

TMX W401

SAW Bandpass Filter – Digital Audio Application
Specification (Rev-1)

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SAW Bandpass Filter – Europe DAB

Preliminary Specification (Rev 1)

February 7th, 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 10dB points) | MHz | 38.874 | 38.912 | 38.950 |
| Relative Attenuation α_{rel} | | | | |
| From 36.27MHz to 37.31MHz (From 36.26MHz to 37.30MHz) | dB | 40.0 | 52.0 | - |
| From 40.61MHz to 41.41MHz (From 40.60MHz to 41.40MHz) | dB | 38.0 | 46.0 | - |
| Lower sidelobe (Incl. 2nd adjacent channel) | | | | |
| From 30.01MHz to 36.27MHz (From 30.00MHz to 36.26MHz) | dB | 43.0 | 53.0 | - |
| Upper sidelobe (Incl. 2nd adjacent channel) | | | | |
| From 41.41MHz to 50.01MHz (From 41.40MHz to 50.00MHz) | dB | 42.0 | 47.0 | - |
| Insertion attenuation IL Reference level for the following data 38.922 (38.912)MHz | dB | 17.2 | 18.7 | 20.2 |
| Pass bandwidth | | | | |
| $\alpha_{\text{rel}} \leq 3\text{dB } \text{BW}_{3\text{dB}}$ | MHz | - | 1.5 | - |
| $\alpha_{\text{rel}} \leq 30\text{dB } \text{BW}_{30\text{dB}}$ | MHz | - | 2.7 | - |
| Group delay ripple (p-p) $\Delta\tau$ Aperture 50 kHz | | | | |
| From 38.12MHz to 39.72MHz (From 38.11MHz to 39.71MHz) | ns | - | 35 | - |
| Reflected Wave Signal Suppression 1.6 μs6.0 μs after main pulse (test pulse 250ns, carrier frequency 38.922MHz) | | | | |
| | dB | 42.0 | 52.0 | - |
| Temperature coefficient of frequency TC_f | ppm/K | - | -18 | - |
| Package type | SIP5D | | | |

Maximum Ratings

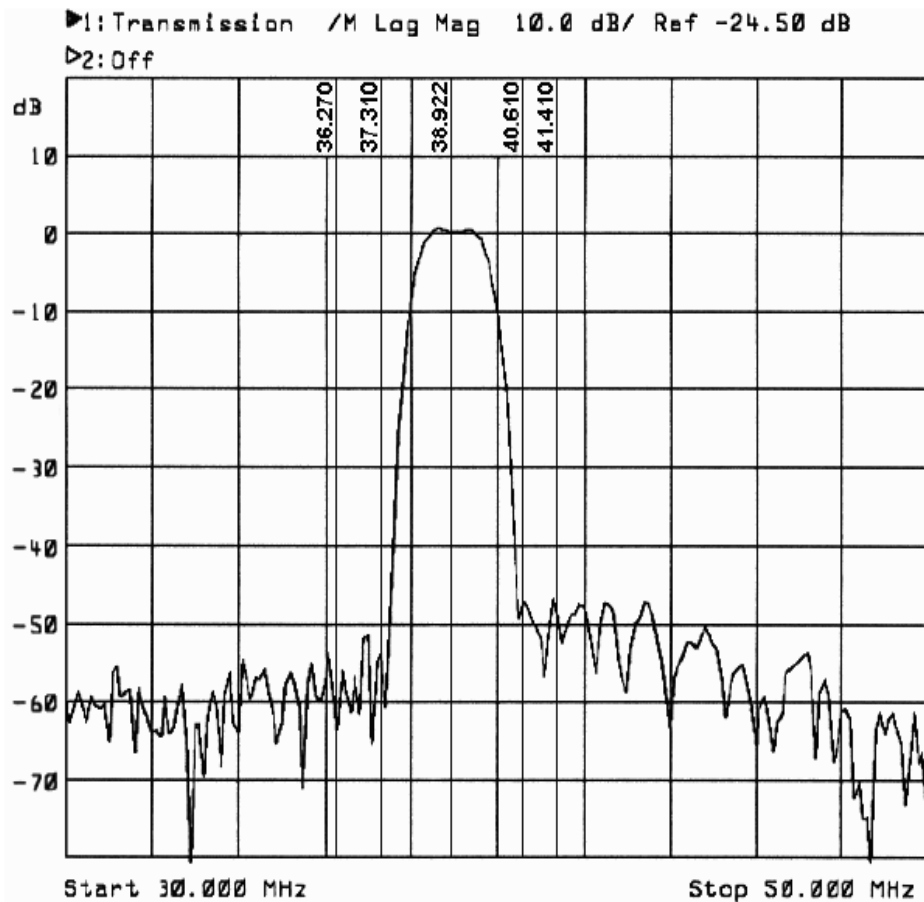
| Rating | | Unit | Value |
|------------------------------------|------------------|------------|-------|
| Operable Temperature Range | T_A | -40 to +65 | °C |
| Storage Temperature Range | T_{stg} | -40 to +85 | °C |
| DC Voltage (between any terminals) | V_{DC} | 0 | V |
| AC Voltage (between any terminals) | V_{PP} | 10 | V |

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TYPICAL S21 RESPONSE

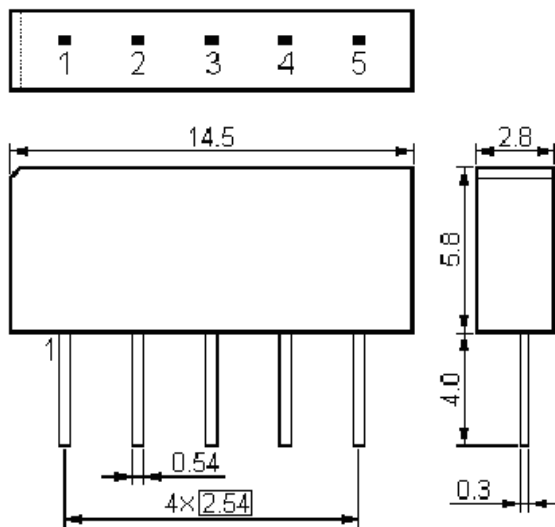


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PACKAGE DRAWING



Pin Configuration

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

Plastic Package **SIP5D**
 Unit: mm

