



SAW filters for infrastructure systems

Series/Type: B3815

The following products presented in this data sheet are being withdrawn.

Ordering Code	Substitute Product	Date of Withdrawal	Deadline Last Orders	Last Shipments
B39391B3815Z810		2013-03-08	2013-12-31	2014-03-31

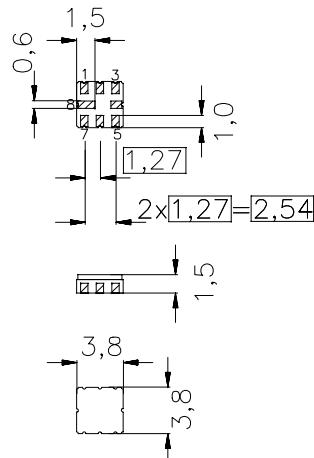
For further information please contact your nearest EPCOS sales office, which will also support you in selecting a suitable substitute. The addresses of our worldwide sales network are presented at www.epcos.com/sales.

Features

- Low-loss filter for Trunked Radio
- Usable bandwidth 10 MHz
- No matching required for operation at $50\ \Omega$
- Unbalanced to unbalanced or unbalanced to balanced operation
- Package for Surface Mounted Technology (SMT)
- Hermetically sealed ceramic package

Terminals

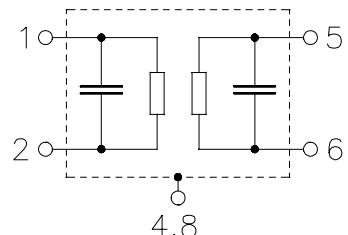
- Gold-plated



typ. Dimensions in mm, approx. weight 0,07 g

Pin configuration

5	Input
1	Output / Output balanced
2	Output ground / Output balanced
3, 6, 7	Ground
4, 8	Input ground / Case ground



Type	Ordering code	Marking and Package according to	Packing according to
B3815	B39391-B3815-Z810	C61157-A7-A46	F61074-V8037-Z000

Electrostatic Sensitive Device (ESD)
Maximum ratings

Operable temperature range	T_A	-30 / +70	°C	
Storage temperature range	T_{stg}	-40 / +85	°C	
DC voltage	V_{DC}	0	V	
ESD voltage	V_{ESD}	100	V	
Source power	P_s	15	dBm	source impedance $50\ \Omega$

**SAW Components****B3815****Low-Loss Filter****385,0 MHz****Data Sheet****Characteristics**

Operating temperature range:

 $T_A = +15 \dots +35^\circ\text{C}$

Terminating source impedance:

 $Z_S = 50 \Omega$ unbalanced or unbalanced to balanced

Terminating load impedance:

 $Z_L = 50 \Omega$ unbalanced or unbalanced to balanced

		min.	typ.	max.	
Nominal frequency	f_N	—	385,0	—	MHz
Maximum insertion attenuation 380,0 MHz ... 390,0 MHz	α_{\max}	—	2,4	3,5	dB
Amplitude ripple (p-p) 380,0 MHz ... 390,0 MHz	$\Delta\alpha$	—	0,5	1,5	dB
Return loss (Input and Output) 380,0 MHz ... 390,0 MHz		10,0	12,0	—	dB
VSWR 380,0 MHz ... 390,0 MHz		—	1,7:1	2,0:1	
Absolute attenuation	α_{abs}				
0,1 MHz ... 350,0 MHz		40	50	—	dB
350,0 MHz ... 370,0 MHz		13	35	—	dB
400,0 MHz ... 430,0 MHz		10	20	—	dB
430,0 MHz ... 760,0 MHz		44	54	—	dB
760,0 MHz ... 1496,0 MHz		30	35	—	dB
1496,0 MHz ... 2600,0 MHz		20	25	—	dB
2600,0 MHz ... 4000,0 MHz		5	6	—	dB
Symmetry in band					
$ S_{31} / S_{21} $ 380,0 ... 390,0 MHz		-0,5	0,5	1,5	dB
$\arg(S_{31}/S_{21})$ 380,0 ... 390,0 MHz		170	180	190	°
Temperature coefficient of frequency	TC_f	—	-70	—	ppm/K

**SAW Components****B3815****Low-Loss Filter****385,0 MHz****Data Sheet****Characteristics**

Operating temperature range:

 $T_A = -30 \dots +70 \text{ }^{\circ}\text{C}$

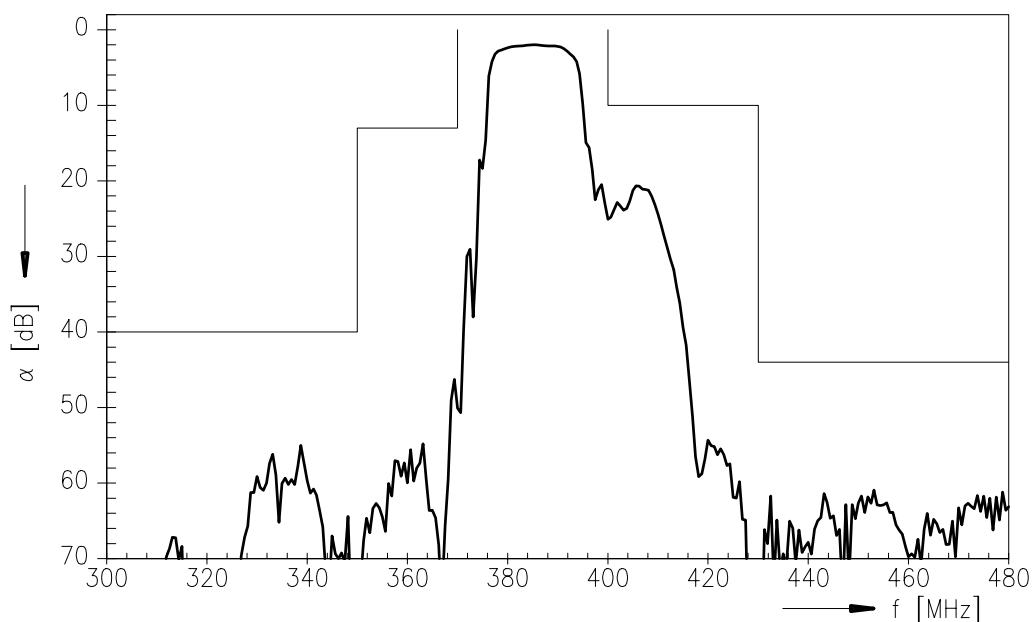
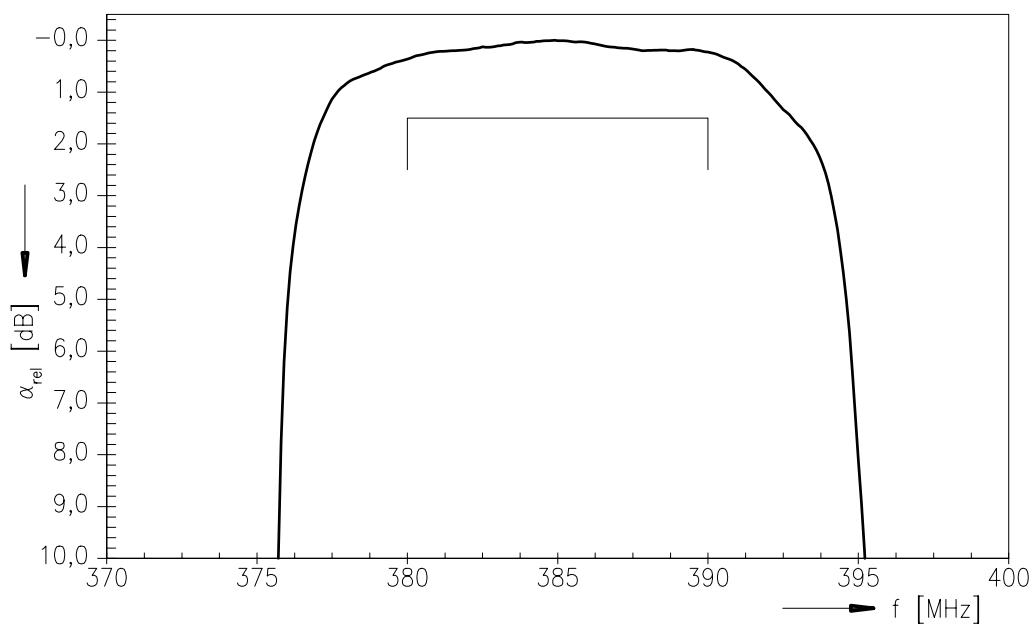
Terminating source impedance:

 $Z_S = 50 \Omega$ unbalanced or unbalanced to balanced

Terminating load impedance:

 $Z_L = 50 \Omega$ unbalanced or unbalanced to balanced

		min.	typ.	max.	
Nominal frequency	f_N	—	385,0	—	MHz
Maximum insertion attenuation 380,0 MHz ... 390,0 MHz	α_{\max}	—	2,6	4,0	dB
Amplitude ripple (p-p) 380,0 MHz ... 390,0 MHz	$\Delta\alpha$	—	0,7	2,0	dB
Return loss (Input and Output) 380,0 MHz ... 390,0 MHz		10,0	12,0	—	dB
VSWR 380,0 MHz ... 390,0 MHz		—	1,8:1	2,0:1	
Absolute attenuation	α_{abs}				
0,1 MHz ... 350,0 MHz		40	50	—	dB
350,0 MHz ... 370,0 MHz		13	25	—	dB
400,0 MHz ... 430,0 MHz		10	17	—	dB
430,0 MHz ... 760,0 MHz		44	52	—	dB
760,0 MHz ... 1496,0 MHz		30	35	—	dB
1496,0 MHz ... 2600,0 MHz		20	25	—	dB
2600,0 MHz ... 4000,0 MHz		5	6	—	dB
Symmetry in band					
$ S_{31} / S_{21} $ 380,0 ... 390,0 MHz		-0,5	0,5	1,5	dB
$\arg(S_{31}/S_{21})$ 380,0 ... 390,0 MHz		170	180	190	°
Temperature coefficient of frequency	TC_f	—	- 70	—	ppm/K

Data Sheet
Transfer function

Normalized transfer function (pass band; +15 °C ... +35 °C)




SAW Components

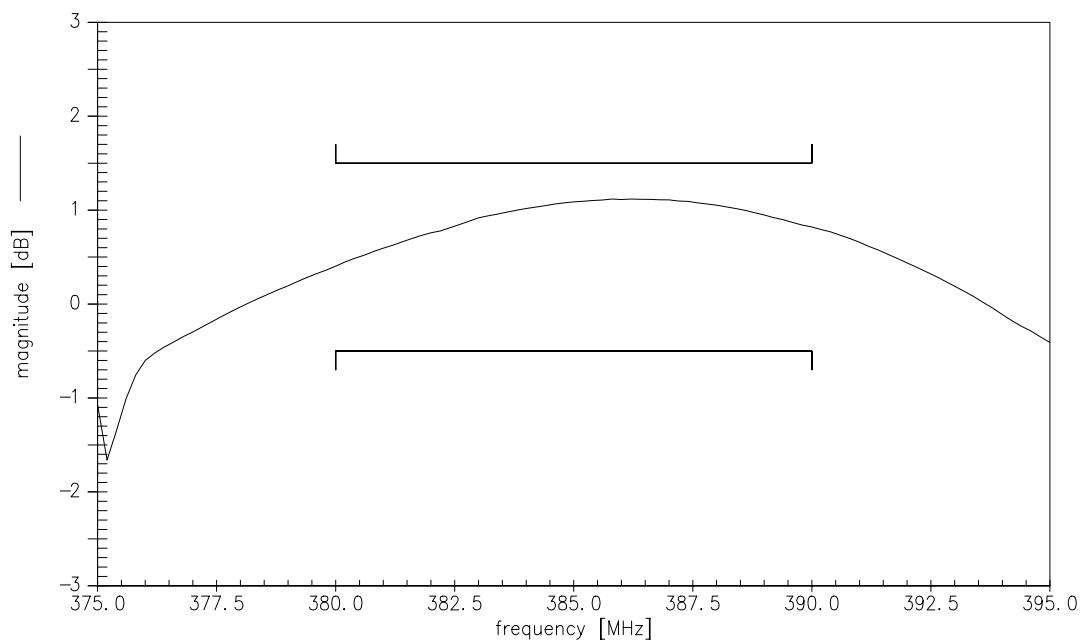
B3815

Low-Loss Filter

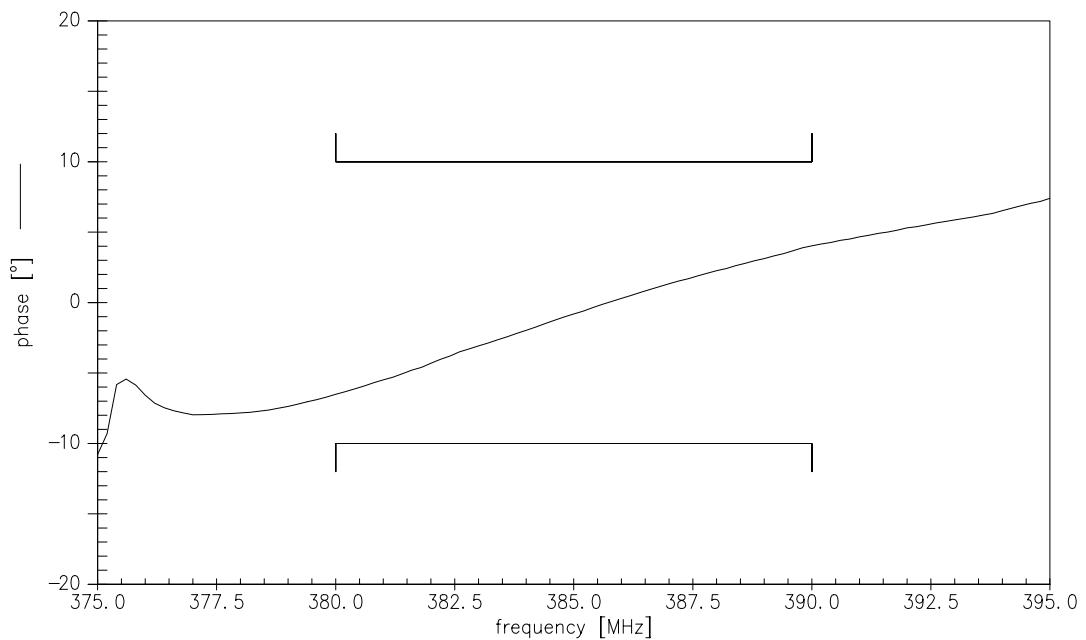
385,0 MHz

Data Sheet

Amplitude symmetry $|S_{31}|/|S_{21}|$



Phase symmetry $\arg(S_{31}/S_{21}) - 180^\circ$





SAW Components

B3815

Low-Loss Filter

385,0 MHz

Data Sheet

Published by EPCOS AG

Surface Acoustic Wave Components Division, SAW MC IS

P.O. Box 80 17 09, 81617 Munich, GERMANY

© EPCOS AG 2002. Reproduction, publication and dissemination of this brochure and the information contained therein without EPCOS' prior express consent is prohibited.

Purchase orders are subject to the General Conditions for the Supply of Products and Services of the Electrical and Electronics Industry recommended by the ZVEI (German Electrical and Electronic Manufacturers' Association), unless otherwise agreed.

This brochure replaces the previous edition.

For questions on technology, prices and delivery please contact the Sales Offices of EPCOS AG or the international Representatives.

Due to technical requirements components may contain dangerous substances. For information on the type in question please also contact one of our Sales Offices.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[EPCOS:](#)

[B39391B3815Z810](#)