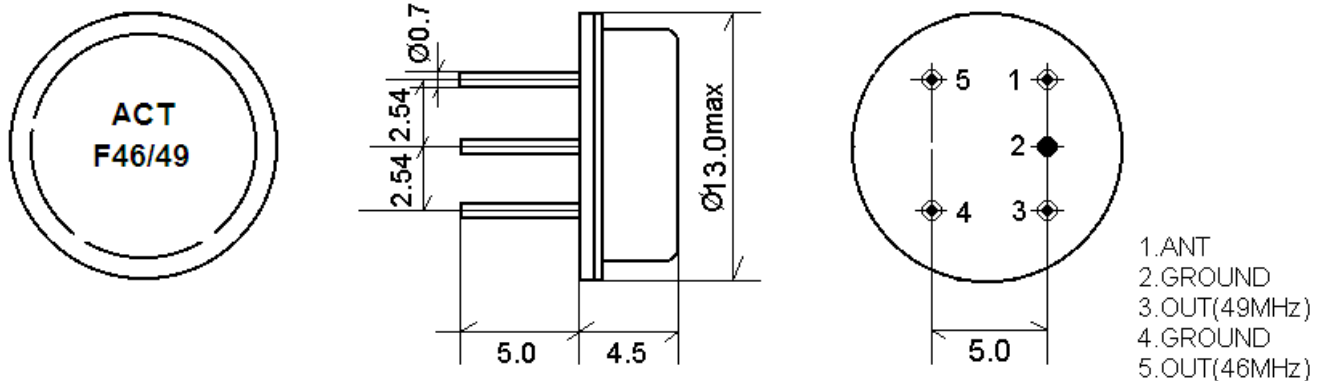


1. Scope

This specification covers the characteristics of the following SAW Duplexer used for the cordless phones:

2. Package

Type: ACTF46-49/46.79-49.83/W2



3. Characteristics

3.1 Maximum Rating

Rating		Value	Unit
Operable Temperature Range	T_A	-10 to +65	°C
Storage Temperature Range	T_{stg}	-40 to +85	°C
DC Voltage (between any terminals)	V_{DC}	0	V
Source power	P_S	15	dBm

In keeping with our ongoing policy of product evolution and improvement, the above specification is subject to change without notice.

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3.2 Electrical Characteristics

Characteristics of channel 46:

Reference temperature: $T_A=25^{\circ}\text{C}$
 Source impedance: $Z_S=50\Omega$
 Load impedance: $Z_L=50\Omega$

Item	Freq	min.	typ.	max.	Units
Nominal frequency	f_N	-	46.79	-	MHz
Insertion attenuation 46.61~46.97MHz			3.5	5.0	dB
Attenuation	20.00~43.50MHz	32.0	36.0		dB
	49.67~49.99MHz	37.0	47.0		
	49.99~80.00MHz	32.0	36.0		
Temperature coefficient			-72		ppm/k

Characteristics of channel 49:

Reference temperature: $T_A=25^{\circ}\text{C}$
 Source impedance: $Z_S=50\Omega$
 Load impedance: $Z_L=50\Omega$

Item	Freq	min.	typ.	max.	Units
Nominal frequency	f_N	-	49.83	-	MHz
Insertion attenuation 49.67~49.99MHz			3.5	5.0	dB
Attenuation	20.00~46.61MHz	32.0	36.0		dB
	46.61~46.97MHz	37.0	47.0		
	53.50~80.00MHz	32.0	36.0		
Temperature coefficient			-72		ppm/k

Isolation between 46 and 49:

Reference temperature: $T_A=25^{\circ}\text{C}$
 Source impedance: $Z_S=50\Omega$
 Load impedance: $Z_L=50\Omega$

Item	Freq	min.	typ.	max.	Units
Attenuation	46.61~46.97MHz	40.0	48.0		dB
	49.67~49.99MHz	40.0	45.0		

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3.3 Environmental Performance Characteristics

Item Test Condition	Allowable change of absolute Level at centre frequency (dB)
High temperature test 70°C 16H	< 1.0
Low temperature test -25°C 2H	< 1.0
Humidity test 40°C 90-95% 100H	< 1.0
Thermal cycle -25°C==25°C==70°C 3 cycles 30min. 5min. 30min.	< 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

3.4 Mechanical Test

Item Test Condition	Allowable change of absolute Level at centre frequency (dB)
Vibration test Frequency 10~55Hz 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

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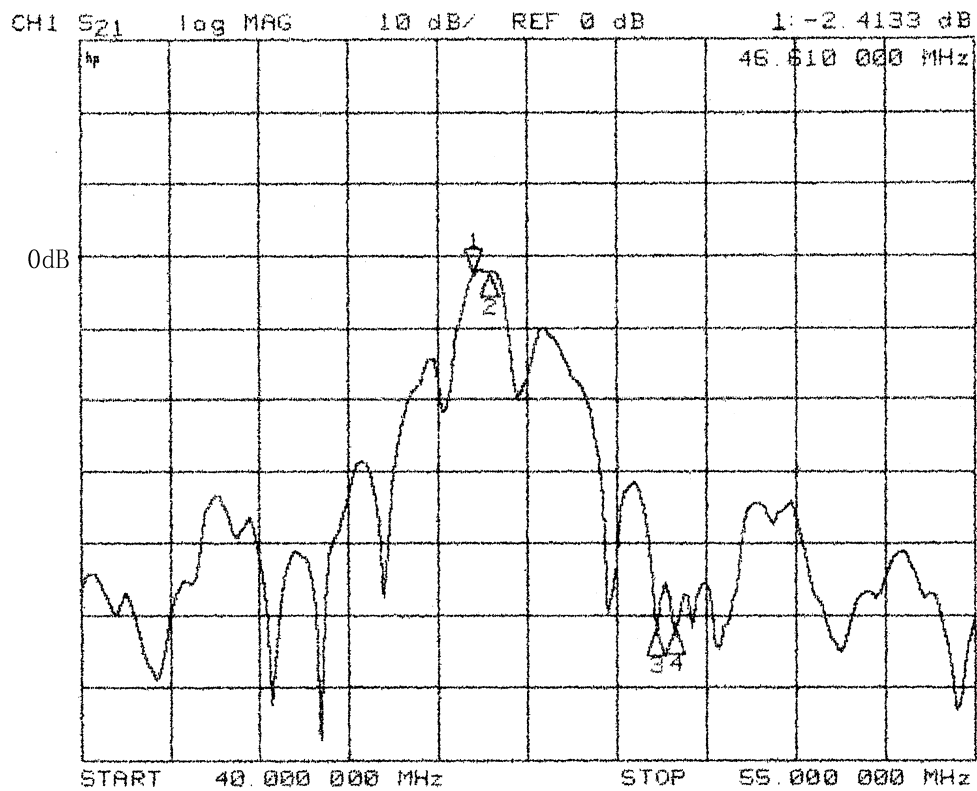
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4. Frequency Response

Transfer function channel 46:



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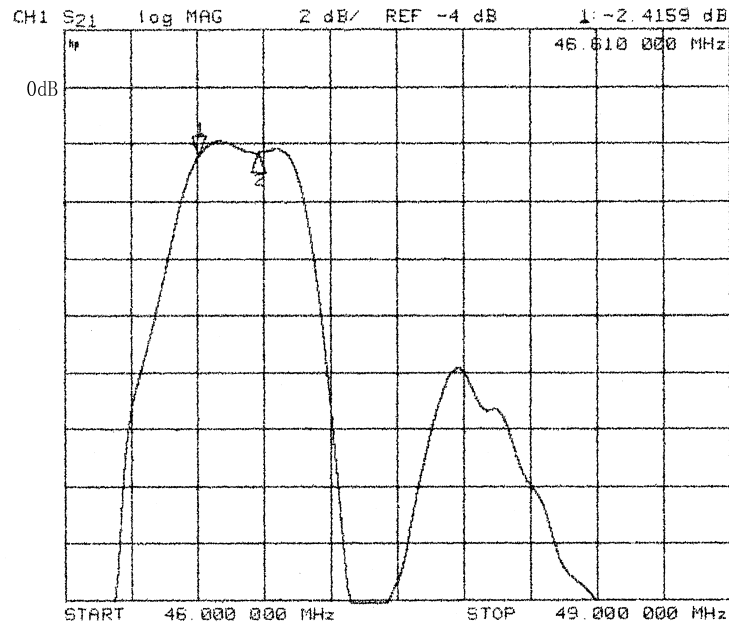
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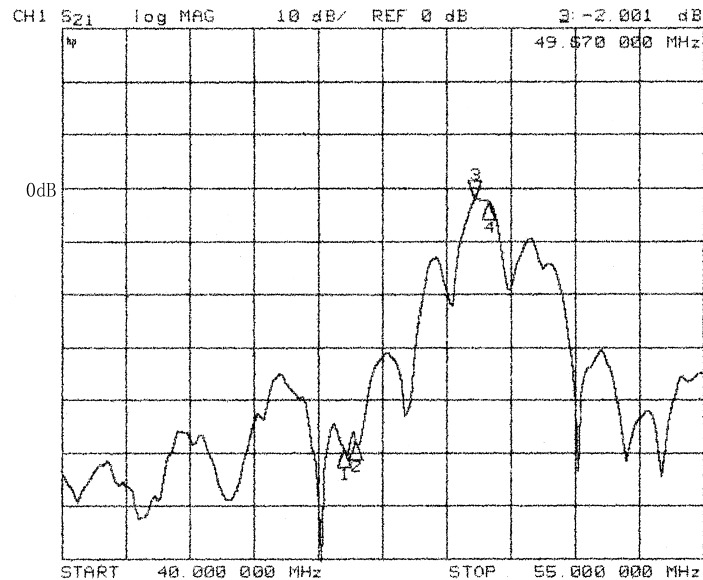
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Transfer function channel 46 (pass band):



Transfer function channel 49:



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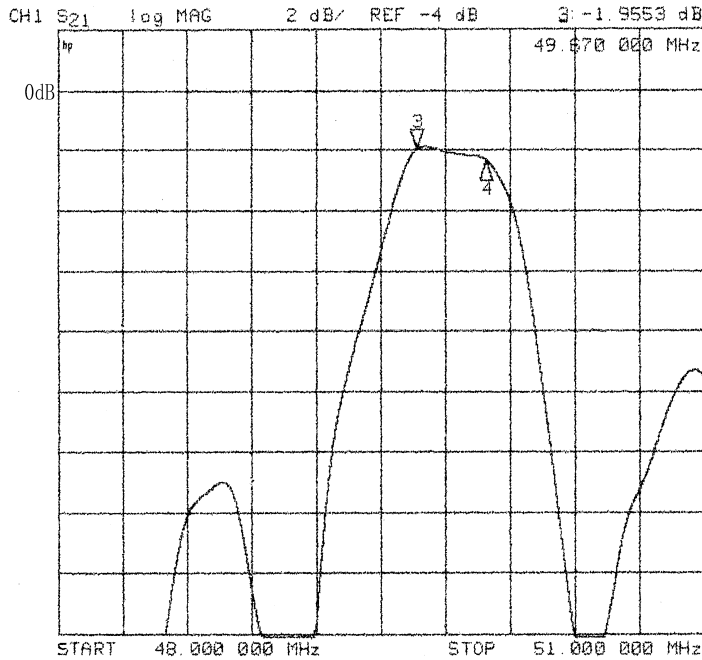
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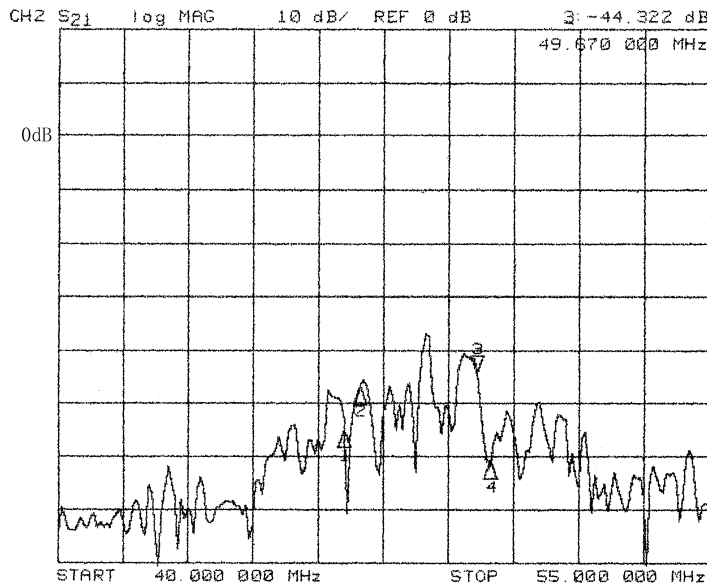
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Transfer function channel 49 (pass band):



Isolation between 46 and 49:



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İ CAUTION: Electrostatic Sensitive Device. Observe precautions for handling!

1. Unless noted otherwise, all measurements are made with the filter installed in the specified test fixture that is connected to a 50Ω test system with VSWR≤1.2:1. The test fixture L and C are adjusted for minimum insertion loss at the filter centre frequency, f_c . Note that insertion loss, bandwidth, and passband shape are dependent on the impedance matching component values and quality.
2. Unless noted otherwise, specifications apply over the entire specified operating temperature range.
3. The specifications of this device are based on the test circuit shown above and subject to change or obsolescence without notice.
4. All equipment designs utilizing this product must be approved by the appropriate government agency prior to manufacture or sale.
5. Our liability is only assumed for the Surface Acoustic Wave (SAW) component(s) per se, not for applications, processes and circuits implemented within components or assemblies.