

**70.0MHz SAW Filter**  
**Part No: MA05435**

**Model: TB0186A**  
**REV NO.: 3**

**A. Maximum Rating:**

1. Input Power Level: +20 dBm
2. Operating Temperature: 0°C to +70°C
3. Storage Temperature: -40°C to +85°C

**B. Electrical Characteristics:**

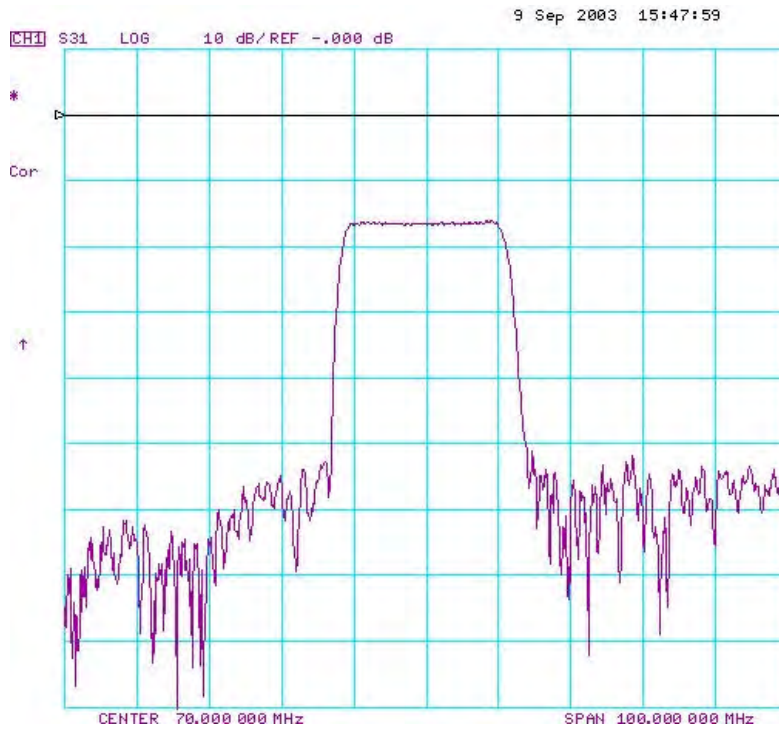
Parameter	Unit	Min.	Typ.	Max.
Center frequency, <b>Fc</b>	MHz	69.8	70	70.2
Insertion Loss, <b>IL</b>	dB	-	16	17.5
1 dB Bandwidth	MHz	20	20.9	-
3 dB Bandwidth	dB	21.5	22.2	-
40 dB Bandwidth	MHz	-	27.3	28.2
Amplitude ripple (61.76MHz~78.24MHz)	dB	-	0.6	1
Phase Linearity (61.2MHz~78.8MHz) (rms)	deg	-	1.5	5
Group Delay ripple (61.2MHz~78.8MHz)	nsec	-	60	100
Absolute Delay	µsec	-	0.72	-
Attenuation (Reference level from 0 dB)				
0 ~ 56MHz	dB	45	52	-
84~140MHz	dB	45	52	-
Substrate Material	-	-	LN-YZ	-
Temperature Coefficient	ppm/ °C	-	-94	-
Ambient Temperature	°C	-	25	-

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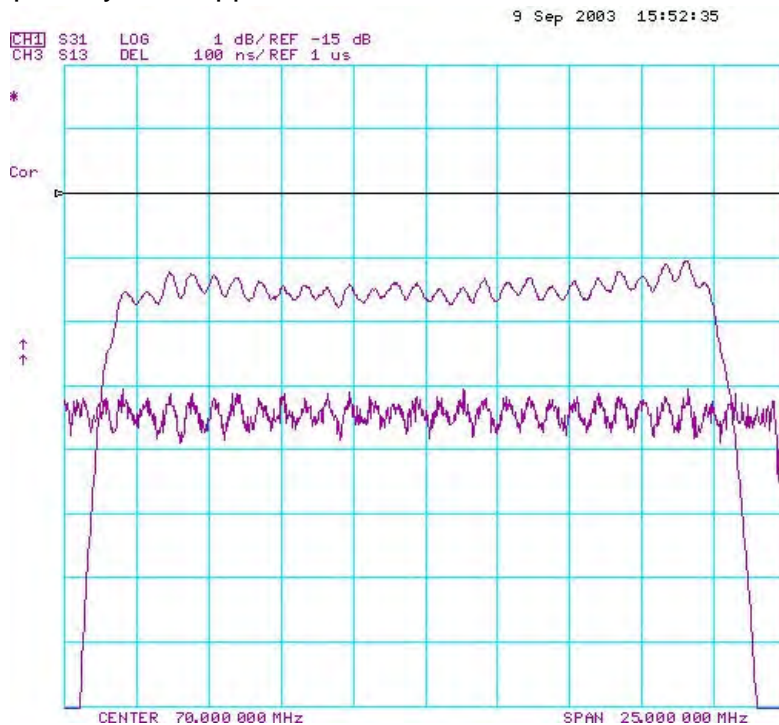
**C. FREQUENCY CHARACTERISTICS:**

(1) S21 Response:



Horizontal: 10 MHz/Div. Vertical: 10 dB/Div

(2) Group Delay and Ripple



Horizontal: 2.5 MHz/Div. CH1 Vertical 1: 1 dB/Div. CH2 Vertical 2: 100 nsec/Div

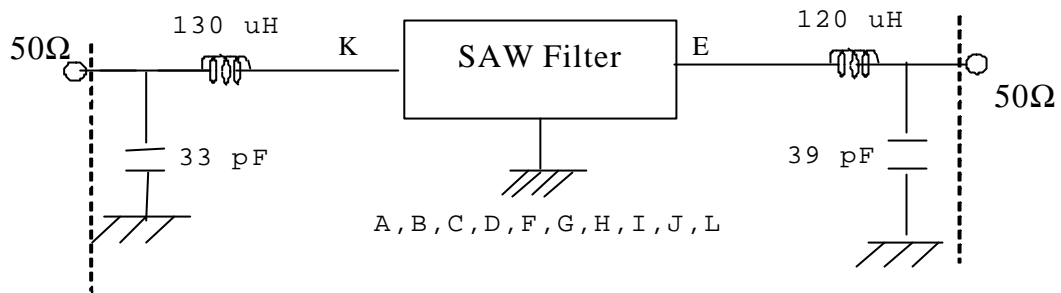
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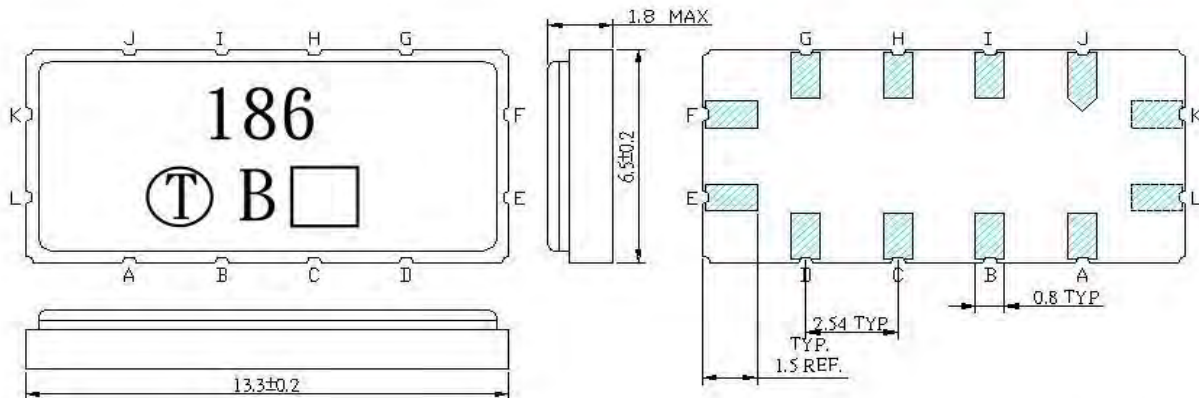
**D. MEASUREMENT CIRCUIT:**

For 50 ohm Unbalanced Input and Output

Network analyzer



**E. OUTLINE DRAWING:**



Unit: mm

Pin K: RF Input  
 Pin E: RF Output  
 Pin L: Input Ground

Pin F: Output Ground  
 Pin A, B, C, D, G, H, I, J: To be Ground  
 □: Date code