EPCOS

SAW Components

Data Sheet B2581

Data Sheet

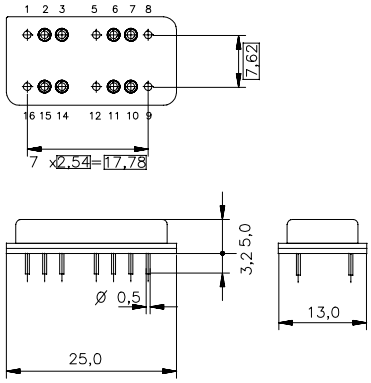
Metal package **DIP16**

Features

- Spectrum shaping filter for digital radio systems
- High performance passband
- Constant group delay
- Hermetically sealed metal package

Terminals

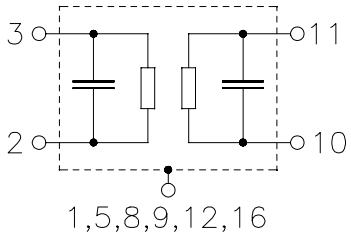
- Gold plated NiFeCo alloy



Dimensions in mm, approx. weight 4,2 g

Pin configuration

2	Input - ground
3	Input
10	Output - ground
11	Output
1, 5, 8, 9, 12, 16	Case - ground
6, 7, 14 15	Not connected



Type	Ordering code	Marking and Package according to	Packing according to
B2581	B39700-B2581-E110	C61157-A7-A11	F61074-V8073-Z000

Electrostatic **S**ensitive **D**evice (**ESD**)

Maximum ratings

Operable temperature range	T	– 40/+ 85	˚C	
Storage temperature range	T_{stg}	– 40/+ 85	˚C	
DC voltage	V_{DC}	0	V	
Source power	P_s	15	dBm	source impedance 50 Ω

Data Sheet

Characteristics

Operating temperature: T = 35 ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 50 Ω
Group delay aperture: 2,5 MHz

		min.	typ.	max.	
Center frequency (center between 6 dB points)	f_C	69,85	70,00	70,15	MHz
Insertion attenuation at f_C	α_C	—	39,8	41,0	dB
Pass band tilt		—	0,006	0,02	dB/MHz
Deviation from theoretical frequency resp.[1)]	$\Delta\alpha$				
f_C ... $f_C \pm f_Y$		—	± 0,2	± 0,3	dB
61,00 ... 75,00 MHz		—	± 0,1	± 0,2	dB
Phase ripple (p-p)	$\Delta\varphi$				
f_C ... $f_C \pm f_Y$		—	2,2	3,5	˚
61,00 ... 75,00 MHz		—	1,2	2,0	˚
Relative attenuation (relative to α_C)	α_{rel}				
30,00 ... 54,50 MHz		34,0	40,0	—	dB
85,50 ... 110,00 MHz		32,0	36,0	—	dB
Reflected wave signal suppression					
2,0 µs ... 1,2 µs before main pulse		50,0	56,0	—	dB
1,2 µs ... 6,0 µs after main pulse		50,0	61,0	—	dB
Group delay at f_C	τ_C	—	1,55	—	µs
Group delay ripple (p-p)	$\Delta\tau$				
f_C ... $f_C \pm f_Y$		—	3,3	6,0	ns
Nyquist frequency	f_Y	—	11,96	—	MHz
Roll-off factor	a	—	0,29	—	
Partitioning factor	p	—	0,5	—	
Temperature coefficient of frequency	TC_f	—	– 87	—	ppm/K

1) see next page

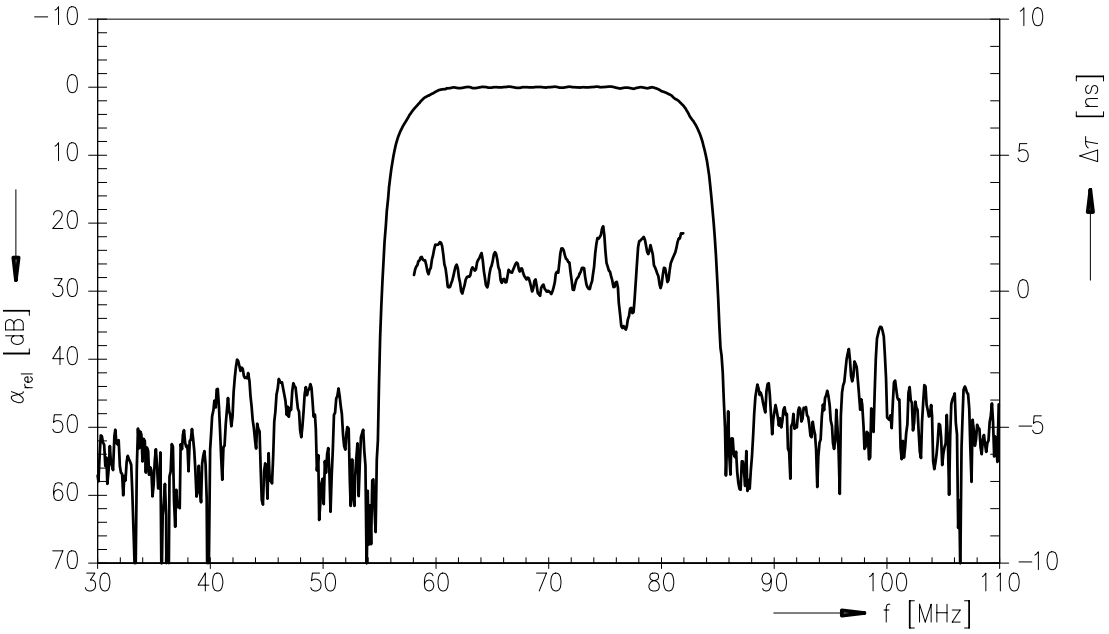
1) Theoretical frequency response:

$$H(x) = (S(x))^p$$

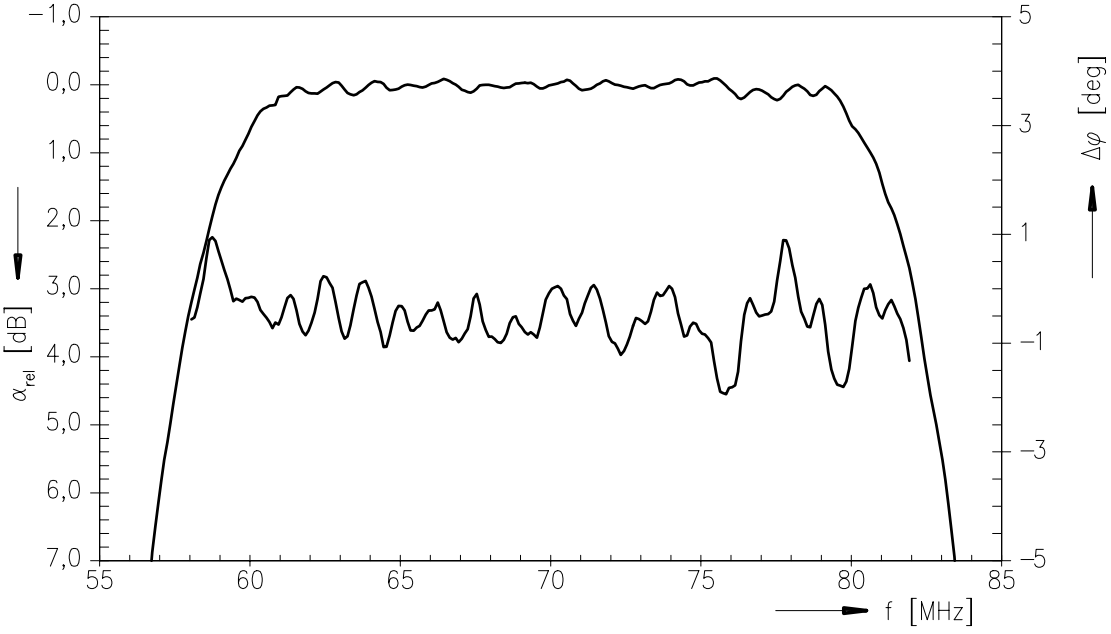
$$S(x) = \begin{cases} 1 & \text{for } |x| \le 1-a \\ (1+\cos(\pi\cdot(|x|-1+a)/2a))/2 & \text{for } 1-a < |x| < 1+a \\ 0 & \text{for } 1+a \le |x| \end{cases}$$

$$x = (f-f_C)/f_Y$$

Normalized frequency response



Normalized frequency response



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