



HANGZHOU SAPPLAND MICROELECTRONICS TECHNOLOGY CO., LTD

SAW Device Data Sheet

Band 25 Duplexer / Unbalanced /1612

PN: SPED25SU11F

Rev: 1.0

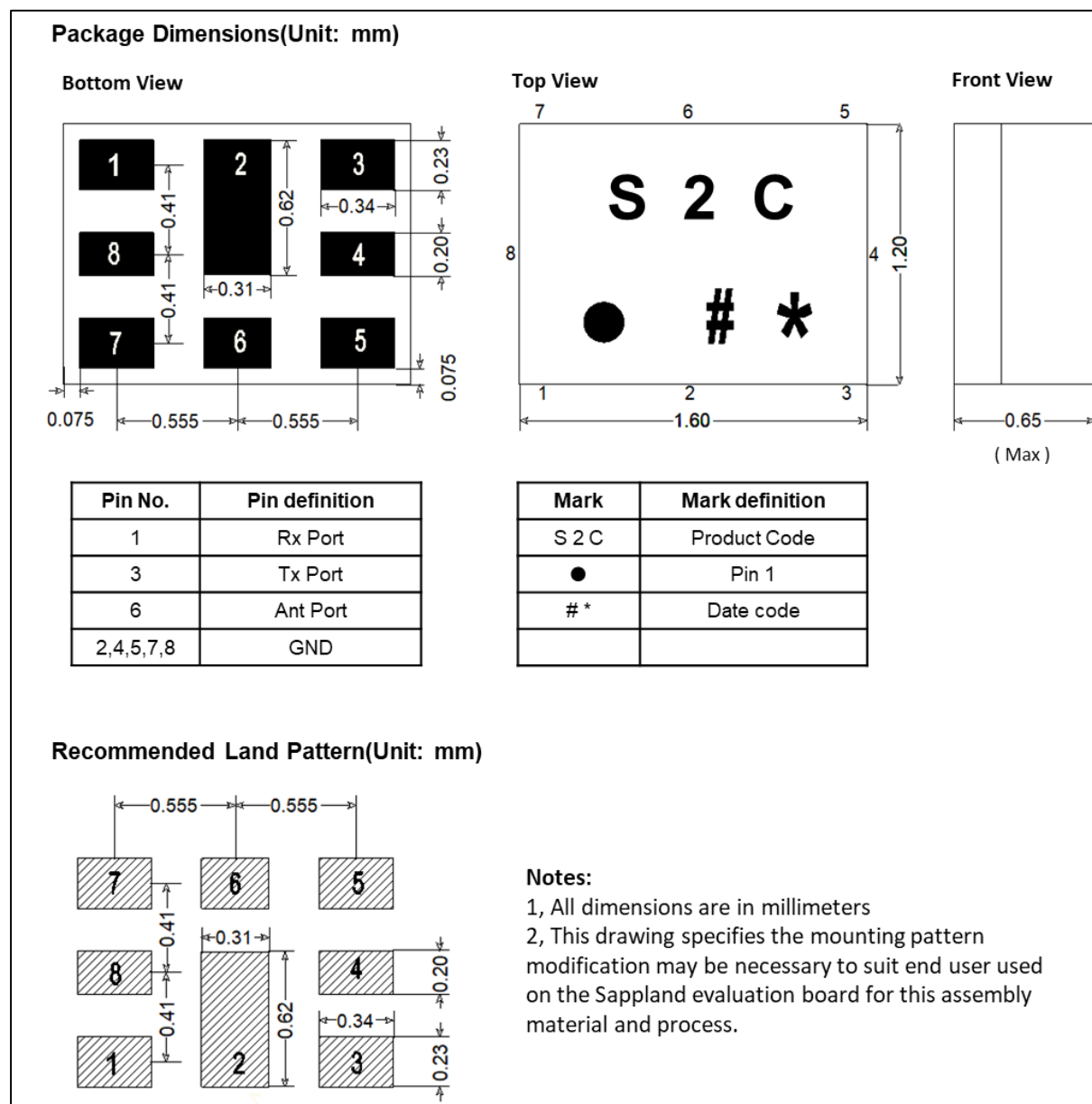
Feature:

- low insertion loss
- high isolation between Tx and Rx

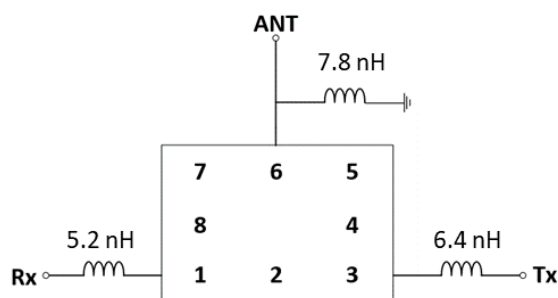
1.Revision History

Revision	Date	Comments
1.0	Nov-12-2024	Initial release

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,55°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		-	1882.5	-	MHz	
Insertion Loss	1852.50 ~ 1912.50 MHz		1.5	2.3	dB	
	1850.00 ~ 1915.00 MHz		1.7	2.7	dB	
Amplitude ripple	1850.00 ~ 1915.00 MHz		0.9	2.0	dB	
VSWR	1850.00 ~ 1915.00 MHz		1.5	2.0	-	Tx
	1850.00 ~ 1915.00 MHz		1.5	2.0	-	ANT
Absolute attenuation	10.00 ~ 616.00 MHz	40	52		dB	
	617.00 ~ 652.00 MHz	40	51		dB	
	699.00 ~ 716.00 MHz	40	49		dB	
	728.00 ~ 768.00 MHz	40	48		dB	
	852.00 ~ 894.00 MHz	40	46		dB	
	1166.00 ~ 1187.00 MHz	35	43		dB	
	1225.00 ~ 1250.00 MHz	35	43		dB	
	1559.00 ~ 1607.00 MHz	40	45		dB	
	1932.50 ~ 1992.50 MHz	45	53		dB	
	2110.00 ~ 2200.00 MHz	38	45		dB	
	2350.00 ~ 2360.00 MHz	40	51		dB	
	2400.00 ~ 2500.00 MHz	30	34		dB	
	2496.00 ~ 2690.00 MHz	30	36		dB	
	3300.00 ~ 3800.00 MHz	20	23		dB	
	3700.00 ~ 3830.00 MHz	30	38		dB	
	5150.00 ~ 5455.00 MHz	25	34		dB	
	5520.00 ~ 5845.00 MHz	20	27		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		-	1962.5	-	MHz	
Insertion Loss	1932.50 ~ 1992.50 MHz		1.7	2.5	dB	
	1930.00 ~ 1995.00 MHz		2.1	3.1	dB	
Amplitude ripple	1930.00 ~ 1995.00 MHz		1.4	2.5	dB	
VSWR	1930.00 ~ 1995.00 MHz		1.7	2.1	-	Rx
	1930.00 ~ 1995.00 MHz		1.7	2.1	-	ANT
Absolute attenuation	10.00 ~ 662.00 MHz	45	50		dB	
	80.00 ~ 80.00 MHz	45	60		dB	
	699.00 ~ 716.00 MHz	40	49		dB	
	777.00 ~ 787.00 MHz	40	47		dB	
	814.00 ~ 849.00 MHz	40	46		dB	
	1710.00 ~ 1780.00 MHz	35	43		dB	
	1850.00 ~ 1915.00 MHz	40	50		dB	
	2055.00 ~ 2080.00 MHz	30	38		dB	
	2305.00 ~ 2315.00 MHz	35	42		dB	
	2400.00 ~ 2500.00 MHz	35	43		dB	
	2496.00 ~ 2690.00 MHz	35	39		dB	
	3300.00 ~ 3800.00 MHz	25	32		dB	
	3860.00 ~ 3990.00 MHz	25	54		dB	
	4900.00 ~ 5950.00 MHz	50	64		dB	
	5610.00 ~ 5845.00 MHz	50	64		dB	
	5790.00 ~ 5985.00 MHz	50	64		dB	

1) Typical value at 25±2deg.C

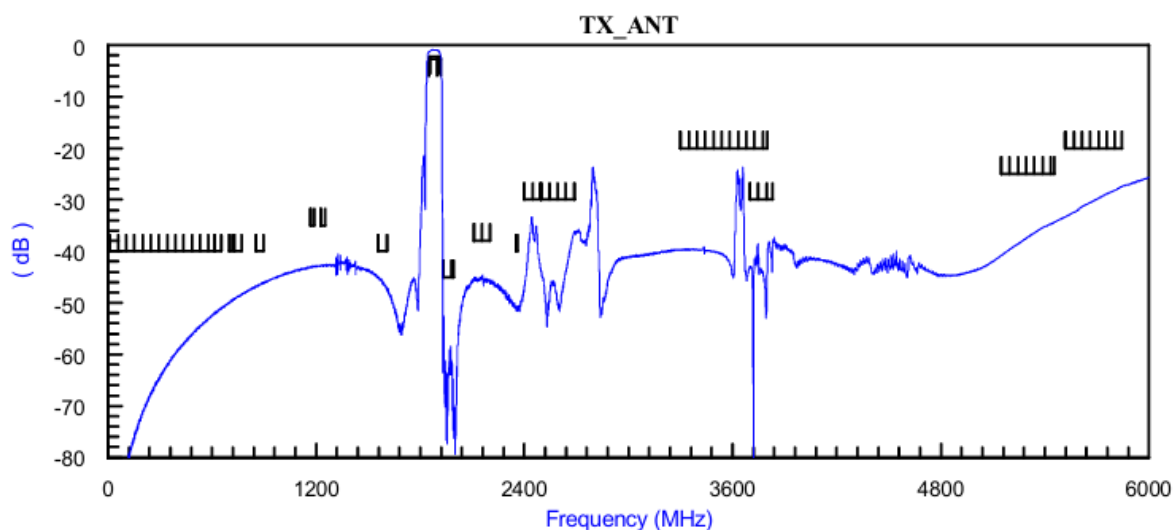
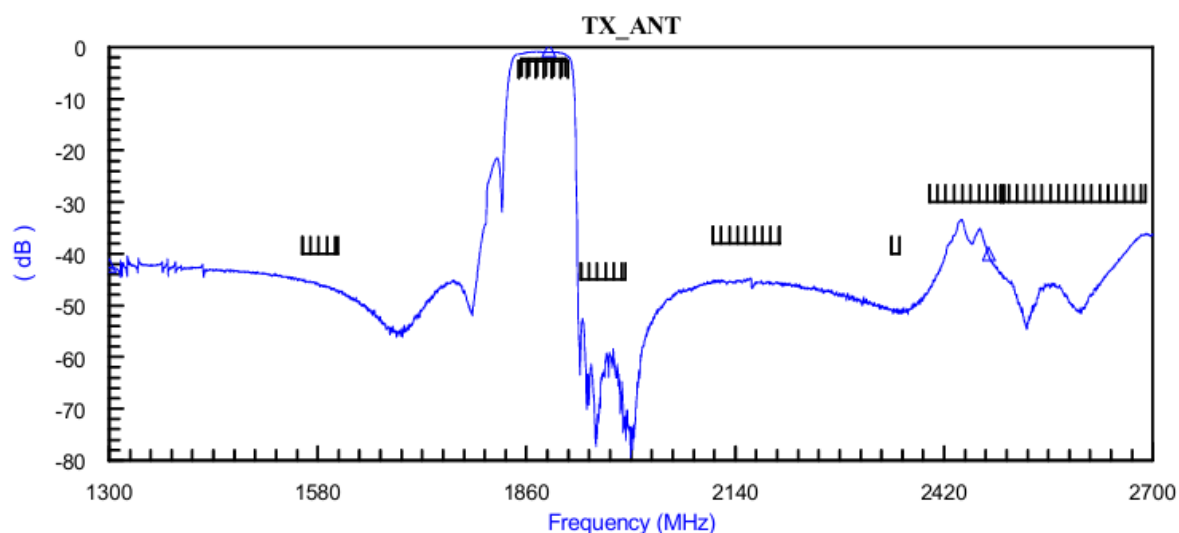
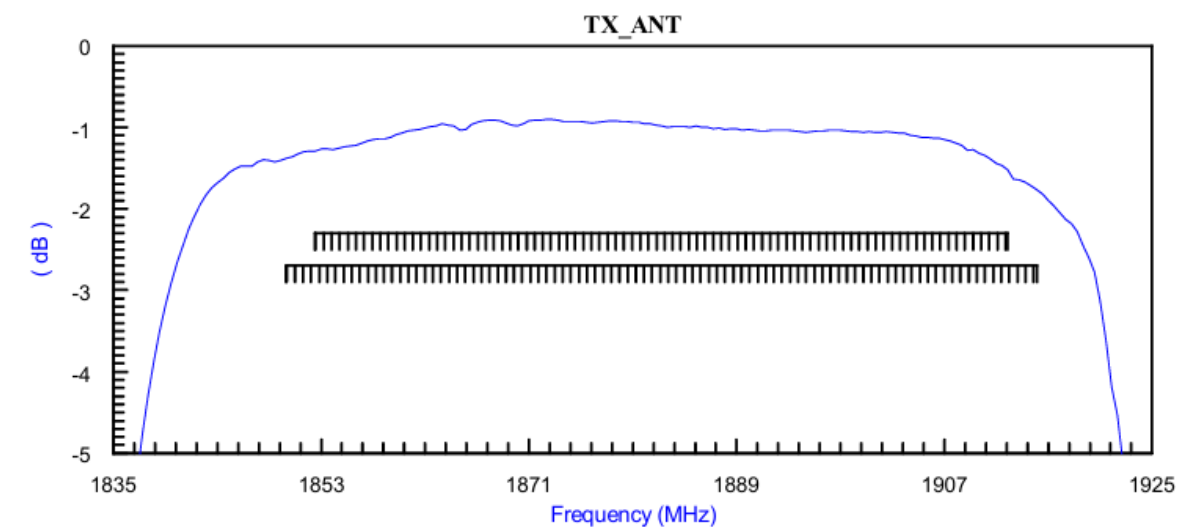
Tx/Rx Electrical specification (-30 to +85 °C)

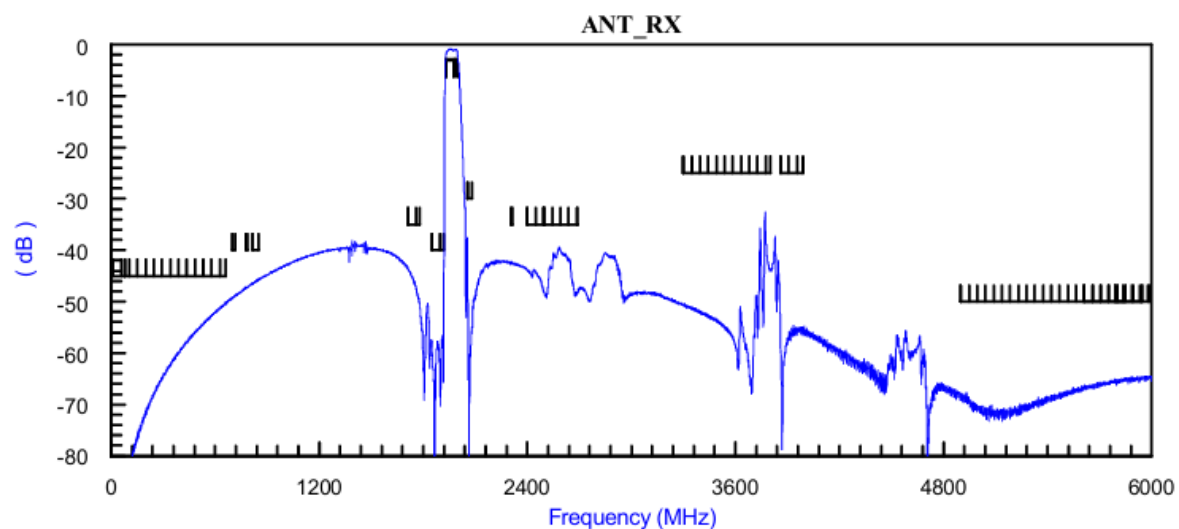
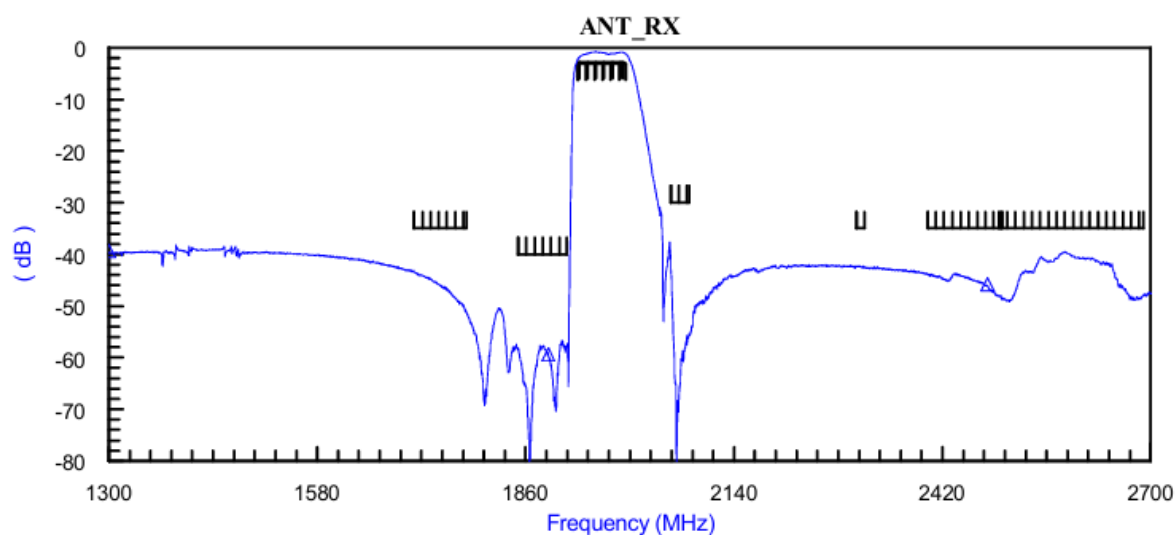
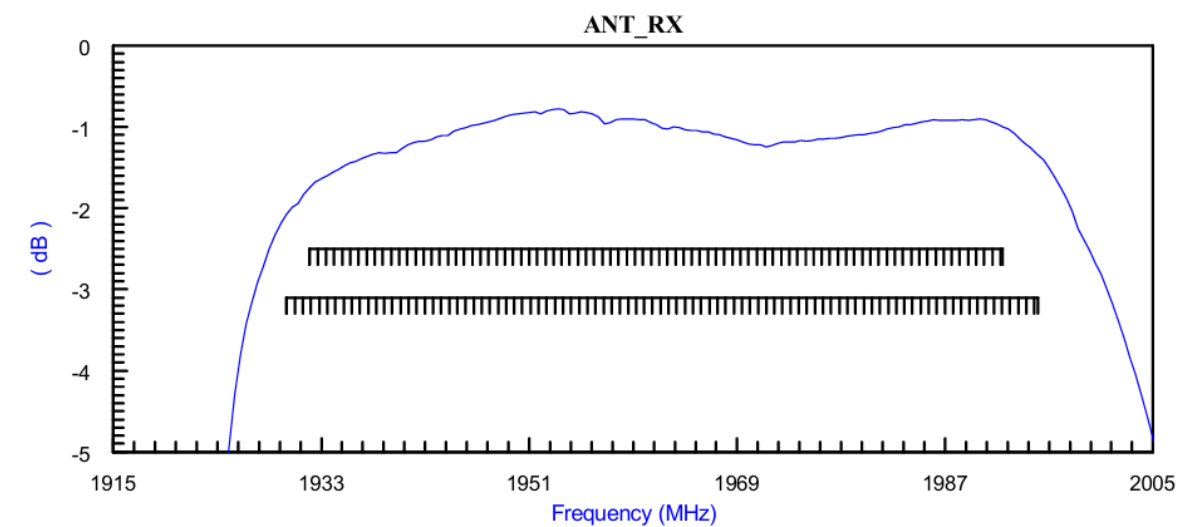
TX / RX		Characteristics			Unit	Note
		min	Typ. ¹	max		
Isolation	1852.50 ~ 1912.50 MHz	52	56		dB	
	1850.00 ~ 1915.00 MHz	50	56		dB	
	1932.50 ~ 1992.50 MHz	50	55		dB	
	1930.00 ~ 1995.00 MHz	50	55		dB	

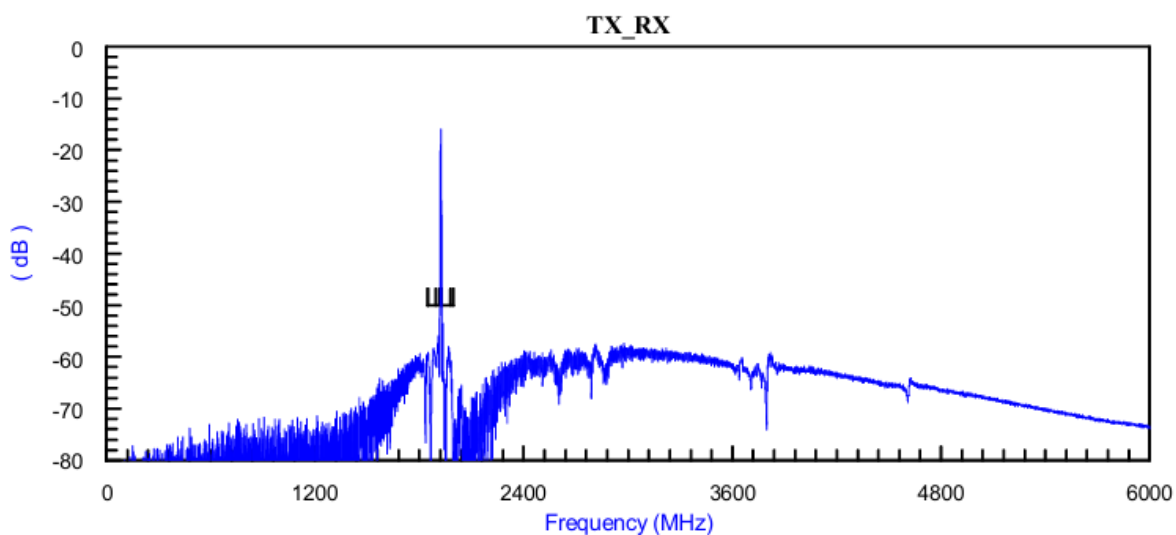
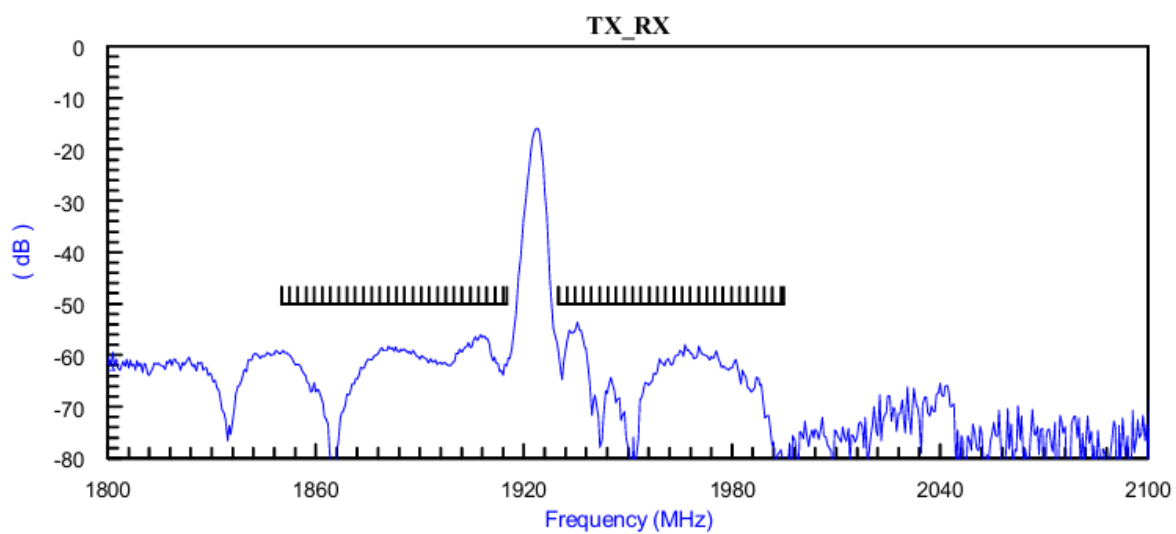
1) Typical value at 25±2deg.C

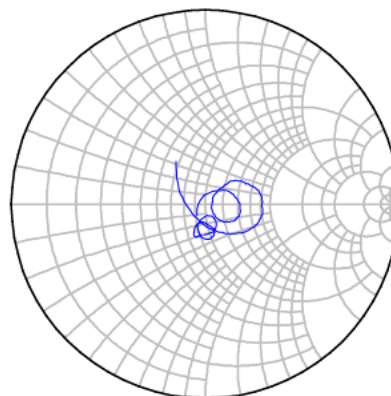
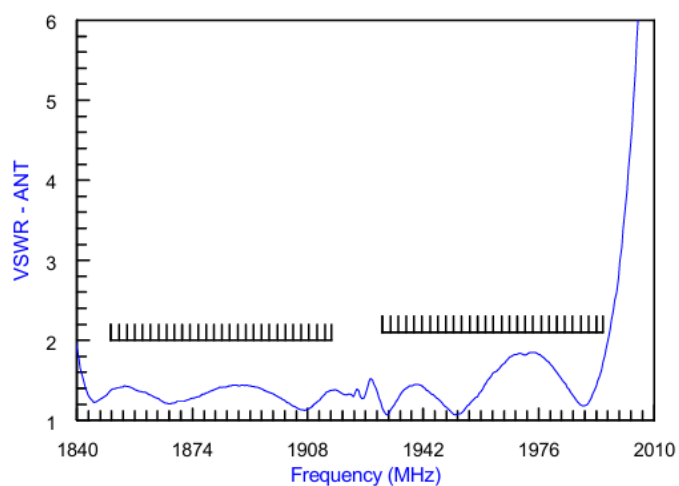
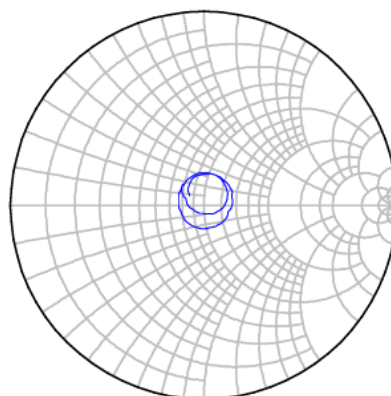
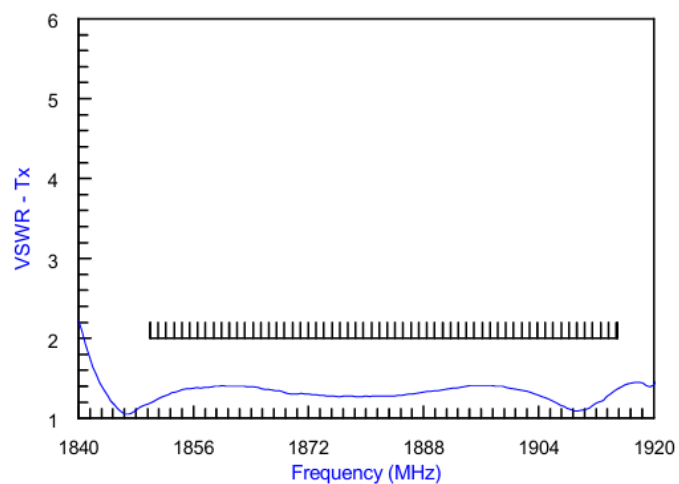
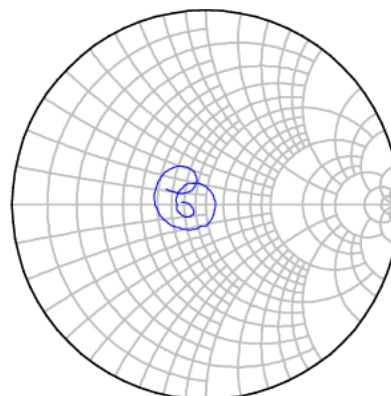
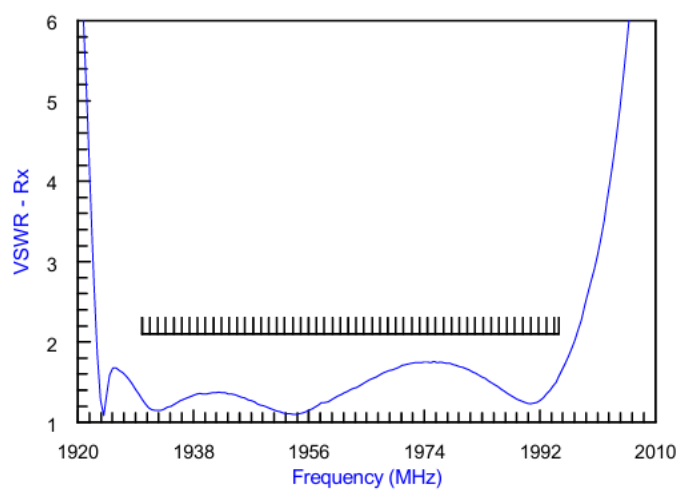
3.3 Plots

Tx - ANT



ANT – Rx

Tx – Rx

ANT – VSWR / Impedance**Tx – VSWR / Impedance****Rx – VSWR / Impedance**

4. Packing Information

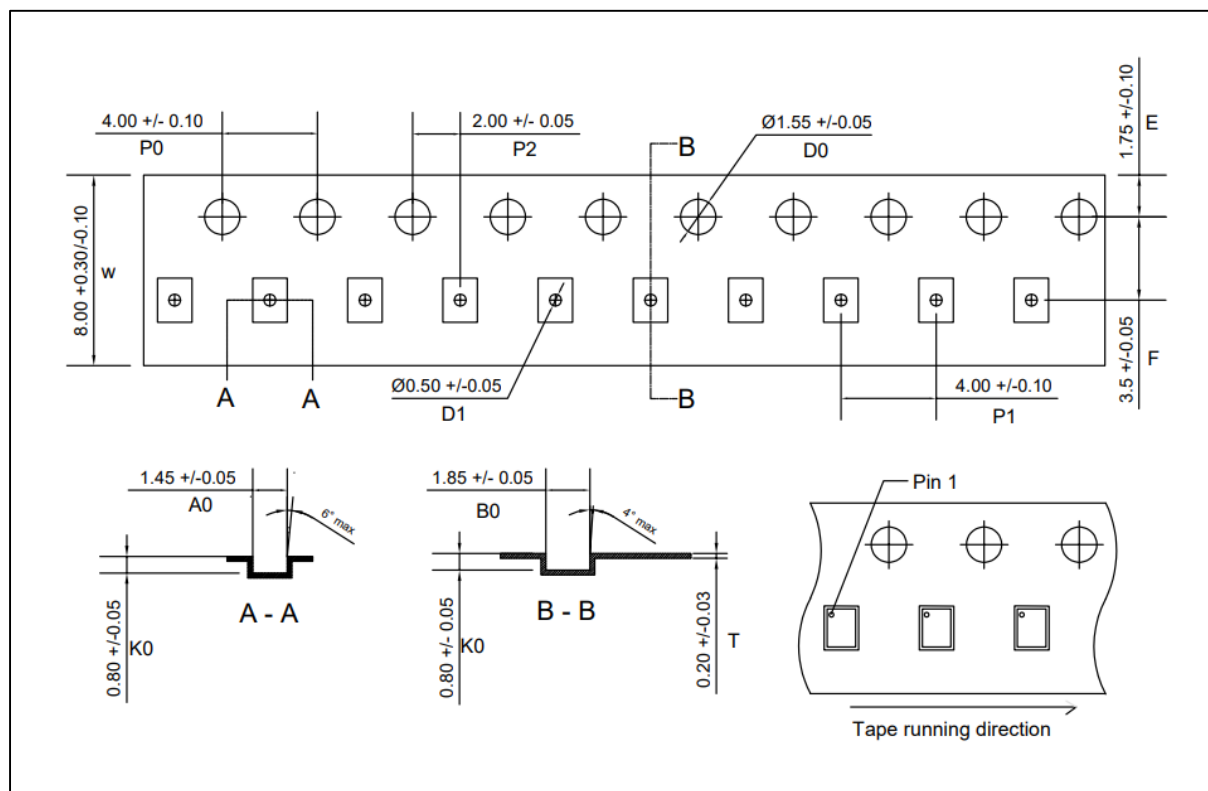


Figure 4-1 Carrier Tape Drawing (unit: mm)

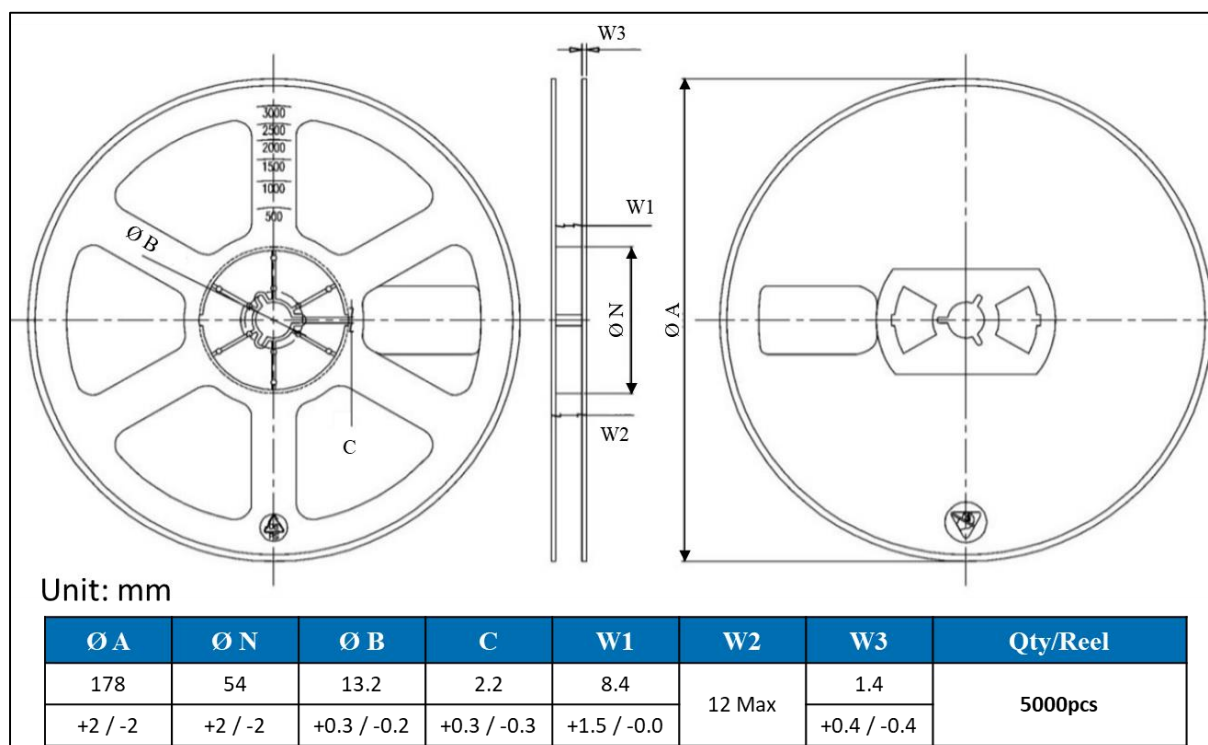


Figure 4-2 Reel Dimensions (Unit: mm) and Reeling Qty'