
**SAW Bandpass Filter
(for Digital Audio Broadcasting)**

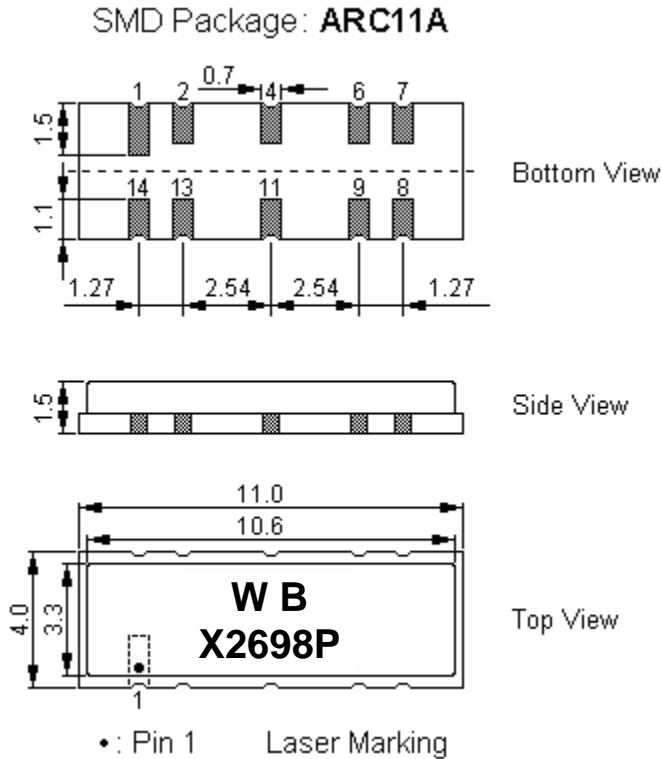
P/N: WBX2698P

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Features

- IF filter for Digital Audio Broadcasting (DAB)
- Constant group delay
- Surface Mounted Technology (SMT)

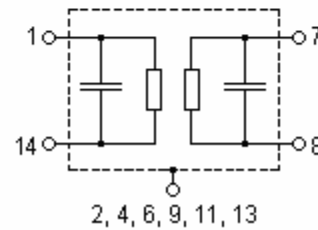
(1) Package dimension



(2) Pin configuration

1	Input
14	Input - ground
4, 9, 11, 13	Case - ground
2, 6	Ground
7	Output
8	Output

Unit: mm



(3) Performance

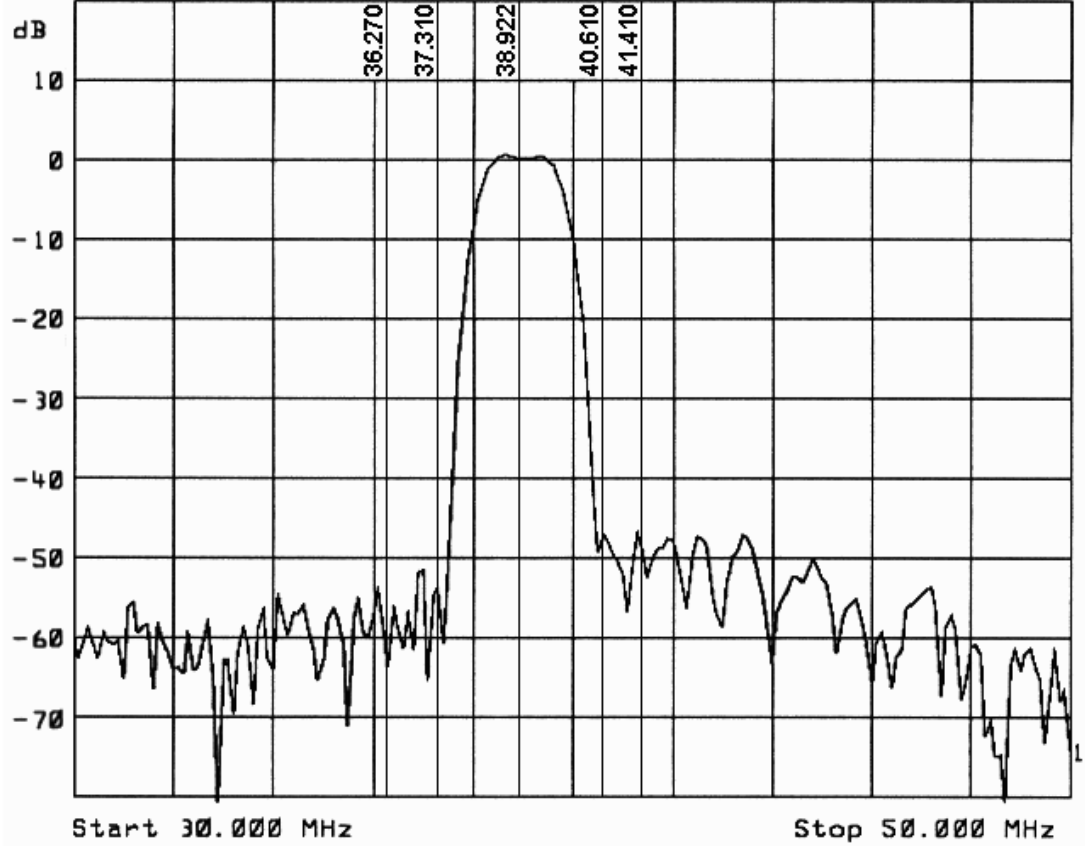
(3-1) Maximum ratings

Rating		Value	Unit
Operating temperature range	T_A	-40 to +85	°C
Storage temperature range	T_{stg}	-40 to +85	°C
DC voltage (between any terminals)	V_{DC}	0	V
AC voltage (between any terminals)	V_{PP}	10	V

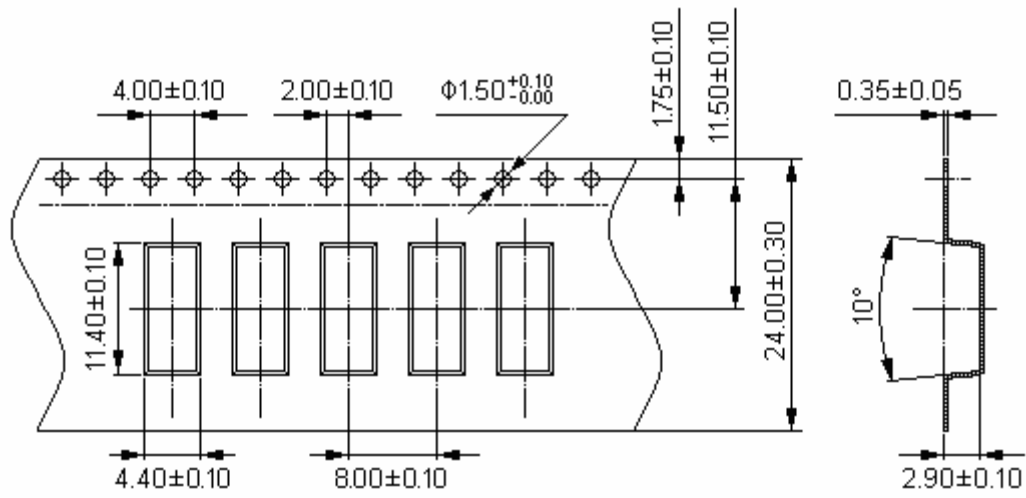
- (3-2) Electrical characteristics
Reference temperature: $T_A = 25(45)^\circ\text{C}$
Terminating source impedance: $Z_S = 50\Omega$
Terminating load impedance: $Z_L = 2\text{K}\Omega \parallel 3\text{pF}$

Item		Min.	Typ.	Max.	Unit
Center frequency (Center between 10 dB points)	f_C	38.874	38.912	38.950	MHz
Insertion attenuation Reference level for the following data 38.92 (38.91) MHz	IL	17.5	19.0	20.5	dB
Pass bandwidth					
$\alpha_{rel} \leq 3 \text{ dB}$	$BW_{3\text{dB}}$	-	1.5	-	MHz
$\alpha_{rel} \leq 30 \text{ dB}$	$BW_{30\text{dB}}$	-	2.7	-	MHz
Relative attenuation					
36.27 ... 37.31 (36.26 ... 37.30) MHz	α_{rel}	35.0	45.0	-	dB
40.61 ... 41.41 (40.60 ... 41.40) MHz		32.0	42.0	-	dB
Lower sidelobe (include 2 nd adjacent channel) 30.01 ... 36.27 (30.00 ... 36.26) MHz	-	36.0	45.0	-	dB
Upper sidelobe (include 2 nd adjacent channel) 41.41 ... 50.01 (41.40 ... 50.00) MHz	-	33.0	42.0	-	dB
Adjacent channel suppression (power relative to power in main channel)					
1 st adjacent channel	-	-	18.0	-	dB
2 nd adjacent channel	-	-	44.0	-	dB
Reflected wave signal suppression 1.6 μs ... 6.0 μs after main pulse (test pulse 250 ns, carrier frequency 38.92MHz)	-	42.0	50.0	-	dB
Group delay ripple (p-p) 38.12 ... 39.72 (38.11 ... 39.71) MHz	$\Delta\tau$	-	60	-	ns
Impedance at 38.92MHz					
Input: $Z_{IN} = R_{IN} \parallel C_{IN}$	-	-	1.2 20.0	-	$\text{K}\Omega \parallel \text{pF}$
Output: $Z_{OUT} = R_{OUT} \parallel C_{OUT}$	-	-	4.0 6.8	-	$\text{K}\Omega \parallel \text{pF}$
Temperature coefficient of frequency	TC_f	-	-18	-	ppm/K

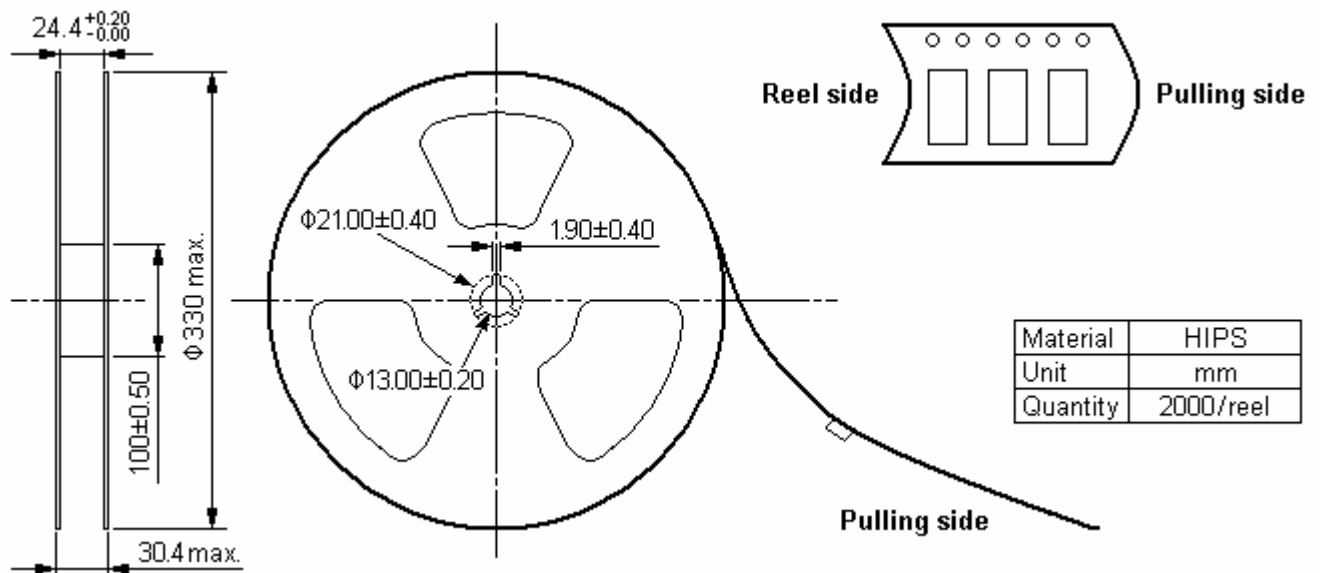
(4) Frequency response



(5) Packing dimension (tape & reel)



Dimensions in mm



(6) Reflow soldering temperature profile

