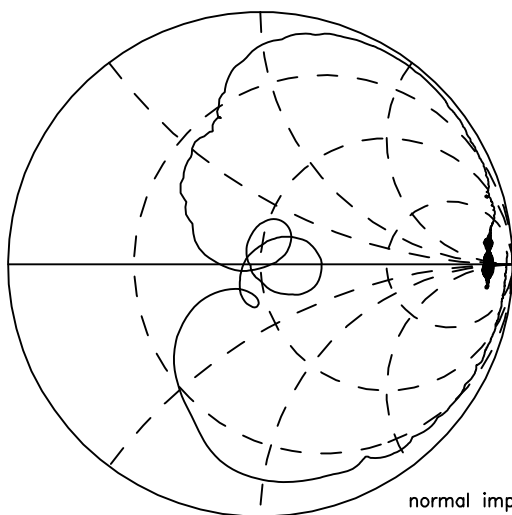
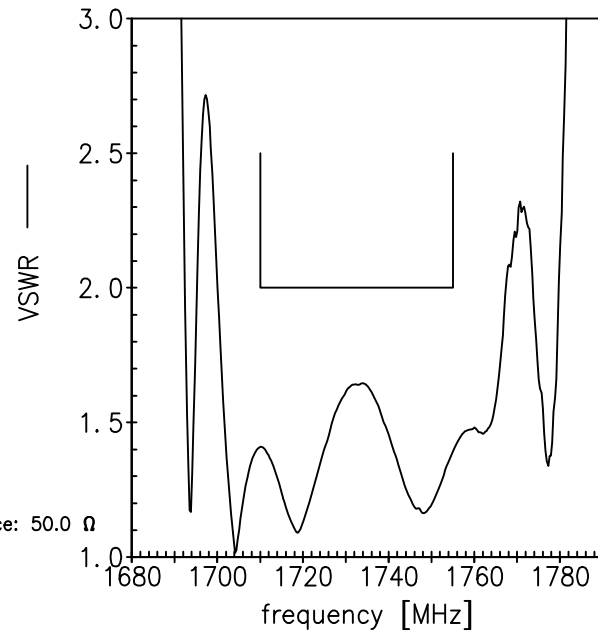
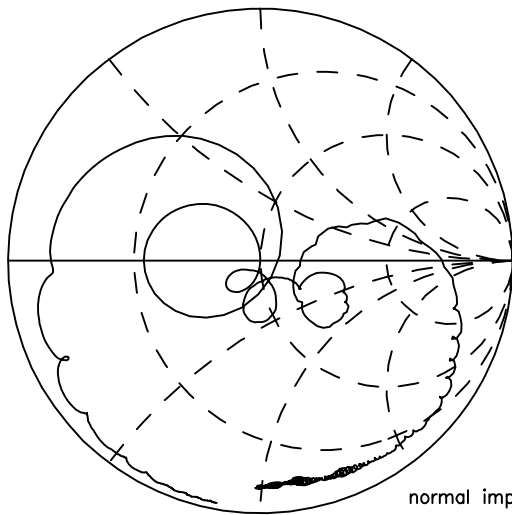


Frequency response (wideband)



Data sheet

Smith Chart



SAW Components	B8333
SAW Tx Filter	1732.5 MHz

Data sheet

References

Type	B8333
Ordering code	B39172B8333P810
Marking and package	C61157-A8-A63
Packaging	F61074-V8237-Z000
Date codes	L_1126
S-parameters	B8333_NB_UN.s2p, B8333_WB_UN.s2p See file header for pin/port assignment.
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 further information please contact your local EPCOS sales office or visit our webpage at www.epcos.com .

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