



HANGZHOU SAPPLAND MICROELECTRONICS TECHNOLOGY CO., LTD

SAW Device Preliminary Data Sheet

Band 28F Duplexer / Unbalanced /1814

PN: SPED28FU11A

Rev: 0.3

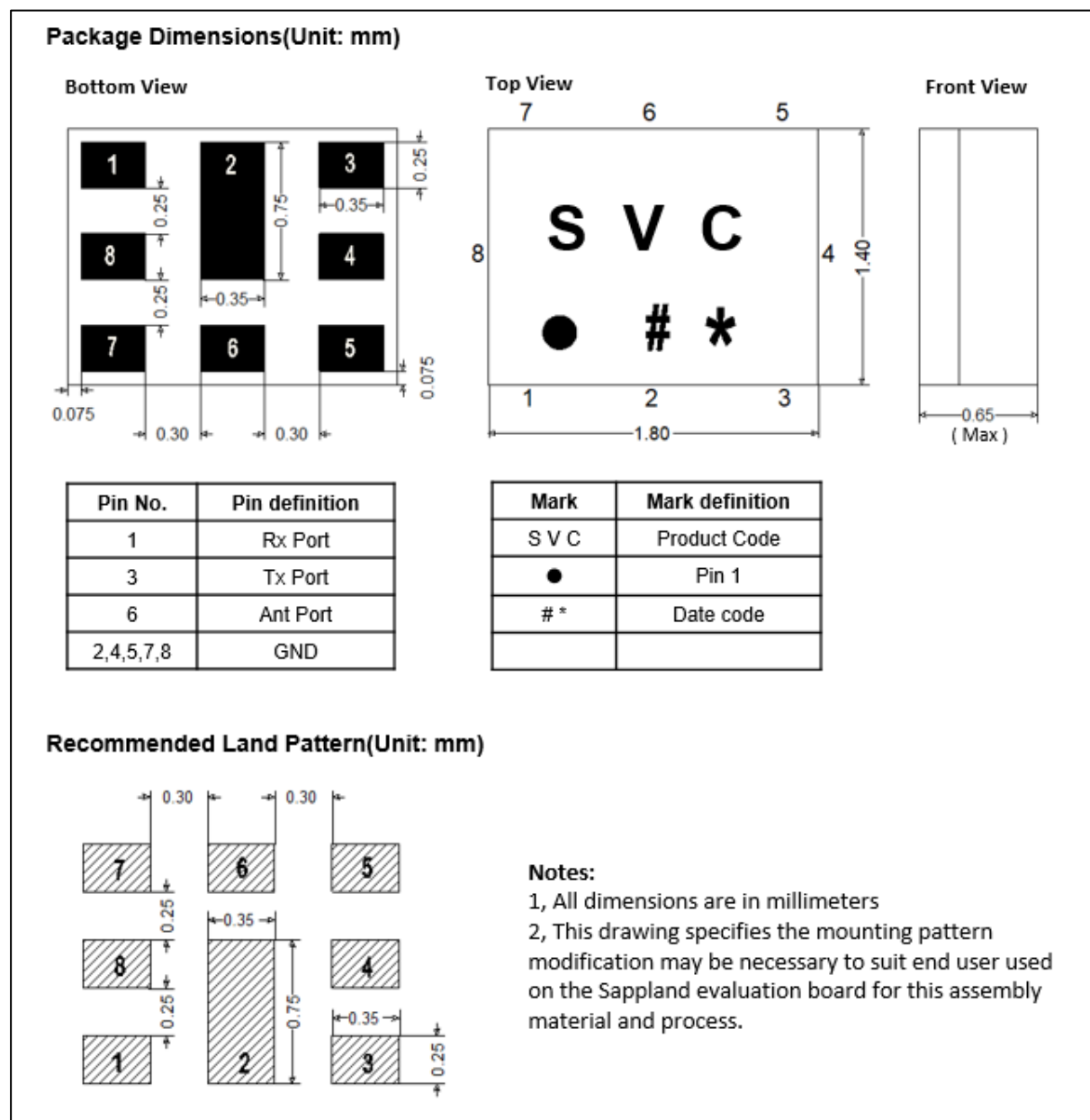
Feature:

- low insertion loss
- high isolation between Tx and Rx

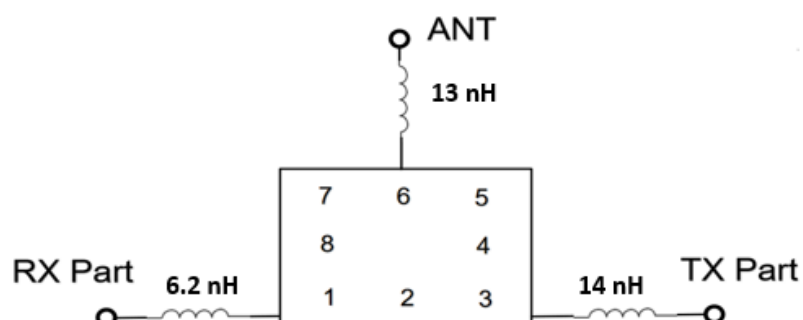
1.Revision History

Revision	Date	Comments
0.1	Nov-27-2023	Initial release
0.2	Feb-27-2024	Update mark definition and electrical specification table
0.3	Sep-09-2024	Update performance table, plot, packing Qty'

2.Package and Pin map



Application circuit (with ideal components)



3. Performance

3.1 Absolute maximum ratings

Item	Rating	Note
Storage Temperature	-40 ~ 85 °C	
Operating Temperature	-30 ~ 85 °C	
Input Power Max	30 dBm	CW, 5000h, 50°C
D.C Voltage between the terminals	3 V	25±2deg.C

3.2 Electrical specification

Tx Electrical specification (-30 to +85 °C)

TX to ANT		Characteristics			Unit	Note
		min	Typ. ¹	max		
Center Frequency		-	725.5	-	MHz	
Insertion Loss	705.50 ~ 745.50 MHz		1.4	2.4	dB	
	703.00 ~ 748.00 MHz		1.4	2.5	dB	
Amplitude ripple	703.00 ~ 748.00 MHz		1.2	2.0	dB	
VSWR	703.00 ~ 748.00 MHz		1.5	2.1	-	Tx
	703.00 ~ 748.00 MHz		1.5	2.1	-	ANT
Absolute attenuation	10.00 ~ 670.00 MHz	30	36		dB	
	758.00 ~ 803.00 MHz	40	50		dB	
	859.00 ~ 894.00 MHz	35	48		dB	
	1164.00 ~ 1250.00 MHz	35	43		dB	
	1406.00 ~ 1496.00 MHz	35	42		dB	
	1559.00 ~ 1607.00 MHz	35	42		dB	
	1710.00 ~ 1785.00 MHz	35	43		dB	
	1805.00 ~ 1880.00 MHz	35	42		dB	
	1930.00 ~ 1995.00 MHz	35	43		dB	
	2010.00 ~ 2025.00 MHz	35	43		dB	
	2109.00 ~ 2244.00 MHz	35	43		dB	
	2300.00 ~ 2400.00 MHz	35	43		dB	
	2400.00 ~ 2500.00 MHz	35	44		dB	
	2200.00 ~ 2700.00 MHz	35	44		dB	
	2496.00 ~ 2690.00 MHz	35	44		dB	
	2812.00 ~ 2992.00 MHz	35	45		dB	
	3300.00 ~ 5000.00 MHz	35	44		dB	
	4900.00 ~ 5950.00 MHz	35	48		dB	

1) Typical value at 25±2deg.C

Rx Electrical specification (-30 to +85 °C)

ANT to RX		Characteristics			Unit	Note
		min	Typ. ¹	max		
Center Frequency		-	780.5	-	MHz	
Insertion Loss	760.50 ~ 800.50 MHz		1.4	2.3	dB	
	758.00 ~ 803.00 MHz		1.6	2.5	dB	
Amplitude ripple	758.00 ~ 803.00 MHz		1.0	2.0	dB	
VSWR	758.00 ~ 803.00 MHz		1.5	2.1	-	Rx
	758.00 ~ 803.00 MHz		1.5	2.5	-	ANT
Absolute attenuation	10.00 ~ 699.00 MHz	40	48		dB	
	699.00 ~ 703.00 MHz	45	58		dB	
	703.00 ~ 748.00 MHz	40	56		dB	
	814.00 ~ 849.00 MHz	10	18		dB	
	880.00 ~ 915.00 MHz	40	50		dB	
	925.00 ~ 960.00 MHz	35	45		dB	
	1710.00 ~ 1785.00 MHz	45	56		dB	
	1850.00 ~ 1910.00 MHz	45	59		dB	
	1920.00 ~ 1980.00 MHz	45	61		dB	
	2400.00 ~ 2484.00 MHz	45	65		dB	
	2496.00 ~ 2690.00 MHz	45	65		dB	
	3300.00 ~ 5000.00 MHz	45	80		dB	
	4220.00 ~ 4340.00 MHz	45	80		dB	
	4900.00 ~ 5950.00 MHz	45	80		dB	

1) Typical value at 25±2deg.C

2) Valid for typical temperature 25±2deg.C

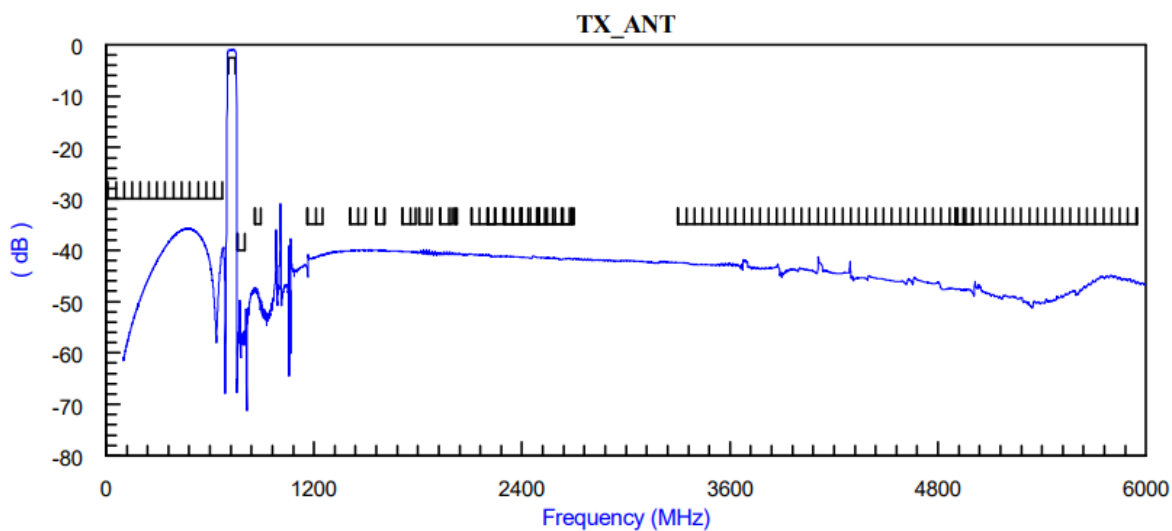
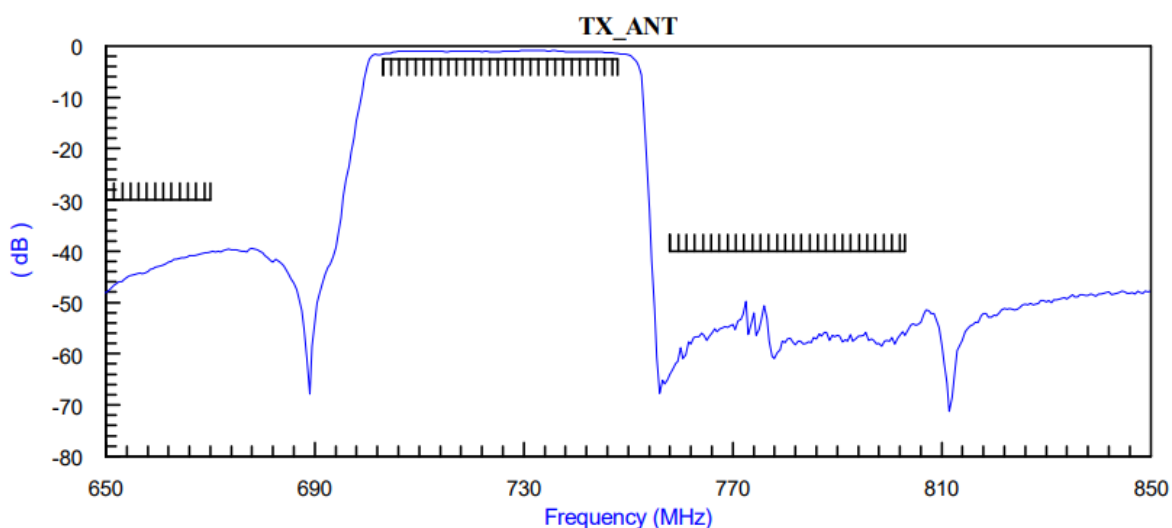
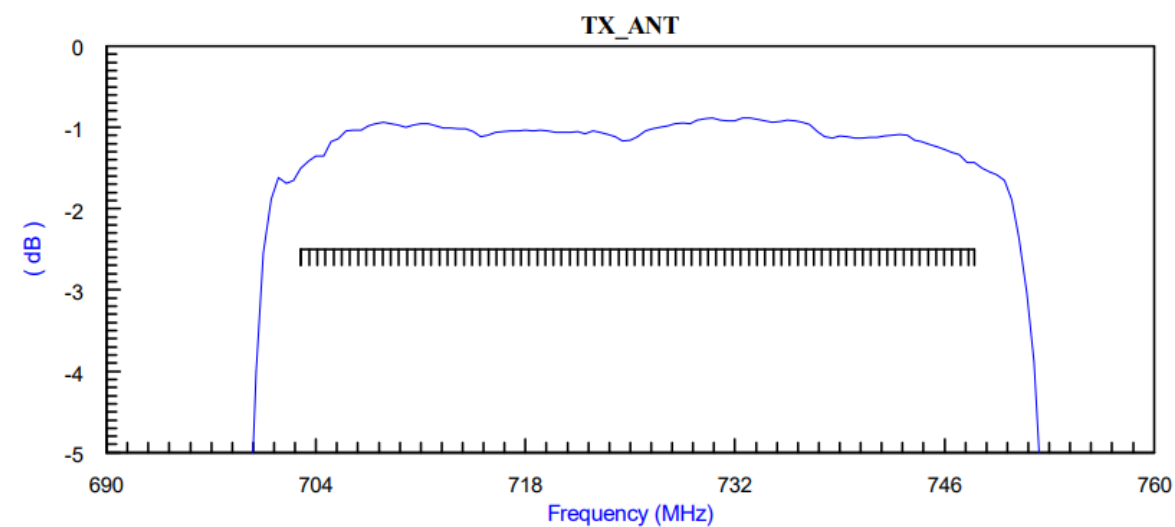
Tx/Rx Electrical specification (-30 to +85 °C)

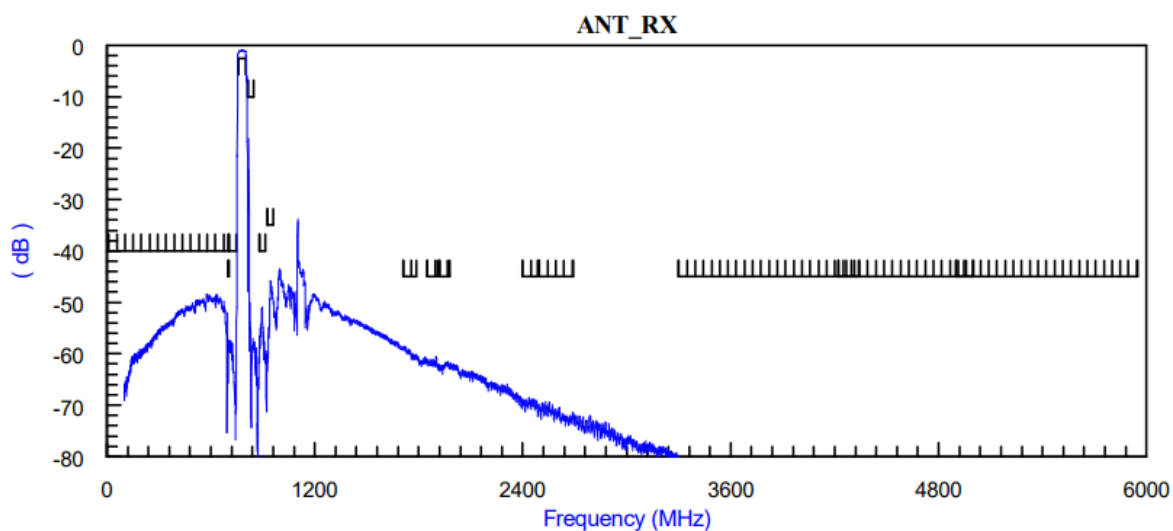
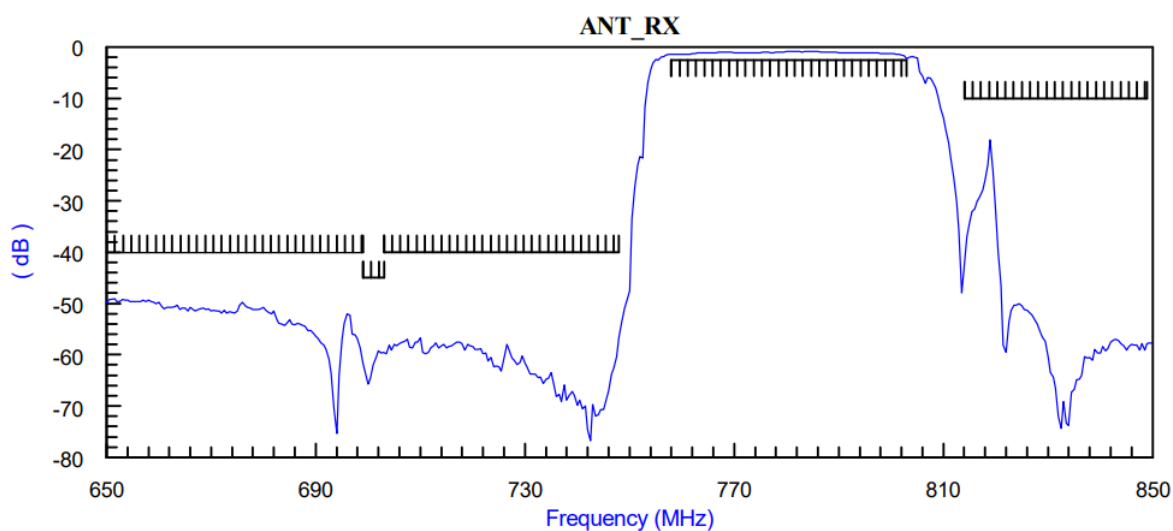
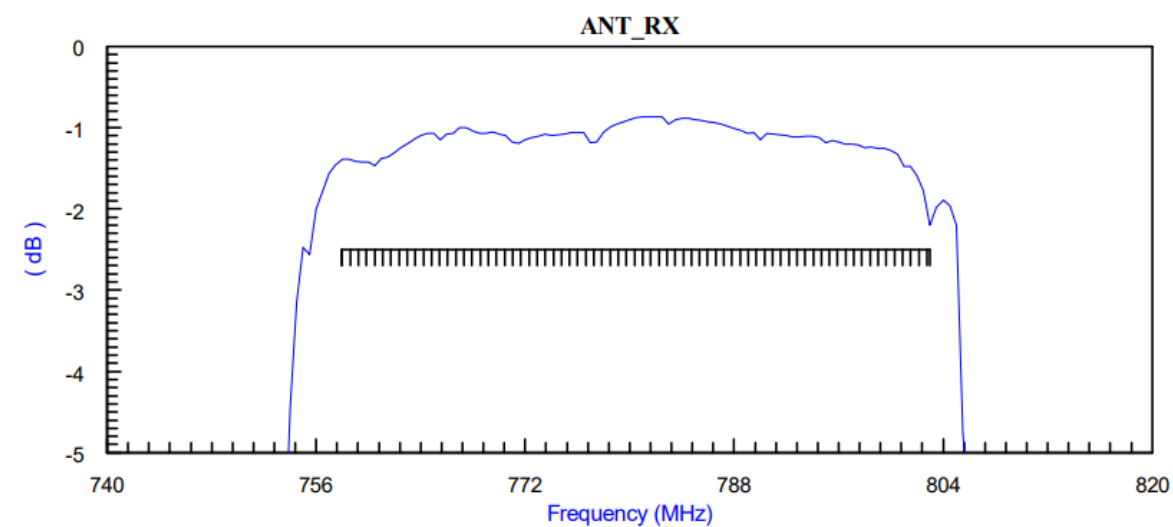
TX / RX		Characteristics			Unit	Note
		min	Typ. ¹	max		
Isolation	703.00 ~ 748.00 MHz	51	55		dB	
	758.00 ~ 803.00 MHz	51	55		dB	

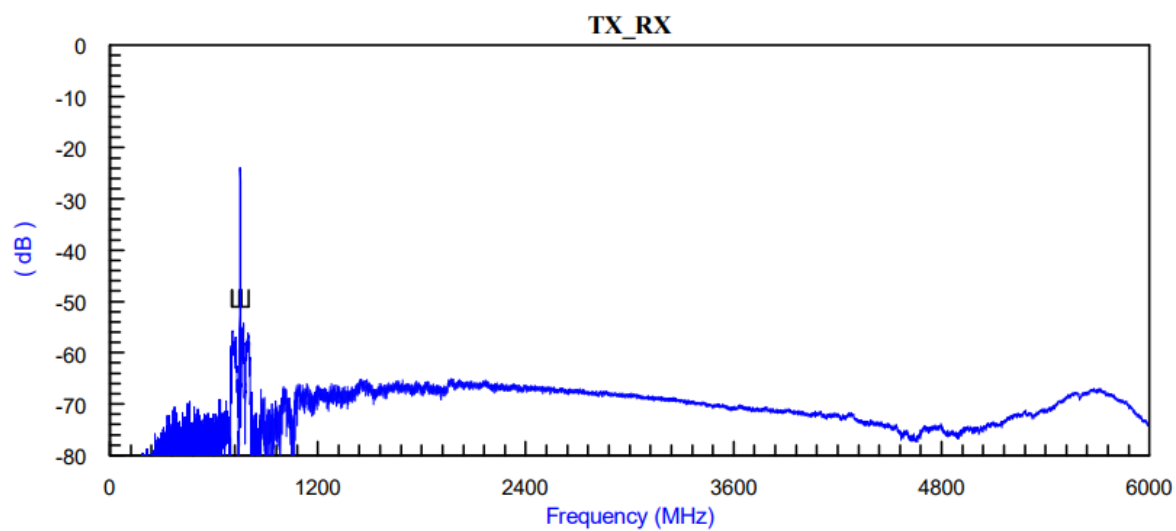
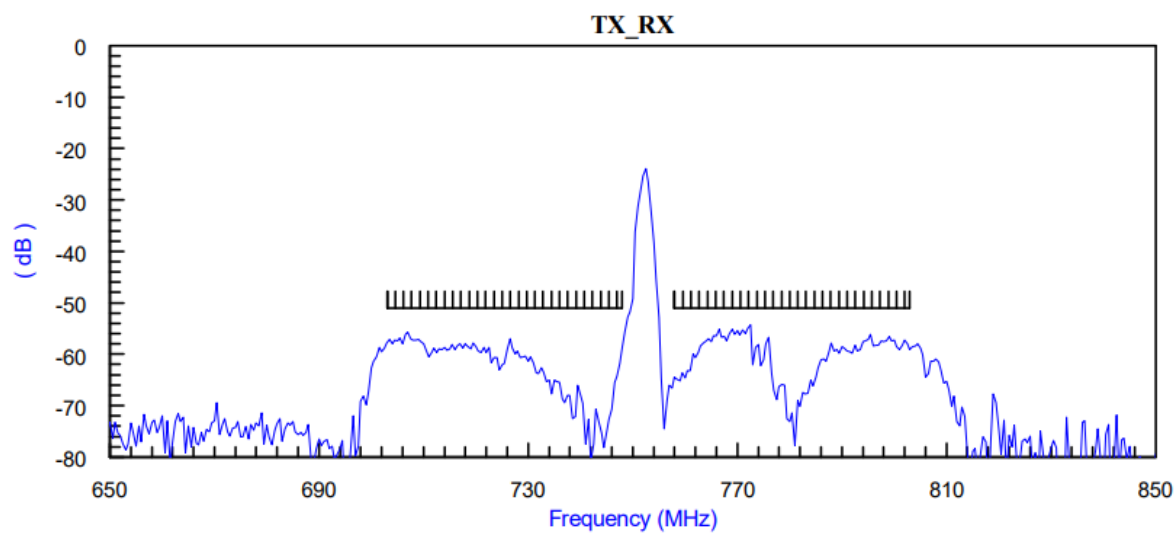
1) Typical value at 25±2deg.C

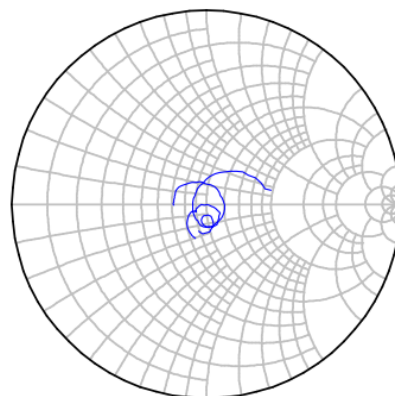
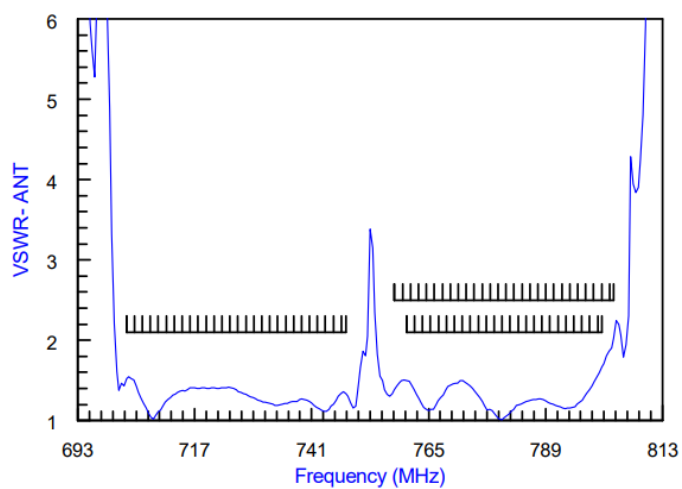
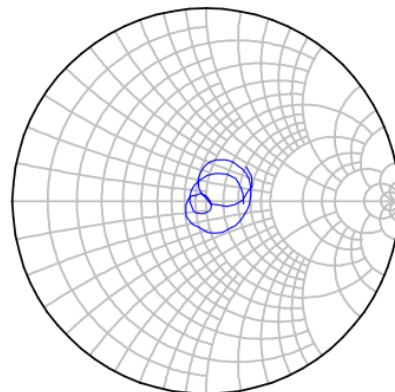
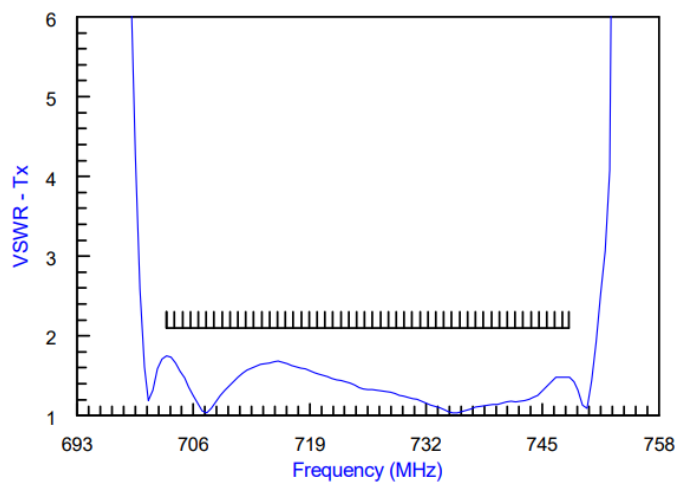
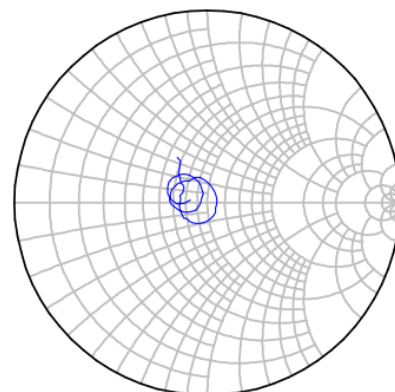
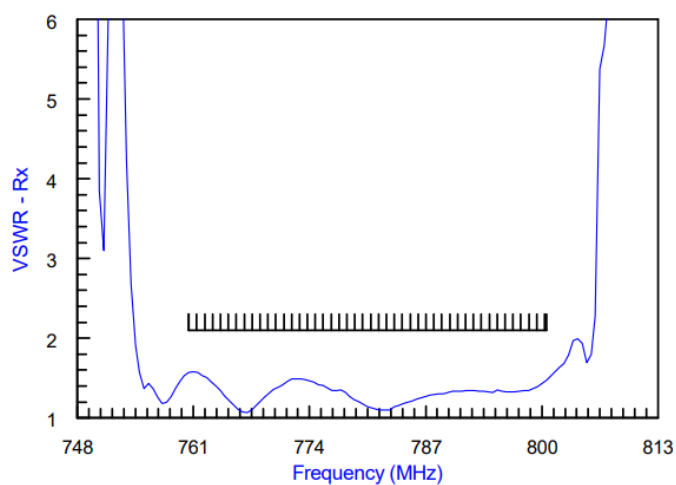
3.3 Plots

Tx-Ant



Ant – Rx

Tx-Rx

Ant – VSWR / Impedance**Tx – VSWR / Impedance****Rx – VSWR / Impedance**

4.Packing Information

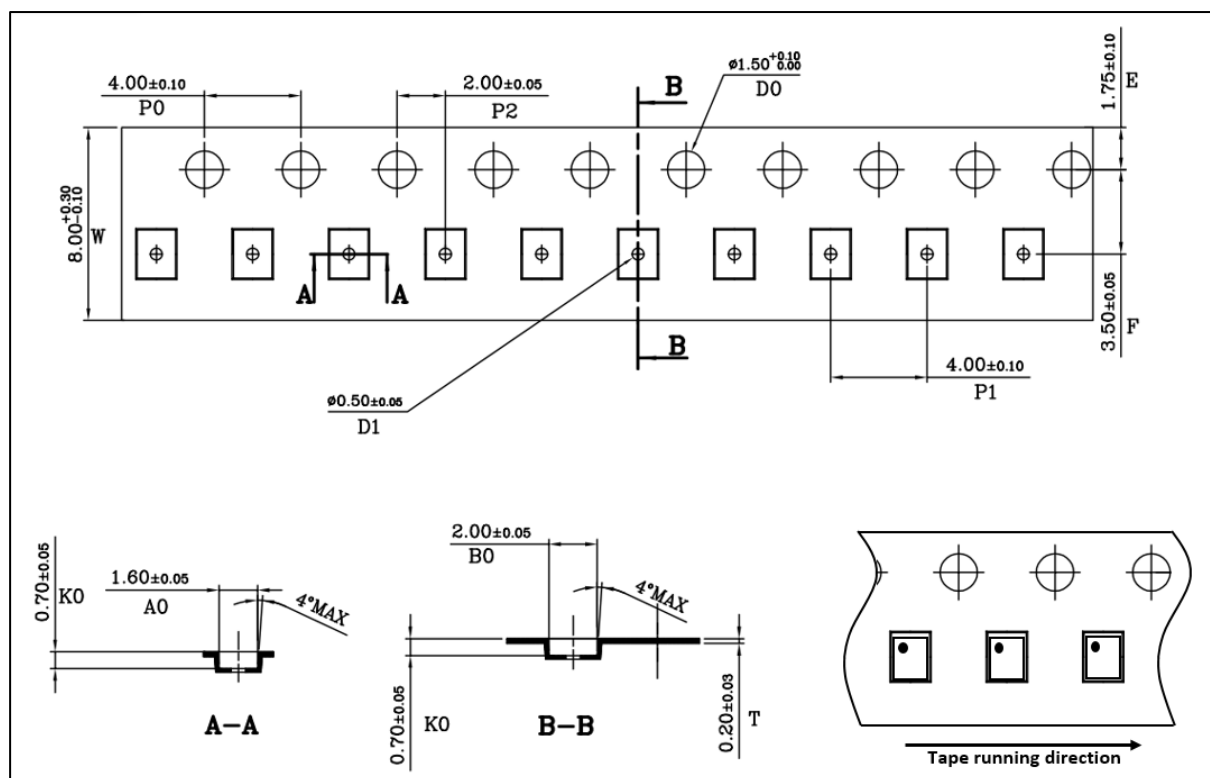


Figure 4-1 Carrier Tape Drawing (unit: mm)

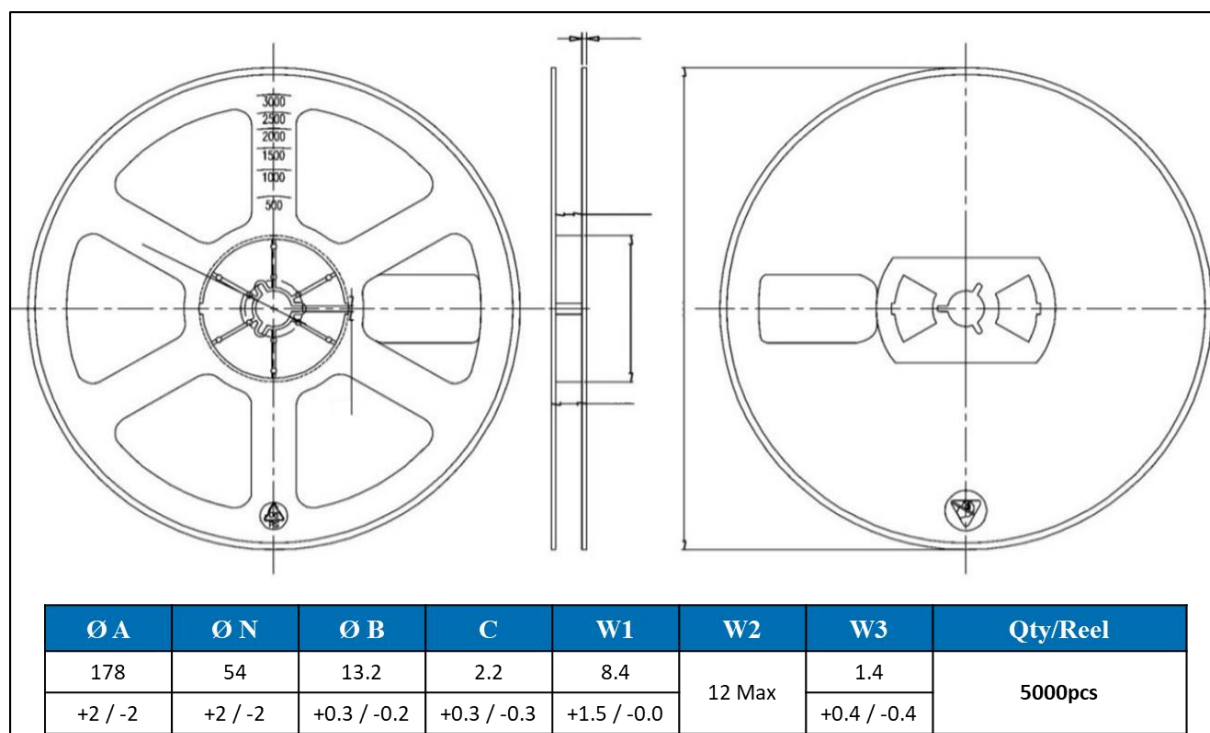


Figure 4-2 Reel Dimensions (Unit: mm) and Reeling Qty'