



Approved by:

Checked by:

Issued by:

SPECIFICATION

PRODUCT: SAW FILTER

MODEL: HF94503N (M9370N) SIP5D

HOPE MICROELECTRONICS CO., LIMITED

Relative humidity : 25% to 85%
 Air pressure : 86kPa to 106kPa

Operating temperature rang

Operating temperature rang is the rang of ambient temperatures in which the filter can be operated continuously. -10°C ~ +60°C

Storage temperature rang

Storage temperature rang is the rang of ambient temperatures at which the filter can be stored without damage.

Conditions are as specified elsewhere in these specifications. -40°C ~ +70°C

Reference temperature +25°C

2.1 Maximum Rating

DC voltage	VDC	12	V	Between any terminals
AC voltage	Vpp	10	V	Between any terminals

2.2 Electrical Characteristics

Source impedance $Z_s=50\ \Omega$

Load impedance $Z_L=2k\ \Omega // 3pF$ $T_A=25^\circ C$

Item	Freq	min	typ	max	
Insertion attenuation Reference level	41.31MHz	6.7	8.7	10.7	dB
	45.81MHz	42.0	57.0	-	dB
	42.23MHz	24.0	33.0	-	dB
	39.81MHz	42.0	56.0	-	dB
	47.31MHz	42.0	54.0	-	dB
Sidelobe	35.06~39.81MHz	38.0	51.0		dB
	45.81~55.06MHz	37.0	45.0		dB
Temperature coefficient			-72		ppm/k

2.3 Environmental Performance Characteristics

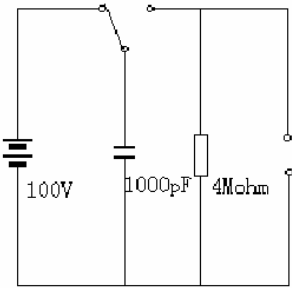
Item Test condition	Allowable change of absolute Level at center frequency(dB)
High temperature test 70°C 1000H	< 1.0
Low temperature test -40°C 1000H	< 1.0
Humidity test 40°C 90-95% 1000H	< 1.0
Thermal shock -20°C==25°C==80°C 20 cycle 30M 10M 30M	< 1.0
Solder temperature test Sold temp.260°C for 10 sec.	< 1.0

Soldering Immerse the pins melt solder at 260°C+5/-0°C for 5 sec.	More then 95% of total area of the pins should be covered with solder
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2.4 Mechanical Test

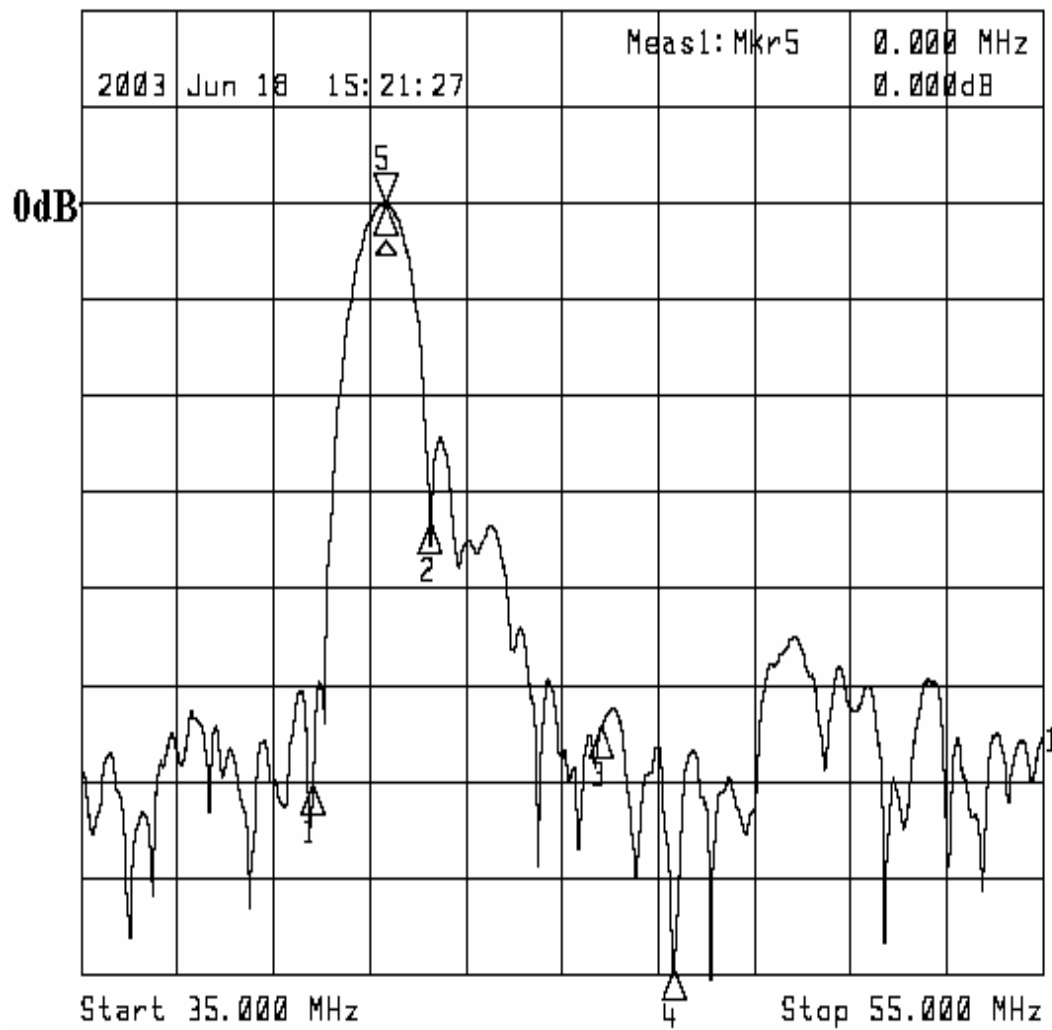
Item Test condition	Allowable change of absolute Level at center frequency(dB)
Vibration test 600-3300rpm amplitude 1.5mm 3 directions 2 H each	<1.0
Drop test On maple plate from 1 m high 3 times	<1.0
Lead pull test Pull with 1 kg force for 30 seconds	<1.0
Lead bend test 90° bending with 500g weigh 2 times	<1.0

2.5 Voltage Discharge Test

Item Test condition	Allowable change of absolute Level at center frequency(dB)
Surge test Between any two electrode 	<1.0

2.6 Frequency response:

►1: Transmission /M Log Mag 10.0 dB/



1: Mkr Δ (MHz)	dB	2: Mkr (MHz)	dB
1:	-1.5000	-60.193	
2:	0.9200	-32.910	
3:	4.5000	-54.246	
4:	6.0000	-79.461	
5:	0.0000	0.000	