Standard

- DAB
  Digital audio broadcasting

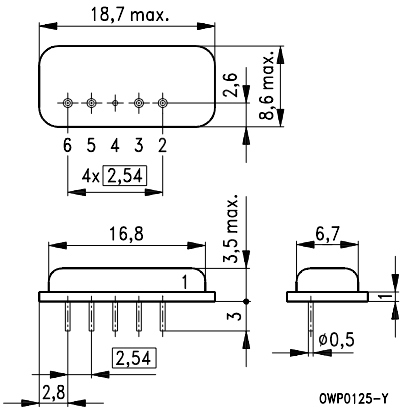
Features

- Bandpass filter for DAB applications
- Constant group delay
- Hermetically sealed metal package

Terminals

- Tinned NiFeCo alloy

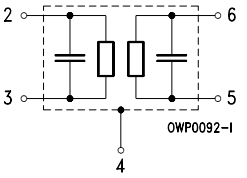
Metal package **SIP 6 M**



Dimensions in mm, approx. weight 3,0 g

Pin configuration

2 Input
3 Input – ground
5 Output
6 Output
4 Case – ground



Type	Ordering code	Marking
B 512	B39390-B512-X110	Type, date code, pin 1

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

Maximum ratings

Ambient temperature	T_A	– 25/+ 85	˚C	—
Storage temperature	T_{stg}	– 40/+ 85	˚C	—
DC voltage	V_{DC}	0	V	—
Source power	P_s	15	dBm	source impedance 50 Ω

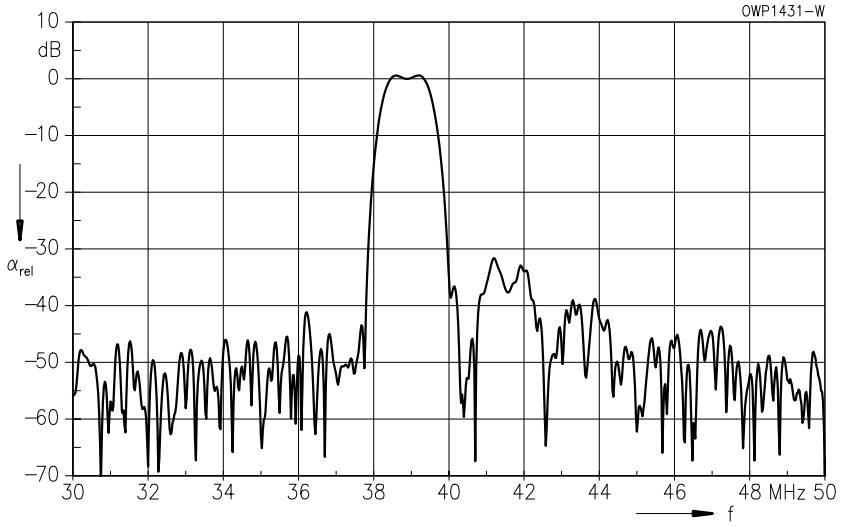
Characteristics

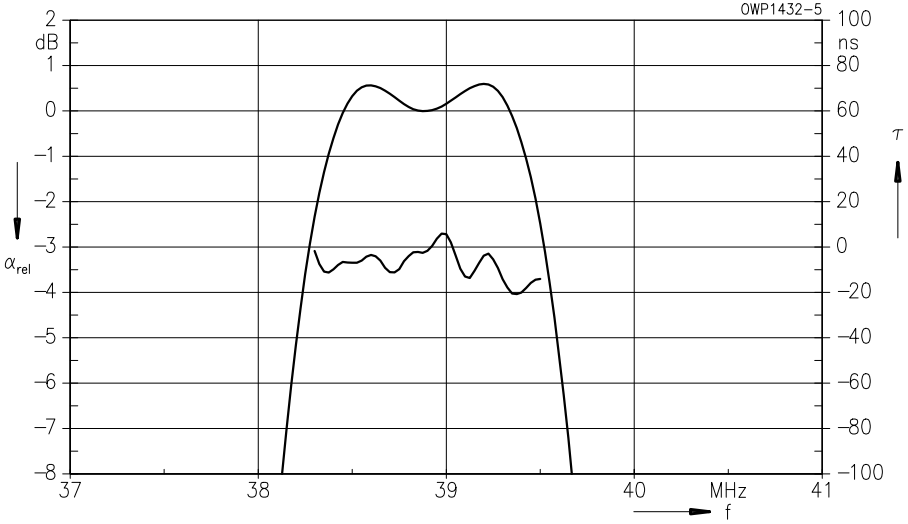
Ambient temperature T_A = 25 °C
Source impedance Z_S = 50 Ω and matching network
Load impedance Z_L = 50 Ω and matching network
Group delay aperture 80 kHz

		min.	typ.	max.	
Nominal frequency	f_N	—	38,912	—	MHz
Insertion attenuation at f_N	α_N	—	22,00	—	dB
Pass bandwidth					
$\alpha_{rel} \leq$ 3 dB	B_{3dB}	1,15	1,25	1,35	MHz
$\alpha_{rel} \leq$ 10 dB	B_{10dB}	—	1,60	1,75	MHz
$\alpha_{rel} \leq$ 20 dB	B_{20dB}	—	1,90	2,05	MHz
$\alpha_{rel} \leq$ 30 dB	B_{30dB}	—	2,10	—	MHz
Relative attenuation (relative to α_N)	α_{rel}				
Lower sidelobe 30,00 … 37,40 MHz		38,00	41,00	—	dB
Upper sidelobe 40,40 … 42,40 MHz		28,00	31,00	—	dB
42,40 … 50,00 MHz		34,00	37,00	—	dB
Reflected wave signal suppression					
2,0 µs … 6,0 µs after main pulse		40,0	45,0	—	dB
Group delay at f_N	τ_N	—	1,75	—	µs
Group delay ripple (p-p) 38,30 … 39,50 MHz	$\Delta\tau$	—	25	—	ns
Temperature coefficient of frequency	TC_f	—	– 0,035	—	ppm/K [2]

Matching network:
Input: Serial coil; L 1 = 3,3 µH, Q = 30
Output: Serial coil; L 2 = 6,8 µH, Q = 30

Frequency response





Standard

- DAB

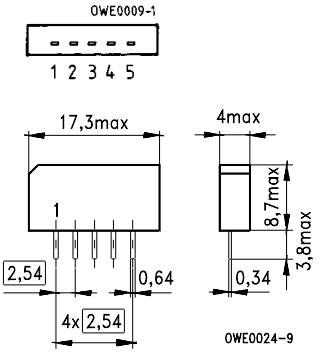
Features

- IF filter for Digital Audio Broadcasting
- Low group delay ripple

Terminals

- Tinned CuFe alloy

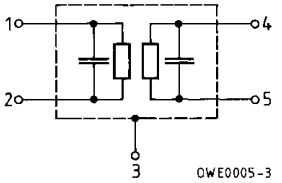
Plastic package **SIP 5 K**



Dimensions in mm, approx. weight 1,0 g

Pin configuration

1 Input
2 Input – ground
3 Chip carrier – ground
4 Output
5 Output



Type	Ordering code	Marking
X 6922 M	B39389-X6922-M100	Type, date code, pin 1

Maximum ratings

Ambient temperature	T_A	– 25/+ 65	˚C	—
Storage temperature	T_{stg}	– 25/+ 85	˚C	—
DC voltage	V_{DC}	12	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals

Characteristics

Ambient temperature T_A = 25 (40) ˚C
Source impedance Z_S = 50 Ω
Load impedance Z_L = 2 kΩ || 3 pF
Group delay aperture 50 kHz

		min.	typ.	max.	
Center frequency (center betwenn 10 dB points)	f_c	—	(38,912)	—	MHz
Insertion attenuation	α				
Reference level for the following data 38,922 (38,912) MHz		17,2	18,7	20,2	dB
Pass bandwidth					
$\alpha_{rel} \leq$ 3 dB	B_{3dB}	—	1,5	—	MHz
$\alpha_{rel} \leq$ 30 dB	B_{30dB}	—	2,65	—	MHz
Relative attenuation	α_{rel}				
Lower sidelobe					
30,01 … 36,02 (30,00 … 36,01) MHz		43,0	48,0	—	dB
36,02 … 37,22 (36,01 … 37,21) MHz		38,0	44,0	—	dB
Upper sidelobe					
40,62 … 41,82 (40,61 … 41,81) MHz		38,0	43,0	—	dB
41,82 … 50,01 (41,81 … 50,00) MHz		41,0	45,0	—	dB
Reflected wave signal suppression					
1,6 µs … 6,0 µs after main pulse (test pulse: 250 ns, carrier frequency: 38,922 MHz)		42,0	55,0	—	dB
Feedthrough signal suppression					
1,5 µs … 1,4 µs before main pulse (test pulse: 250 ns, carrier frequency: 38,922 MHz))		50,0	56,0	—	dB
Group delay ripple (p-p)	$\Delta\tau$				
38,12 … 39,72 (38,11 … 39,71) MHz		—	35	—	ns
Impedance at 38,922 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	1,0 || 25,3	—	—
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	0,9 || 15,0	—	—
Temperature coefficient of frequency	TC_f	—	– 18	—	ppm/K

Frequency response