



TMX U380

SAW Passband Filter - US DVB - C
Preliminary Specification (Rev-1)

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 January 18th, 2005

Operating Temperature range : +25°C (+45°C)

Electrical Parameters	Unit	Minimum	Typical	Maximum
Source Impedance (single ended)	Ω	-	50	-
Load Impedance (balanced drive)	Ω / pF	-	2000 / 3	-
Center Frequency f_0 (center between 3dB points)	MHz	-	44	-
Relative Attenuation α_{rel}				
41.53 (41.47) MHz	dB	-	0.8	-
46.59 (46.53) MHz	dB	-	0.5	-
41.06 (41.00) MHz	dB	2.0	3.2	4.4
47.06 (47.00) MHz	dB	1.2	2.4	3.6
47.31 (47.25) MHz	dB	-	8.3	-
39.81 (39.75) MHz	dB	30.0	40.0	-
Lower sidelobe				
35.06 ... 39.46 (35.00 ... 39.40) MHz	dB	36.0	43.0	-
39.46 ... 40.06 (39.40 ... 40.00) MHz	dB	32.0	40.0	-
Upper sidelobe				
48.06 ... 50.06 (48.00 ... 50.00) MHz	dB	30.0	35.0	-
50.06 ... 55.06 (50.00 ... 55.00) MHz	dB	31.0	42.0	-
Insertion attenuation I_L Reference level for the following data 44.06 (44.00)MHz	dB	13.2	14.7	16.2
Amplitude Ripple $\Delta\alpha$ 41.53 ... 46.59 MHz	dB	-	0.5	-
Pass bandwidth				
$\alpha_{\text{rel}} \leq 3\text{dB}$ $BW_{3\text{dB}}$	MHz	-	6.0	-
$\alpha_{\text{rel}} \leq 30\text{dB}$ $BW_{30\text{dB}}$	MHz	-	7.7	-
Group delay ripple (p-p) $\Delta\tau$ 41.53 ... 46.59 MHz	ns	-	30	-
Temperature coefficient of frequency TC_f	ppm/K	-	-72	-
Package type	SIP5D			

Maximum Ratings

Rating		Unit	Value
Operable Temperature Range	T_A	-25 to +65	°C
Storage Temperature Range	T_{stg}	-40 to +85	°C
DC Voltage (between any terminals)	V_{DC}	5	V
AC Voltage (between any terminals)	V_{PP}	10	V

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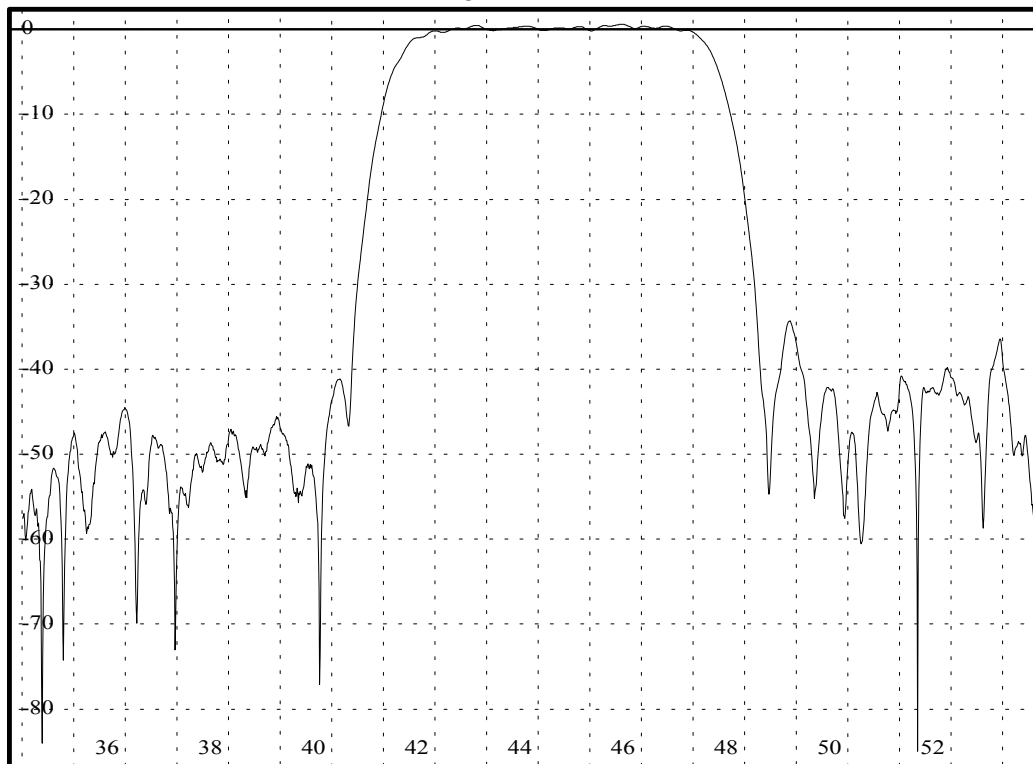
TYPICAL S21 RESPONSE

References

CENTER FREQUENCY = 44 MHz
LOSS REFERENCE = 1.19 μ s
DELAY REFERENCE = 75.08 deg

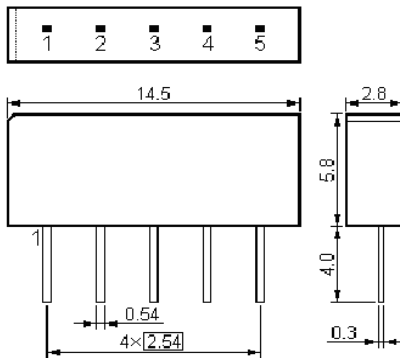
Scales

SCALE_FREQUENCY = 1 MHz/div
SCALE_AMPLITUDE = 10 dB/div



PACKAGE DRAWING

Package Dimension



Pin Configuration

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

Plastic Package **SIP5D**
Unit: mm

