

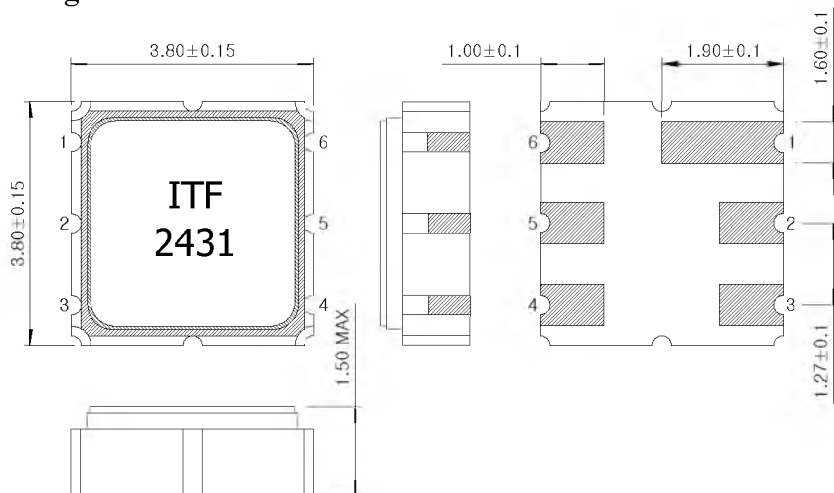
SAW Bandpass Filter 243.95MHz



Features

- Narrow bandpass filter
- High attenuation
- Usable bandwidth 220kHz
- Matched 50Ω single-ended operation
- Ceramic Surface Mounted Device (SMD) Package
- RoHS/RoHS2 (2015/863/EU) Compliant

Package Dimensions



Dimensions shown are nominal in millimeters

Body : Al₂O₃ Ceramic

Lid : Kovar, Ni Plated

Terminations : Au plating 0.3 ~ 1.0 um, Over a 1.27 ~ 8.89 um
Ni Plating

Pin Configuration

2	Input
5	Output
1, 3, 4, 6	Case ground

Maximum Ratings

Parameter	Unit	Minimum	Typical	Maximum
Operating Temperature Range	°C	-10	25	60
Storage Temperature Range	°C	-40	-	85
Power Handling Capability	dBm	-	-	-

Electrostatics Sensitive Device (ESD)

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Specifications

$F_c = 243.950\text{MHz}$

Terminating source impedance : 50Ω and matching network

Terminating load impedance : 50Ω and matching network

		Minimum	Typical	Maximum
Center Frequency (F_c)	MHz	-	243.950	-
Insertion Loss ($F_c \pm 110\text{ kHz}$)	dB	-	3.5	4.0
Amplitude Ripple ($F_c \pm 110\text{ kHz}$)	dB	-	0.8	1.5
Absolute Group Delay at F_c	usec	-	-	1.2
Group Delay Variation ($F_c \pm 110\text{ kHz}$)	nsec	-	20	-
VSWR ($F_c \pm 110\text{ kHz}$)		-	1.5	-
Relative Attenuation				
$F_c \pm 600\text{ kHz}$	dB	20	-	-
$F_c \pm 1.2\text{ MHz}$		40	-	-
Temperature Coefficient of Frequency	ppm/ $^{\circ}\text{C}^2$	-	-0.23	-

Notes :

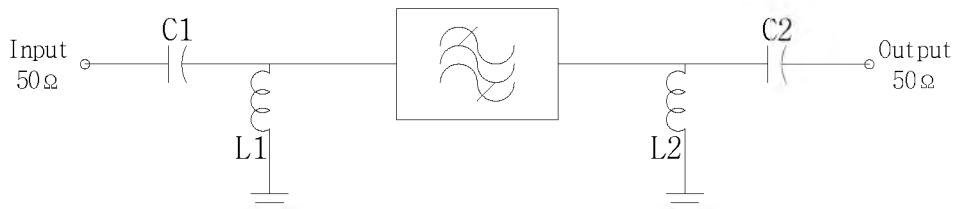
- 1) All specifications are based on the matching schematic shown below, measured by Agilent Network analyzer and full 2 port calibration.
- 2) Electrical margin has been built into the design to account for the variations due to temperature drift and manufacturing tolerances
- 3) All attenuation measurements are measured relative to insertion loss

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Matching Schematic

(Actual matching values may vary due to PCB layout and parasitics)



C1 = 4.3 pF, C2 = 4.7 pF, L1, L2 = 68 nH

Marking Configuration

ITF¹⁾

2431²⁾

1) Manufacturer name

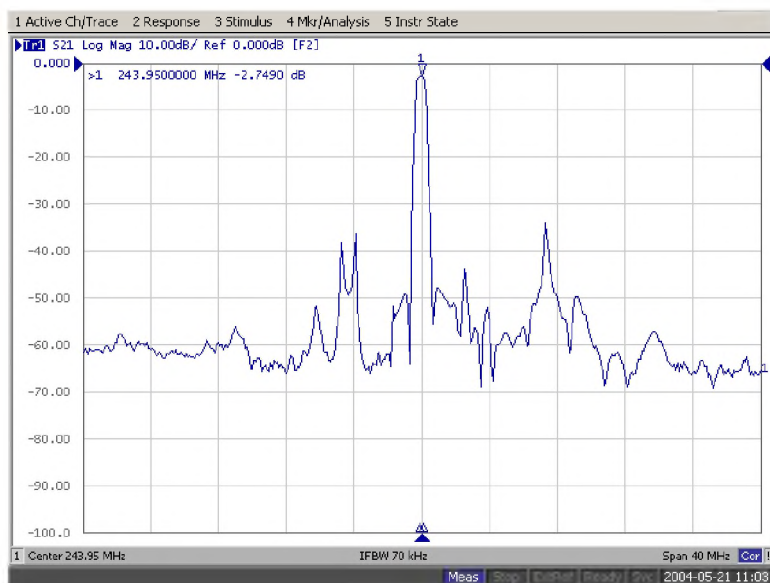
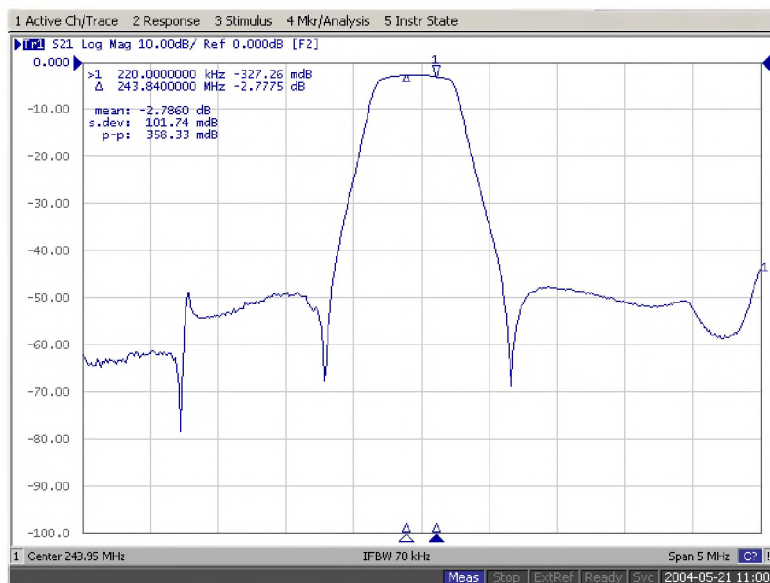
2) Marking Number

* Ink or Laser Marking available

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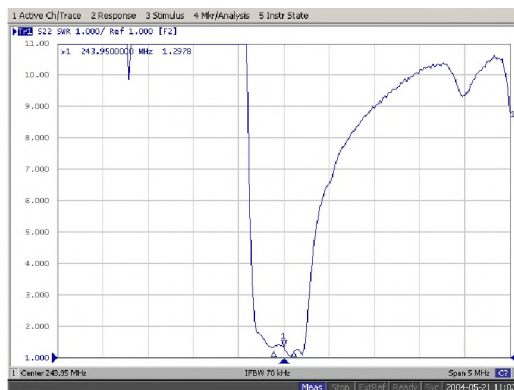
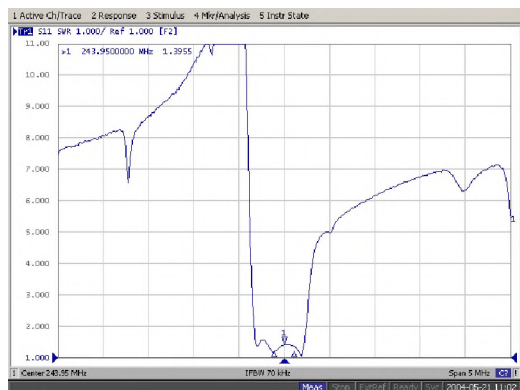
Frequency Response



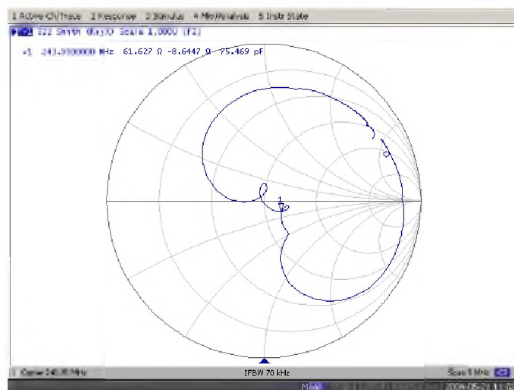
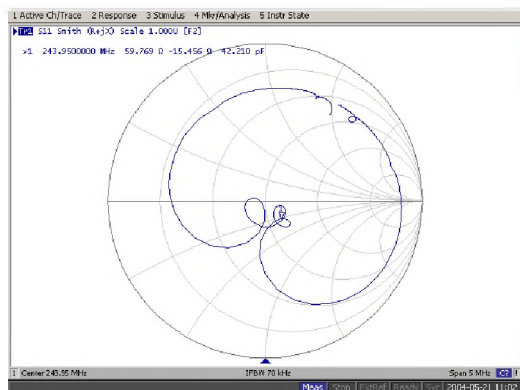
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Input / Output VSWR Charts



Input / Output Smith Charts

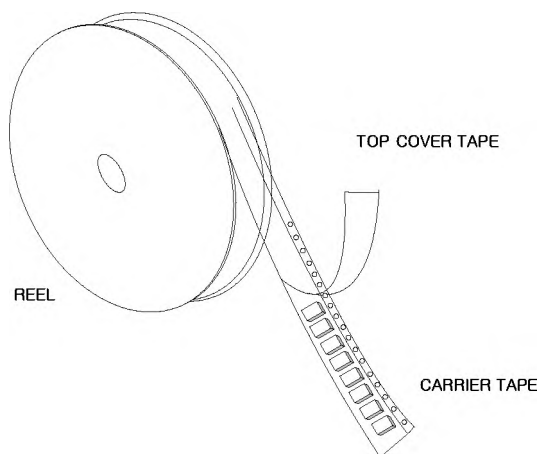


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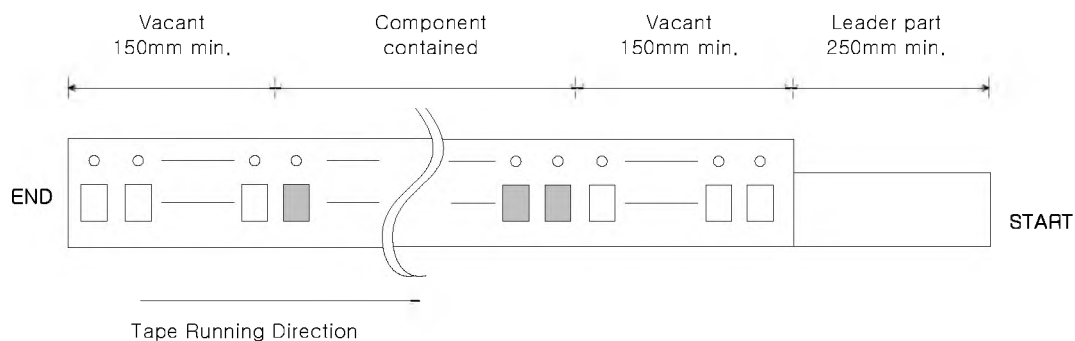
Packing Specification

1. Reeling Quantity : 1000 pcs / reel
2. Taping Structure : The tape shall be wound around the reel in the direction shown below.



Tape Specification

1. Leader part and vacant position specification



2. Tensile strength of carrier tape

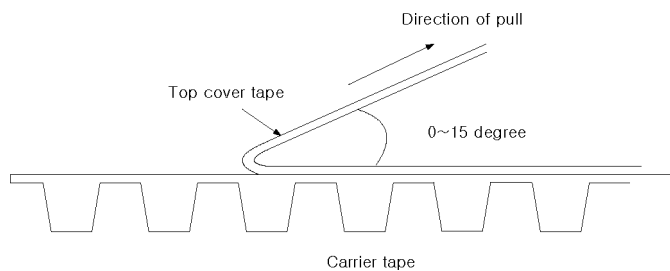
4.4N/mm width

3. Top cover tape adhesion

1) pull off angle : 0~15°

2) speed : 300mm/min

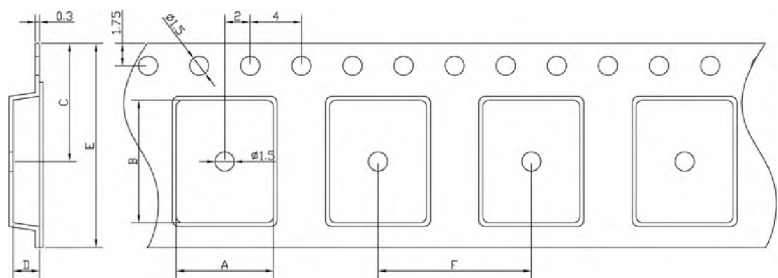
3) force : 20~70g



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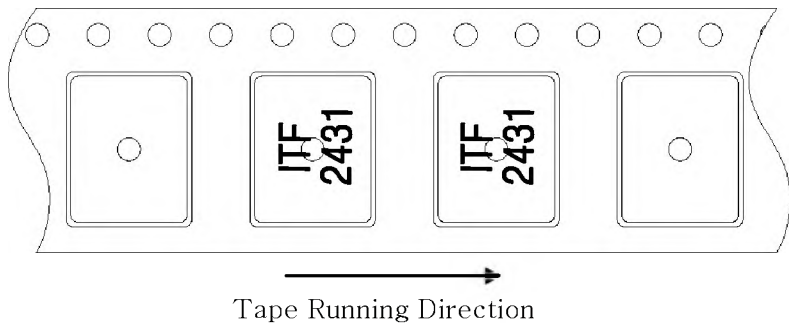


Carrier Tape Dimensions [unit : mm]

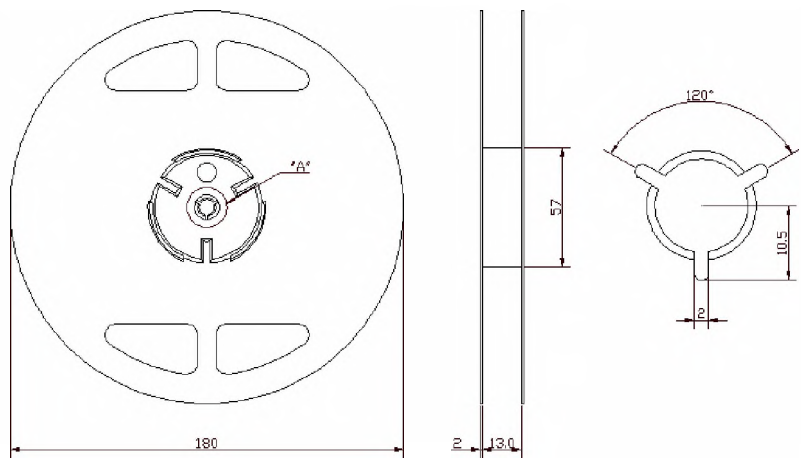


A	4.30 ± 0.1
B	4.30 ± 0.1
C	7.25 ± 0.1
D	1.70 ± 0.1
E	12.00 ± 0.1
F	8.00 ± 0.1

Part Direction



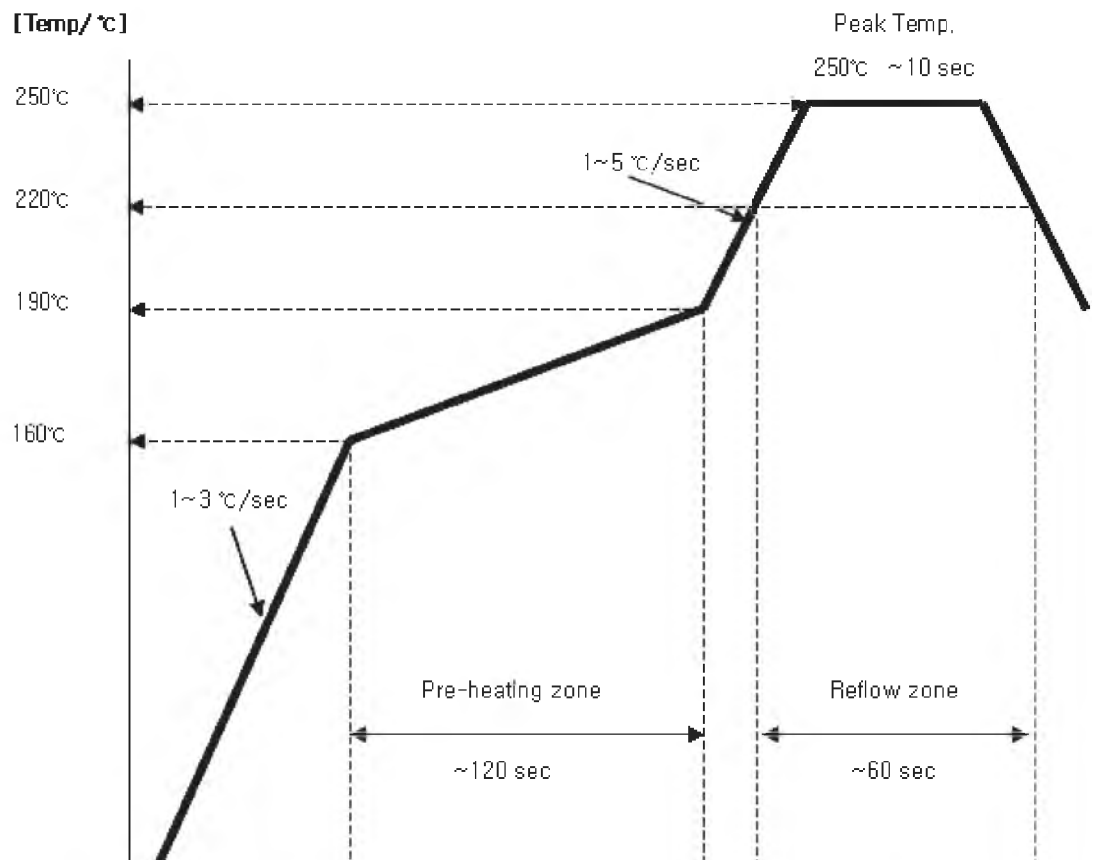
Reel Dimensions [unit : mm]



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Reflow Condition



Comment) The quality is guaranteed under this temperature conditions on 2 times solder reflows

Cautions

1. This is a hermetic device.
- MSL (Moisture Sensitive Level) is the 1st level
2. This is an electrostatic sensitive device. Please avoid static voltage during operation and storage.
- ESD (Electrostatic Discharge) Rating is class 0. (Test : HBM-Human Body Model)
3. Ultrasonic cleaning shall be avoided.
4. This device should not be used in any type of fluid such as water, oil , organic solvent ,etc.

Manual soldering process

- approximately 350 °C in 15 to 20 seconds to be completed