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SAW Components

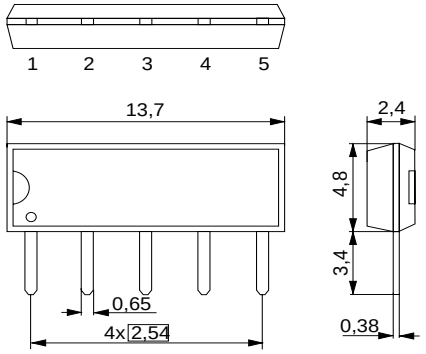
Data Sheet X 7256 D



Duroplast package **SIP5D**

Features

- IF filter for ISDB-T
- Switchable between two bandwidths
- Standard IC package



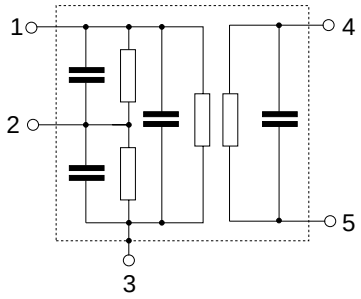
Dimensions in mm, approx. weight 0,5 g

Terminals

- Tinned CuFe alloy

Pin configuration

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



Type	Ordering code	Marking and package according to	Packing according to
X 7256 D	B39570-X7256-N201	C61157-A1-A21	F61074-V8049-Z000

Maximum ratings

Operable temperature range	T_A	–25/+65	˚C	
Storage temperature range	T_{stg}	–40/+85	˚C	
DC voltage	V_{DC}	5	V	between any terminals
AC voltage	V_{pp}	10	V	between any terminals

Characteristics of channel 1 (switching pin 2 connected to ground)

Reference temperature: T_A = 25 (45) ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 2 kΩ || 3 pF|| 3 pF

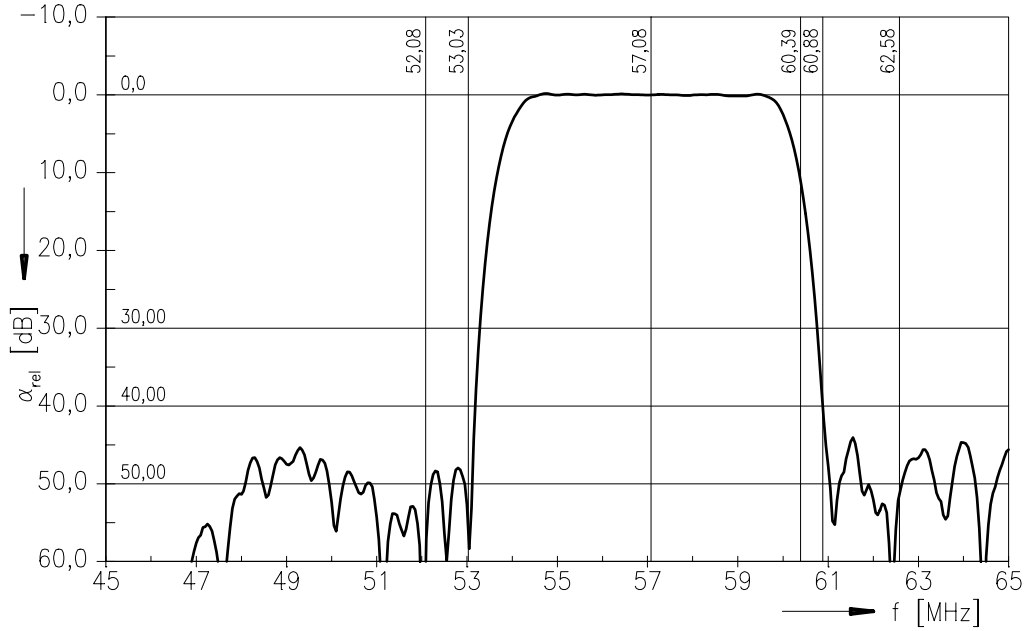
		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the following data	57,08 (57,00) MHz	12,0	13,5	15,0	dB
Pass bandwidth					
α_{rel} ≤3 dB	B_{3dB}	—	6,0	—	MHz
α_{rel} ≤30 dB	B_{30dB}	—	7,5	—	MHz
Relative attenuation	α_{rel}				
	54,53 (54,45) MHz	–0,9	0,1	1,1	dB
	59,53 (59,45) MHz	–1,0	0,0	1,0	dB
	54,03 (53,95) MHz	—	3,1	—	dB
	60,03 (59,95) MHz	—	2,8	—	dB
	60,39 (60,31) MHz	—	11,0	—	dB
Lower sidelobe					
45,08 ... 52,08	(45,00 ... 52,00) MHz	36,0	44,0	—	dB
52,08 ... 53,03	(52,00 ... 52,95) MHz	38,0	46,0	—	dB
Upper sidelobe					
60,88 ... 62,58	(60,80 ... 62,50) MHz	28,0	34,0	—	dB
62,58 ... 65,08	(62,50 ... 65,00) MHz	37,0	43,0	—	dB
Reflected wave signal suppression					
1,2 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 57,08 MHz)		42,0	52,0	—	dB
Feedthrough signal suppression					
1,3 µs ... 1,2 µs before main pulse (test pulse 250 ns, carrier frequency 57,08 MHz)		—	50,0	—	dB
Group delay ripple (p-p)	Δτ				
54,53 ... 59,53	(54,45 ... 59,45) MHz	—	60	—	ns
Impedance at 57,08 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	0,4‖19,0	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	0,6‖ 6,0	—	kΩ || pF
Temperature coefficient of frequency	TC_f	—	–72	—	ppm/K

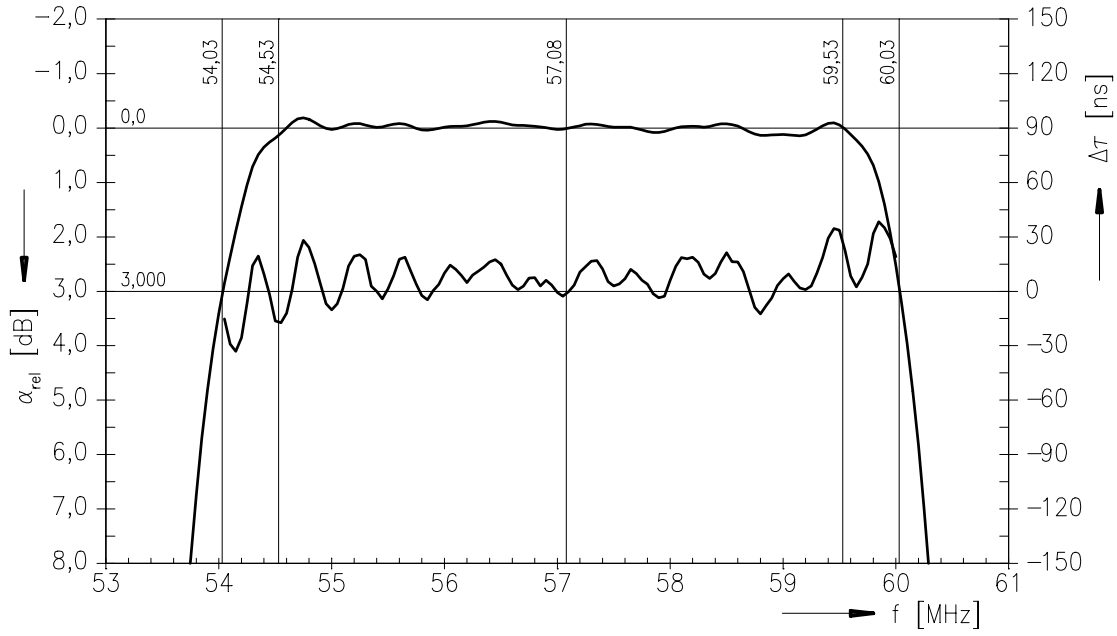
Characteristics of channel 2 (switching pin 2 connected to pin 1)

Reference temperature: T_A = 25 (45) ˚C
Terminating source impedance: Z_S = 50 Ω
Terminating load impedance: Z_L = 2 kΩ || 3 pF || 3 pF

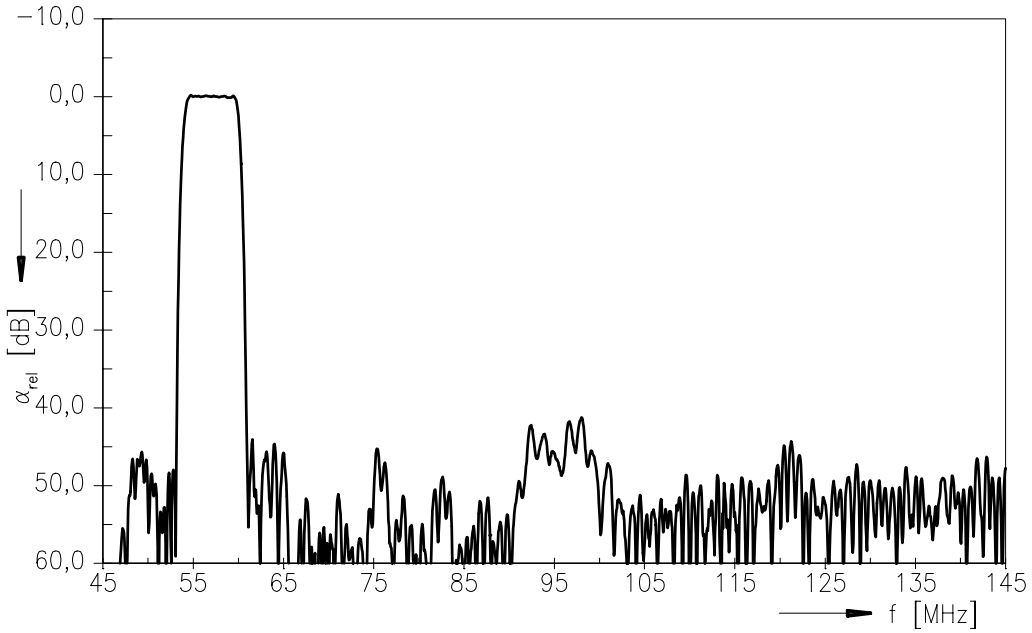
		min.	typ.	max.	
Insertion attenuation	α				
Reference level for the following data	57,08 (57,00) MHz	10,7,	12,2	13,7	dB
Pass bandwidth					
α_{rel} ≤3 dB	B_{3dB}	—	4,1	—	MHz
α_{rel} ≤30 dB	B_{30dB}	—	5,6	—	MHz
Relative attenuation	α_{rel}				
	55,18 (55,10) MHz	—	0,6	—	dB
	58,58 (58,50) MHz	—	0,4	—	dB
Adjacent picture carrier	53,83 (53,75) MHz	—	45,0	—	dB
Adjacent sound carrier	59,33 (59,25) MHz	—	11,0	—	dB
Lower sidelobe					
45,08 ... 51,58	(45,00 ... 51,50) MHz	39,0	47,0	—	dB
51,58 ... 53,83	(51,50 ... 53,75) MHz	32,0	40,0	—	dB
Upper sidelobe					
60,03 ... 62,58	(59,95 ... 62,50) MHz	30,0	38,0	—	dB
62,58 ... 65,08	(62,50 ... 65,00) MHz	37,0	43,0	—	dB
Reflected wave signal suppression					
1,2 µs ... 6,0 µs after main pulse (test pulse 250 ns, carrier frequency 57,08 MHz)		42,0	53,0	—	dB
Feedthrough signal suppression					
1,3 µs ... 1,2 µs before main pulse (test pulse 250 ns, carrier frequency 57,08 MHz)		—	50,0	—	dB
Group delay ripple (p-p)	Δτ				
55,68 ... 58,08	(55,60 ... 58,00) MHz	—	50	—	ns
Impedance at 57,08 MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$		—	0,4‖24,0	—	kΩ || pF
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$		—	0,6‖ 6,0	—	kΩ || pF
Temperature coefficient of frequency	TC_f	—	–72	—	ppm/K

Frequency response of channel 1

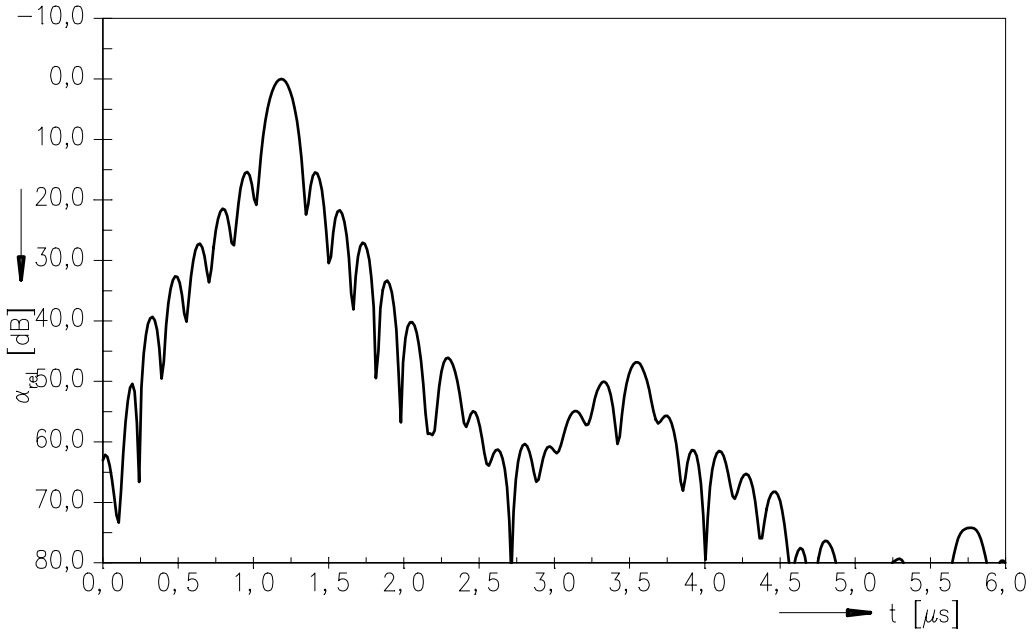




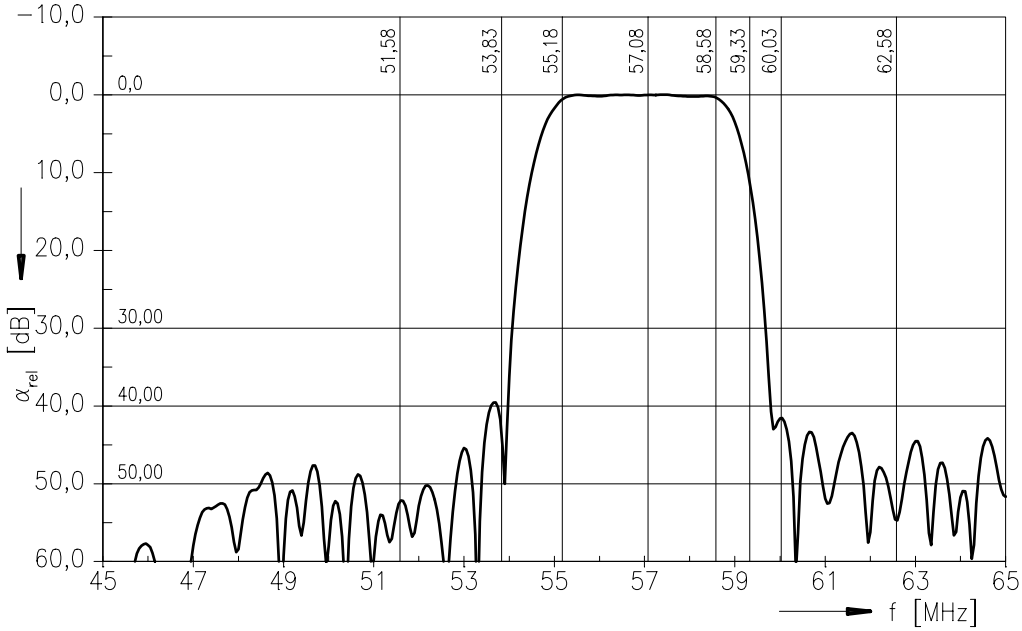
Frequency response of channel 1

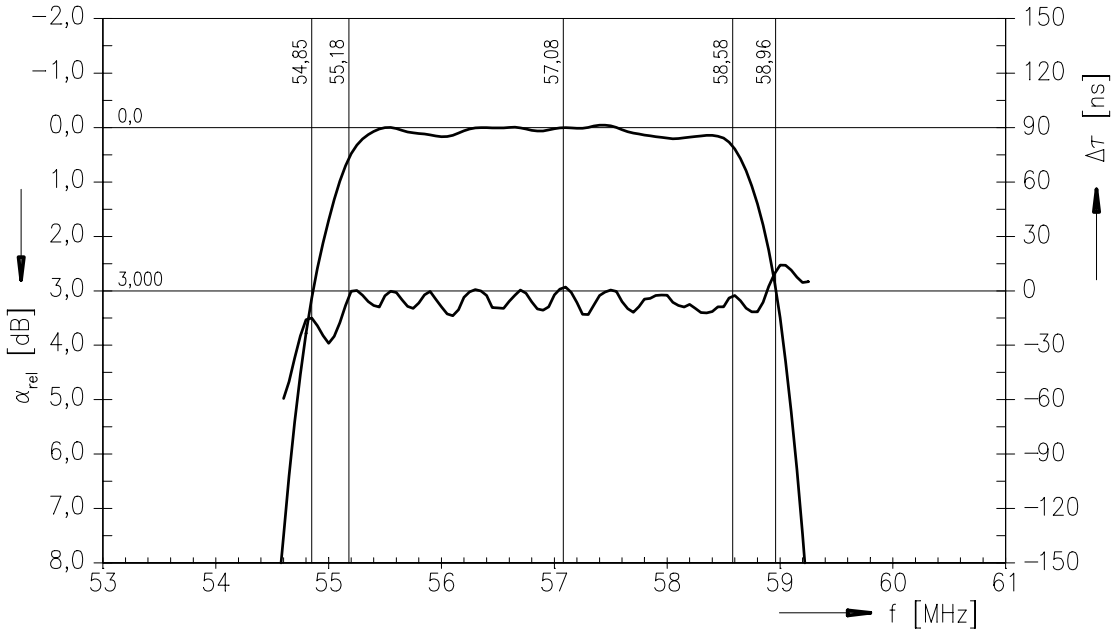


Time domain response of channel 1

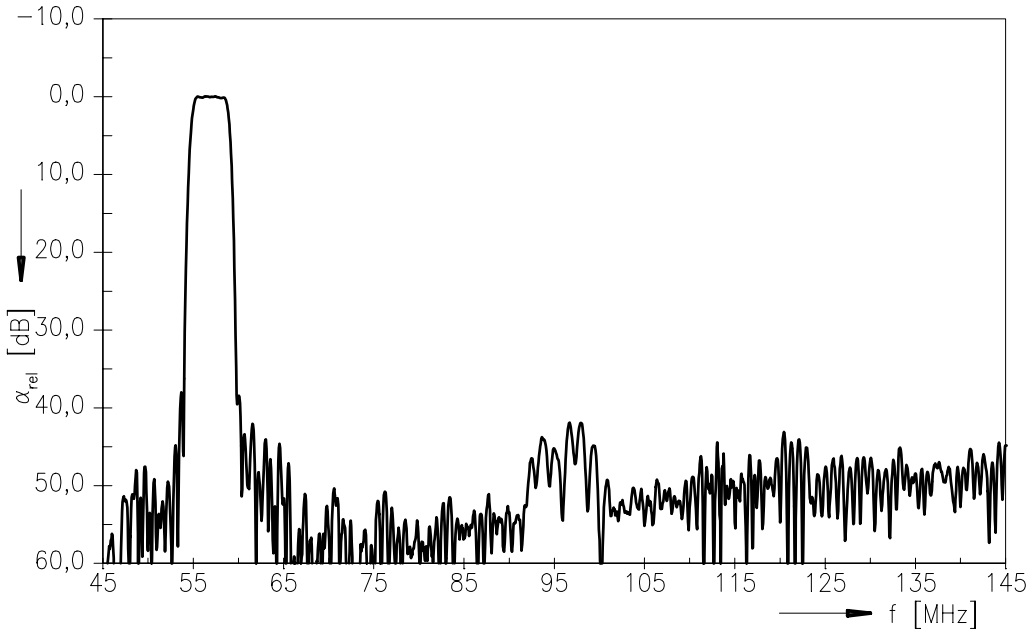


Frequency response of channel 2

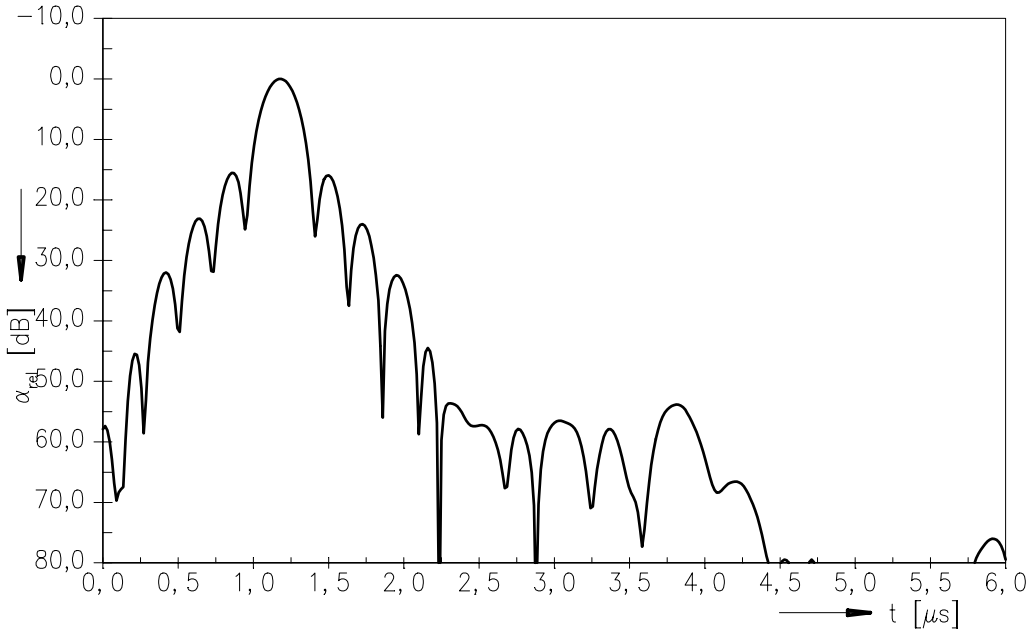




Frequency response of channel 2



Time domain response of channel 2



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