

SAW Filter 36.17MHz
Part No: MP02303

Model: TB0500A
Rev No: 1

A. MAXIMUM RATING:

DC voltage V_{DC}	12	V	Between any terminals
AC voltage V_{PP}	10	V	Between any terminals
Operating Temperature Range T_A	-25 ~ 65	°C	
Storage Temperature Range T_{stg}	-40 ~ 85	°C	

B. CHARACTERISTICS:

1. Electronic Characteristics:

Reference temperature: $T_a = 25^\circ\text{C}$

Terminating source impedance $Z_S = 50\Omega$

Terminating load impedance $Z_L = 2k\Omega // 3pF$

2. Amplitude Characteristics:

Attenuation (ref: 36.17MHz) (Switching pin 2 connected to ground)

	Min.	Typ.	Max.	
Insertion attenuation reference level for the following data 36.17MHz	19.0	21.0	23.0	dB
3.0dB Pass Bandwidth	7.4	7.9	8.4	MHz
15dB Pass Bandwidth	8.4	8.9	9.4	
30dB Pass Bandwidth	8.8	9.4	10.0	MHz
Lower side lobe 25 to 31.15MHz	35.0	40.0	-	dB
Upper side lobe				
41.15 to 42.00 MHz	31.0	36.0	-	dB
42.00 to 45.00 MHz	36.0	44.0	-	dB
Impedance at 36.17MHz				
Input Impedance	-	1.7 // 17.3	-	k Ω // pF
Output Impedance		2.4 // 4.3		k Ω // pF
Temperature Coefficient of frequency	-	-72.0	-	ppm/K

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Attenuation (ref: 36.17MHz) (Switching pin2 connected to pin 1)

	Min.	Typ.	Max.	
Insertion attenuation reference level for the following data 36.17MHz	19.0	21.0	23.0	dB
3.0dB Pass Bandwidth	6.5	7.0	7.5	MHz
15 dB Pass Bandwidth	7.5	8.0	8.5	
30dB Pass Bandwidth	7.9	8.5	9.1	MHz
Lower side lobe 25.00 to 31.55MHz	35.0	40.0	-	dB
Upper side lobe 40.75 to 45.00MHz	31.0	36.0	-	dB
Impedance at 36.17MHz				
Input Impedance	-	1.5 // 20.9	-	KΩ // pF
Output Impedance		2.4 // 4.3		KΩ // pF
Temperature Coefficient of frequency	-	-72.0	-	ppm/K

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C. FREQUENCY CHARACTERISTICS:

S21 Response: (span 20MHz)

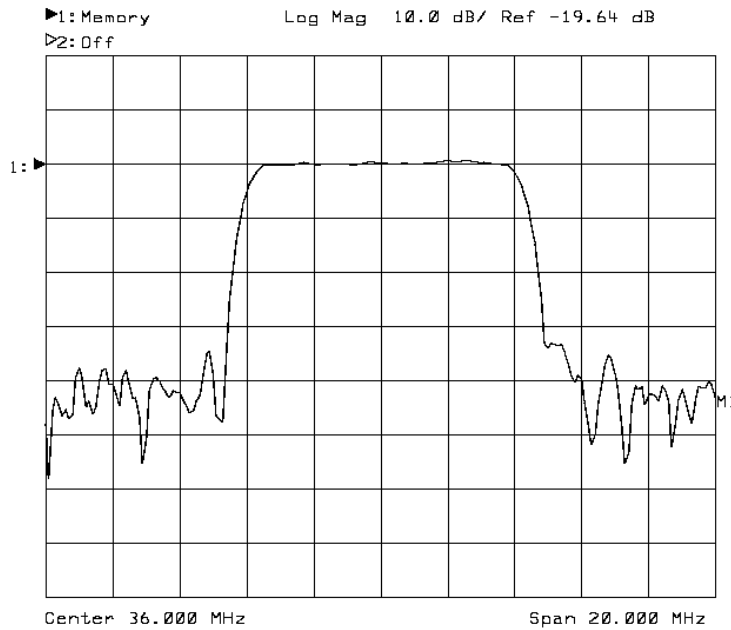


Fig.1 Horizontal: 2MHz / Div Vertical: 10B / Div

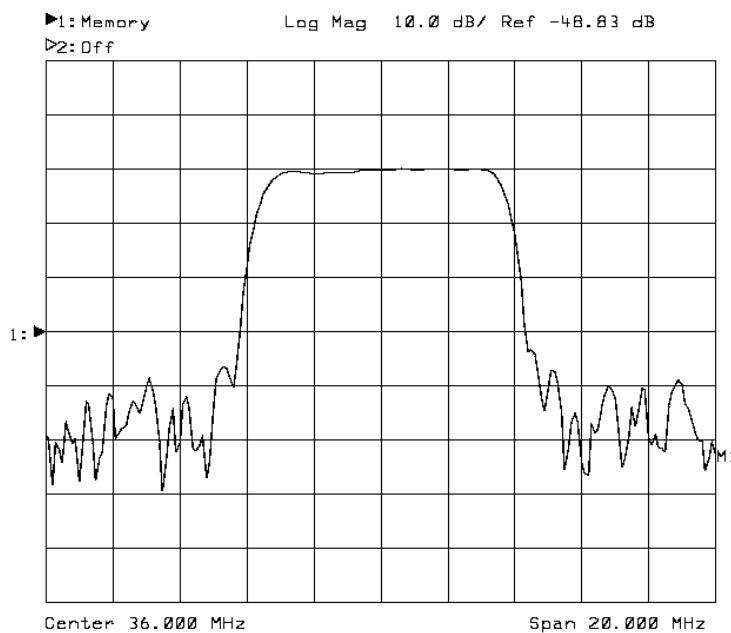
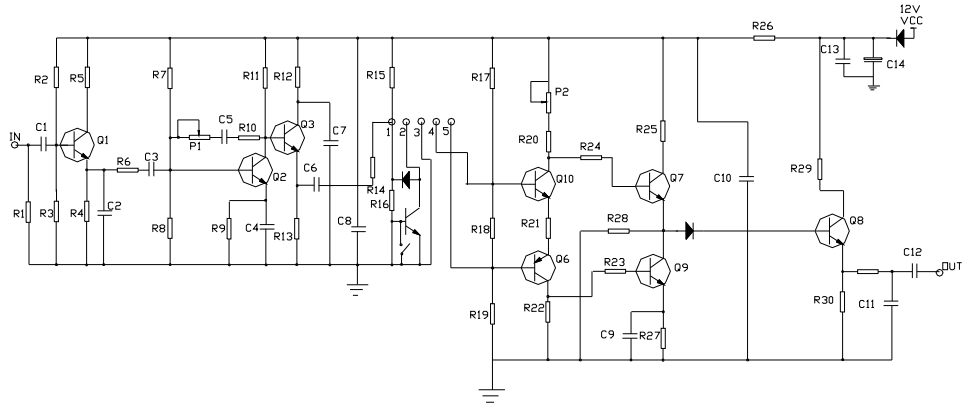


Fig.2 Horizontal: 2MHz / Div Vertical: 10Db / Div

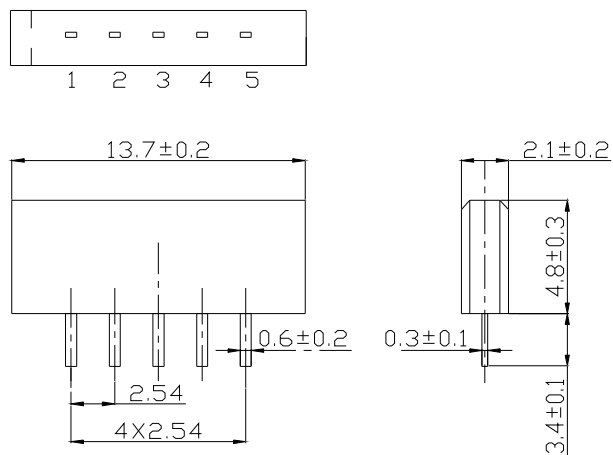
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D. TEST CIRCUIT:



E. OUTLINE DRAWING:



1. Input
2. Switching - Input
3. Chip carrier - Ground
4. Output
5. Output