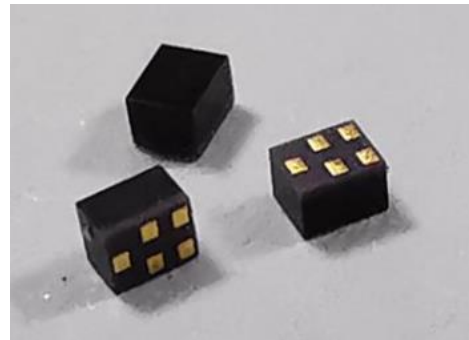


WUHAN YANXI MICRO-COMPONENT CO.,LTD.			
DATE	July. 22. 2020	System	
Part Number	SR410MF5A001	Version 1.0	Original

408MHz-413.5MHz Filter Standard Specifications



Product Features

- Typical insertion loss in the pass band is less than 3.0dB
- Plastic Chip Scale Package(CSP)
- Miniature Size
 - 1.1 mm X 0.9 mm Footprint
 - 0.6mm Max Height
- RoHS compliant, Pb-free

Applications

- 408-413.5MHz bandpass filter
- Handsets
- Portable Hotspots
- Mobile Routers
- Smart Meters
- Access Points

Description

It is a high-performance, high power Surface Acoustic Wave (SAW) band-pass filter with extremely steep skirts, simultaneously exhibiting low loss in the 408-413.5MHz band.

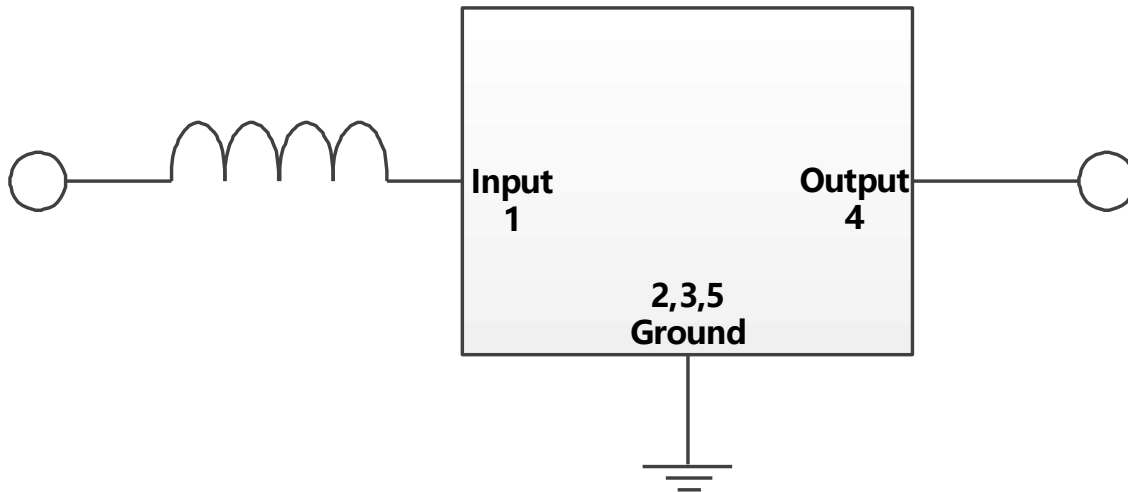
Matching circuit

Input terminating impedance

$Z_{IN} = 50 \Omega$ with series 1 nH

Output terminating impedance

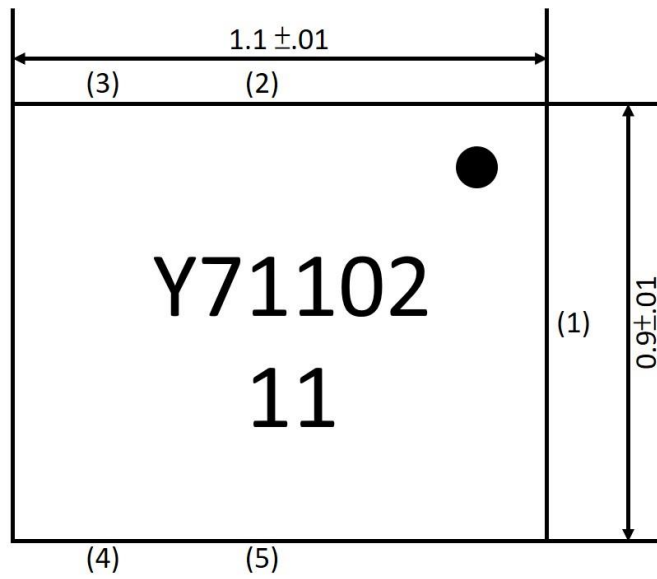
$Z_{OUT} = 50 \Omega$



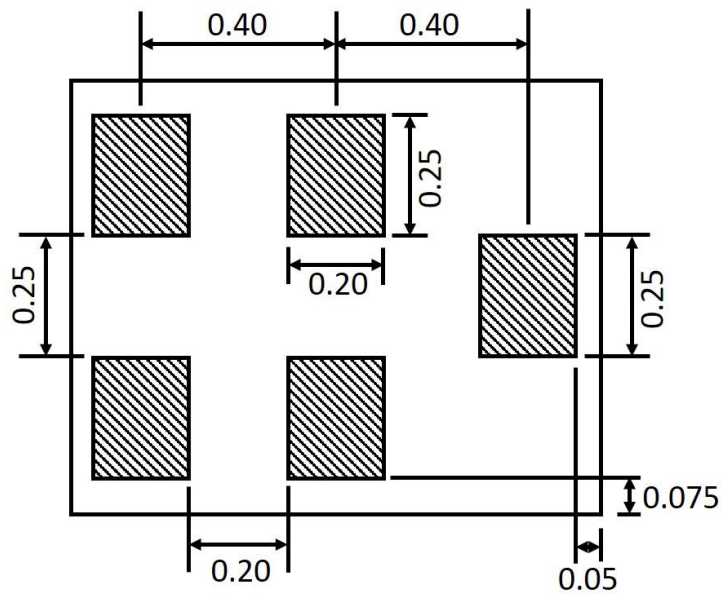
General Description

Pin No.	Symbol	DESCRIPTION
1	IN	RF input
2	GND	Ground connection
3	GND	Ground connection
4	OUT	ANT Antenna Port
5	GND	Ground connection

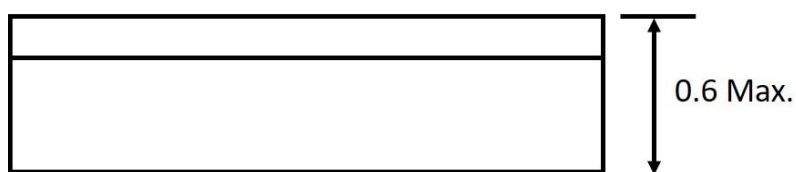
Top View



Bottom View



Side View

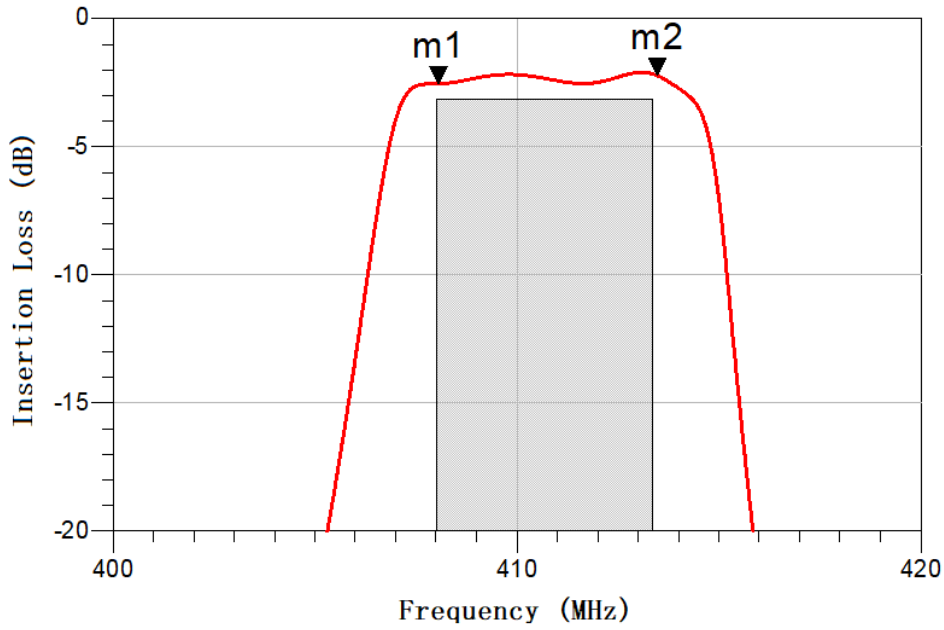


Electrical Specifications

Characteristics	Unit	Min	Typ ⁽¹⁾	Max
Bandpass Filter (408~413.5 MHz)		@+25° C		
Insertion Loss		dB		
Insertion loss	408~413.5MHz	-	3.0	3.0@-40~+85°C
Amplitude Ripple	408~413.5 MHz	-	1.0	2.0@-40~+80°C
Input / Output VSWR	408~413.5 MHz	-	-	2.0
Minimum Attenuation		dB		
	DC~387MHz	50	53	-
	387~397MHz	40	48	-
	427~437MHz	40	41	-
	437~812MHz	50	53	-
Input / Output				
Input / Output Impedance		Ω	50	
Maximum Input Power		dBm	20	-
Operating Conditions				
Operating Temperature		°C	-40°C ~ +85°C	
Relative Humidity		%	10% ~ 90%	
Air Pressure		KPa	86 ~ 106	

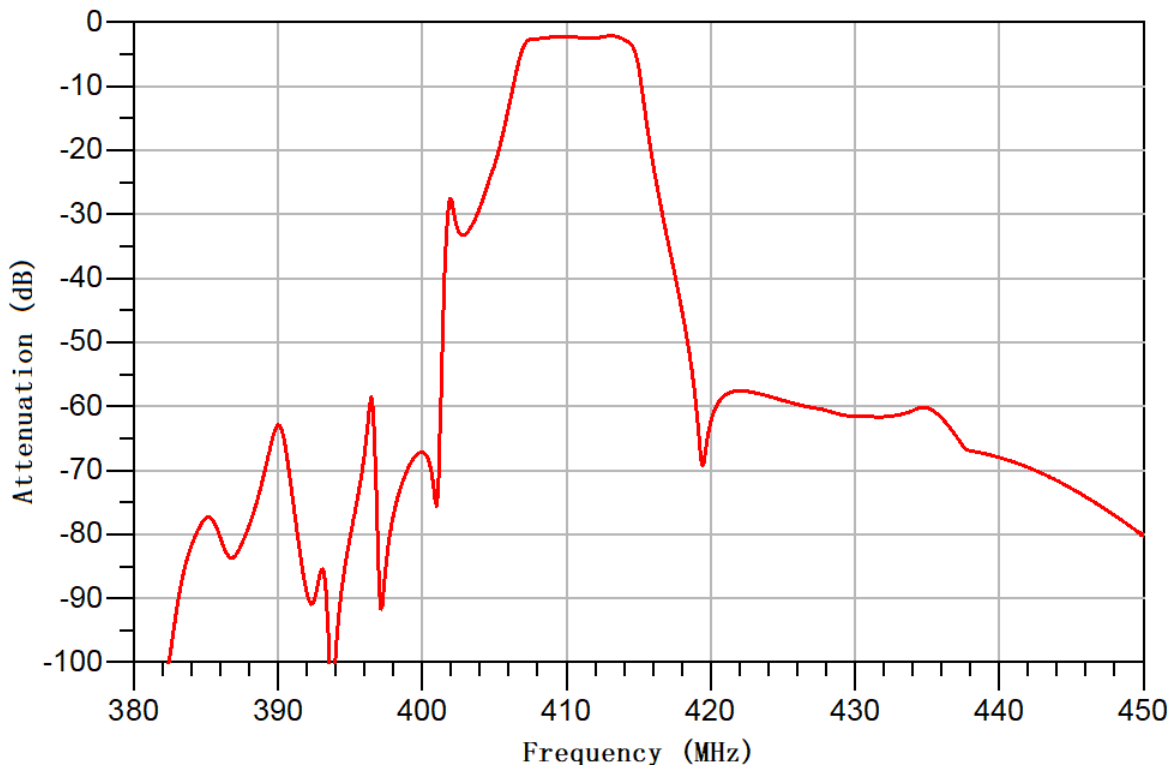
(1) : The typical value is average value of each frequency band.

Transmission coefficient



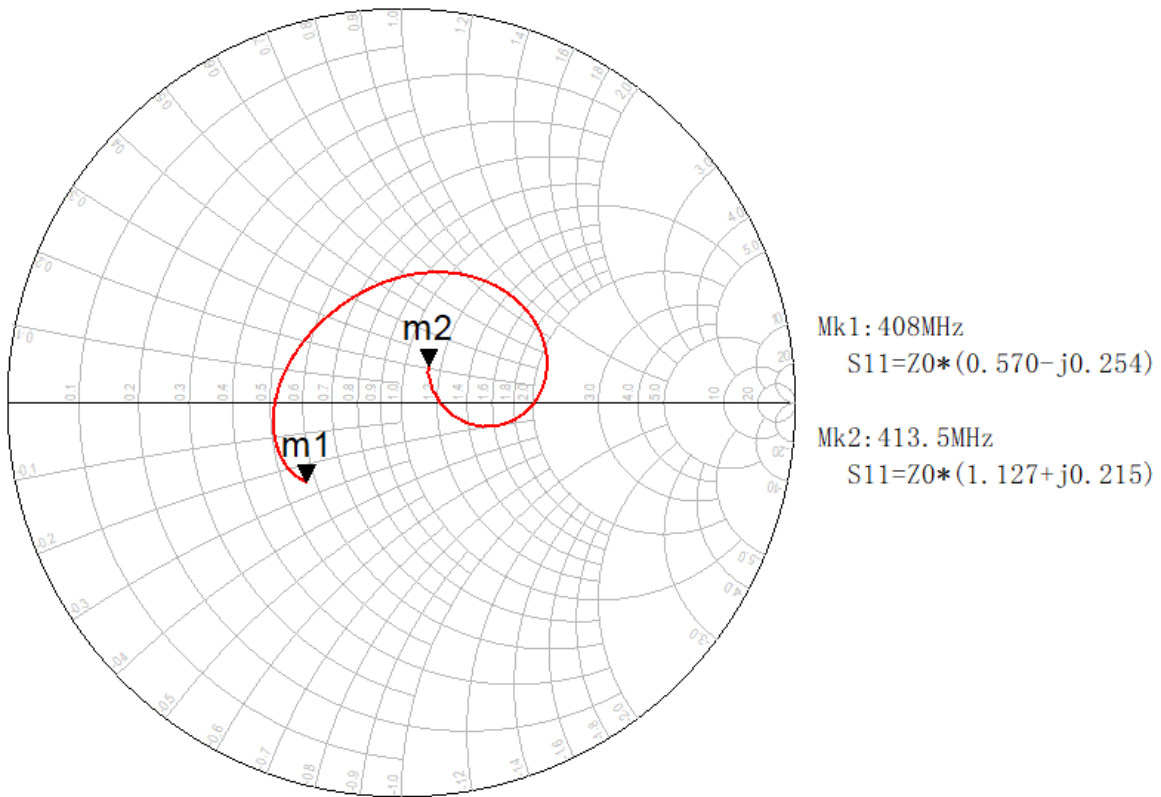
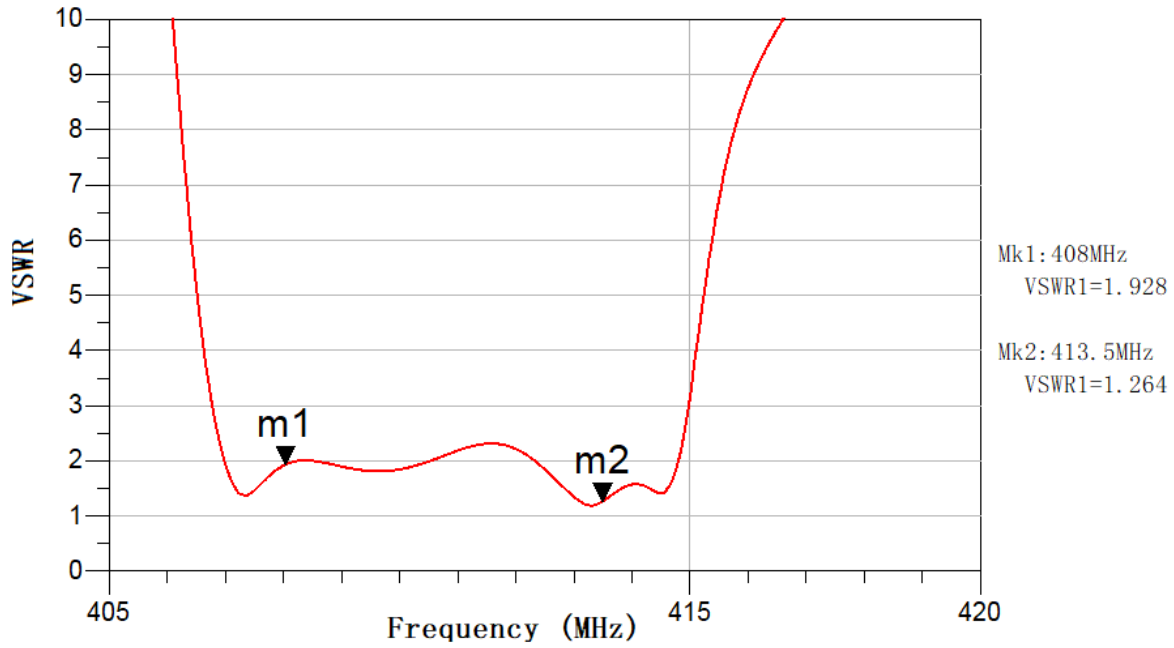
m1
freq=408.0MHz
dB(S(2,1))=-2.557

m2
freq=413.5MHz
dB(S(2,1))=-2.234



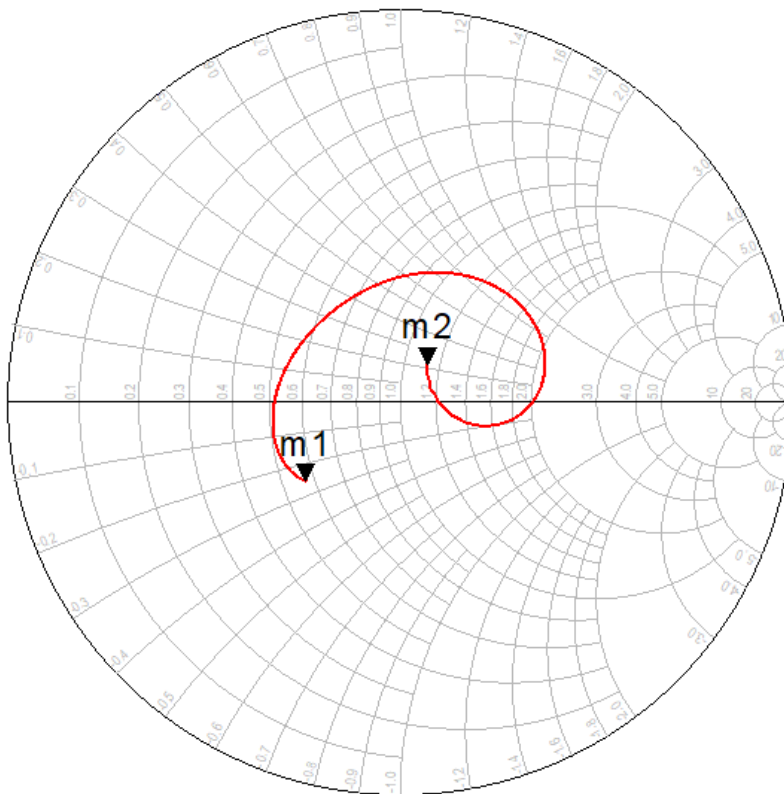
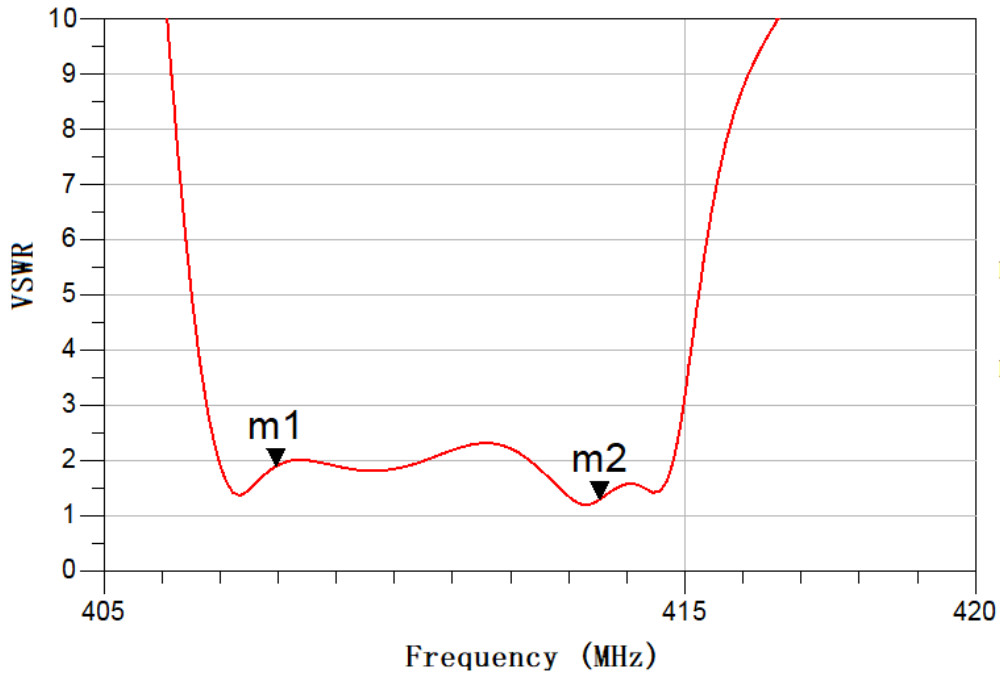
Reflection coefficients

Input Port



freq (408.0MHz to 413.5MHz)

Output Port



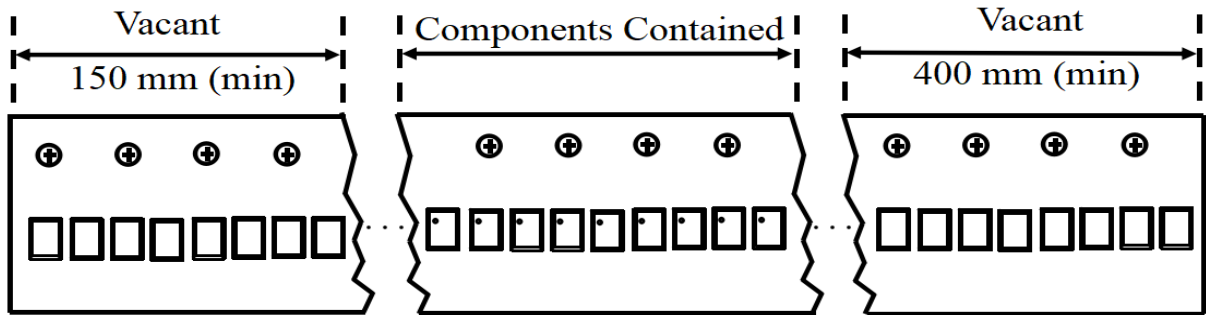
Mk1: 408MHz
S₂₂=Z₀*(0.57-j0.254)

Mk2: 413.5MHz
S₂₂=Z₀*(1.126+j0.222)

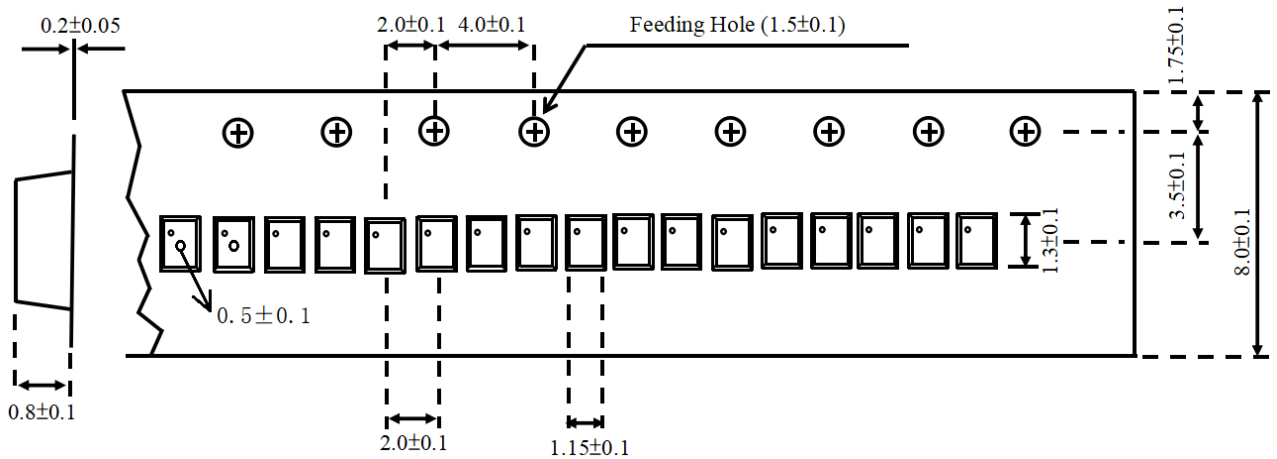
freq (408.0MHz to 413.5MHz)

Packing

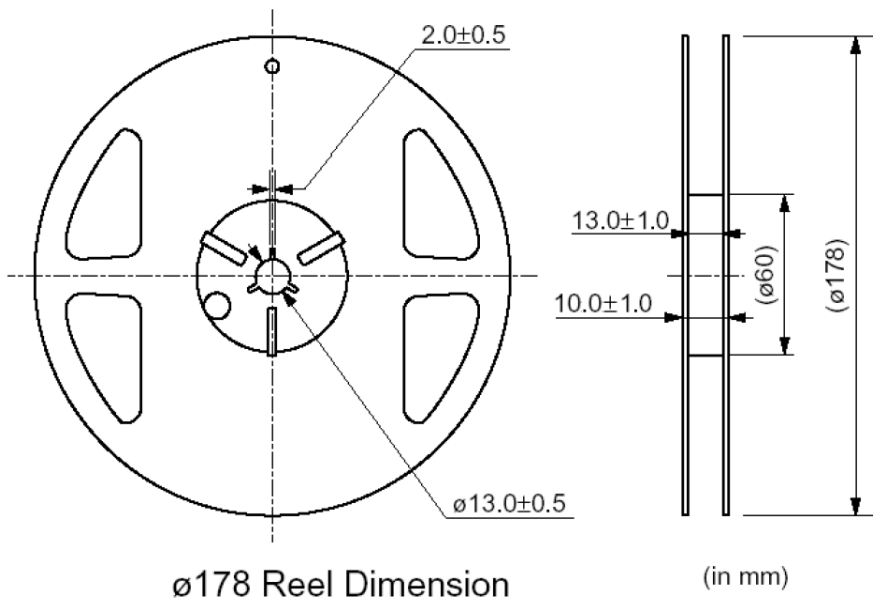
(1).Leader part and vacant position specifications



(2).Tape Specifications



10000 pcs/reel ϕ 178mm



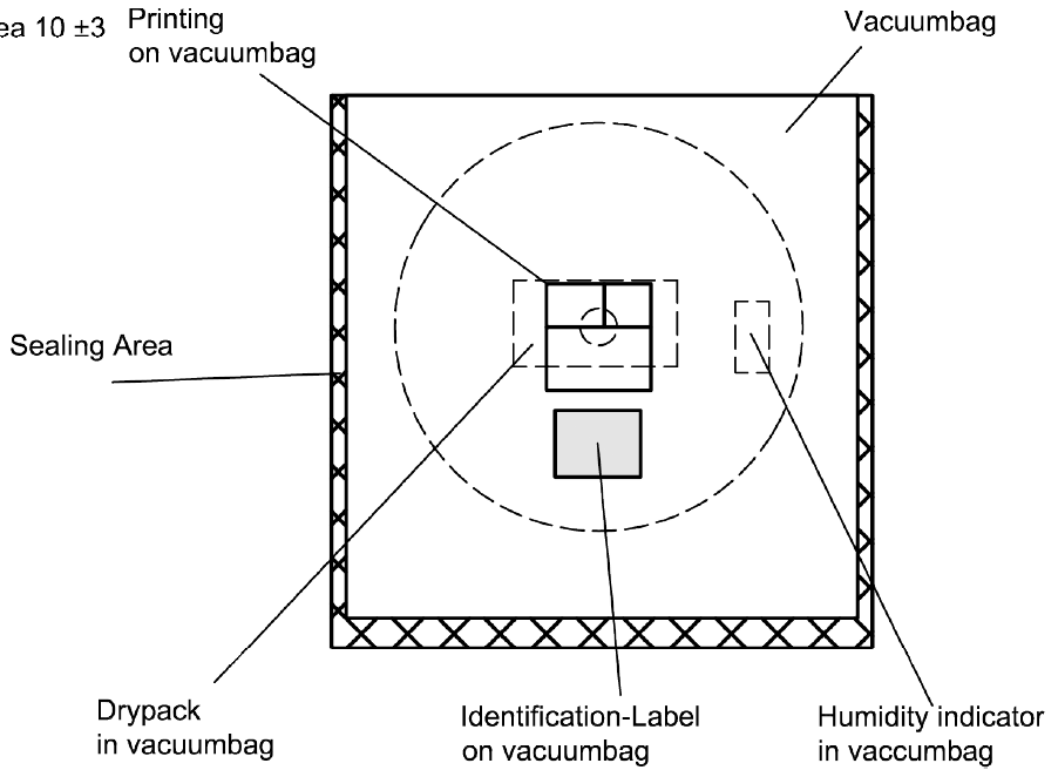
(3).Carton Box

Dimensions [mm]

X = 220+5

Y = 235+5

Sealing area 10 ±3



Drawing of moisture barrier bag (MBB) for reel with diameter of 178 mm

Dimensions [mm]

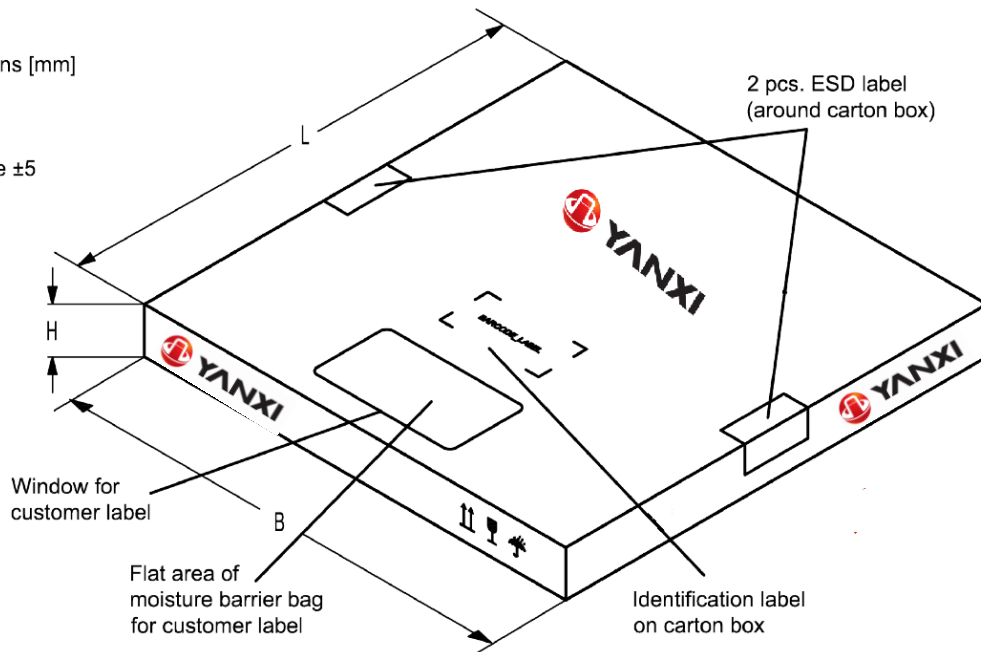
L = 188

B = 188

H = 30

Tolerance ±5

2 pcs. ESD label
(around carton box)



Drawing of folding box for reel with diameter of 178 mm

History Record

Date	Spec.NO.	Part NO.	Modify Content	Remark

Contact Information

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