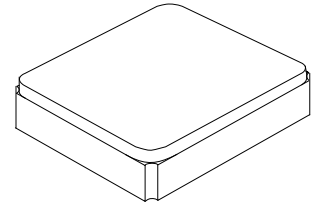


SF2764QM

**1745 / 2155 MHz
SAW Duplexer**



SM1612-4

Maximum Rating:

- Input Power Level:
 - 1) 30dBm (1710.48 - 1779.52 MHz), CW Ta=+50°C Ant,Rx Port: Loaded at 50 ohms, Input Time 5000h Max
 - 2) 28.5dBm (1710.48 - 1779.52 MHz), 5G NR 5MHz 1 RB Ant,Rx Port: Loaded at 50 ohms, Input Time 5000h Max
- DC Voltage : +/-5 V
- Operating Temperature: -30°C to +85°C
- Storage Temperature: -40°C to +100°C
- Moisture Sensitivity Level: Level 1 (**MSL 1**)
- **Band 66**

Electrical Characteristics:

Tx to Ant

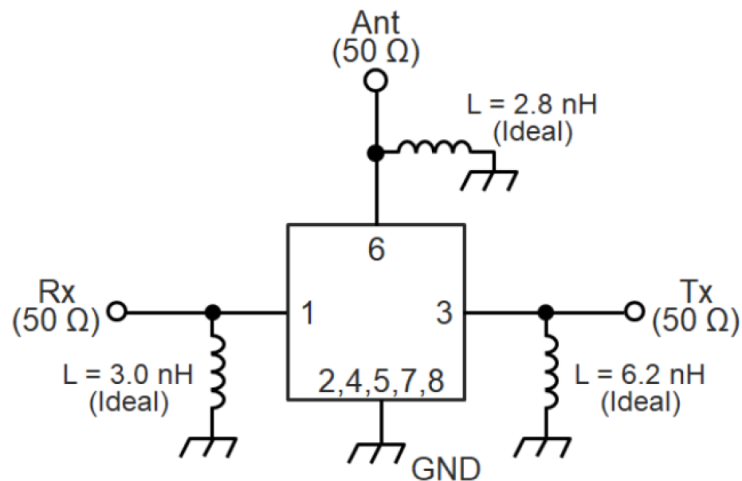
Item		Unit	Min	Typ	Max	Remarks	
Center frequency		MHz		1745			
Insertion Loss	1710.15 - 1779.85 MHz	dB		2.0	2.6		
	1710.48 - 1779.52 MHz	dB		2.0	2.5		
Amplitude Ripple		dB		1.0	1.9		
VSWR	Tx	1710.15 - 1779.85 MHz	-	1.7	2.1		
		1710.48 - 1779.52 MHz	-	1.7	2.1		
	Ant	1710.15 - 1779.85 MHz	dB		1.6	2.1	
		1710.45 - 1779.52 MHz	dB		1.6	2.1	
Attenuation	1559 - 1606 MHz		dB	38	43		
	1930 - 1995 MHz		dB	44	48		
	2110.15 - 2199.85 MHz		dB	45	49		
	2400 - 2500 MHz		dB	38	41		
	3420 - 3560 MHz		dB	30	35		
	5130 - 5340 MHz		dB	20	29		

Ant to Rx

Item		Unit	Min	Typ	Max	Remarks
Center frequency		MHz		2155		
Insertion Loss	2110.15 - 2199.85 MHz	dB		2.2	2.8	
	2110.48 - 2199.52 MHz	dB		2.2	2.8	
Amplitude Ripple		dB		0.8	1.7	
VSWR	Tx	2110.15 - 2199.85 MHz		1.6	2.2	
		2110.48 - 2199.52 MHz		1.6	2.2	
	Ant	2110.15 - 2199.85 MHz		1.6	2.2	
		2110.48 - 2199.52 MHz		1.6	2.2	
Attenuation	1710.15 - 1779.85 MHz	dB	45	55		
	1850 - 1915 MHz	dB	43	47		
	2400 - 2500 MHz	dB	33	38		
	4220 - 4400 MHz	dB	33	48		

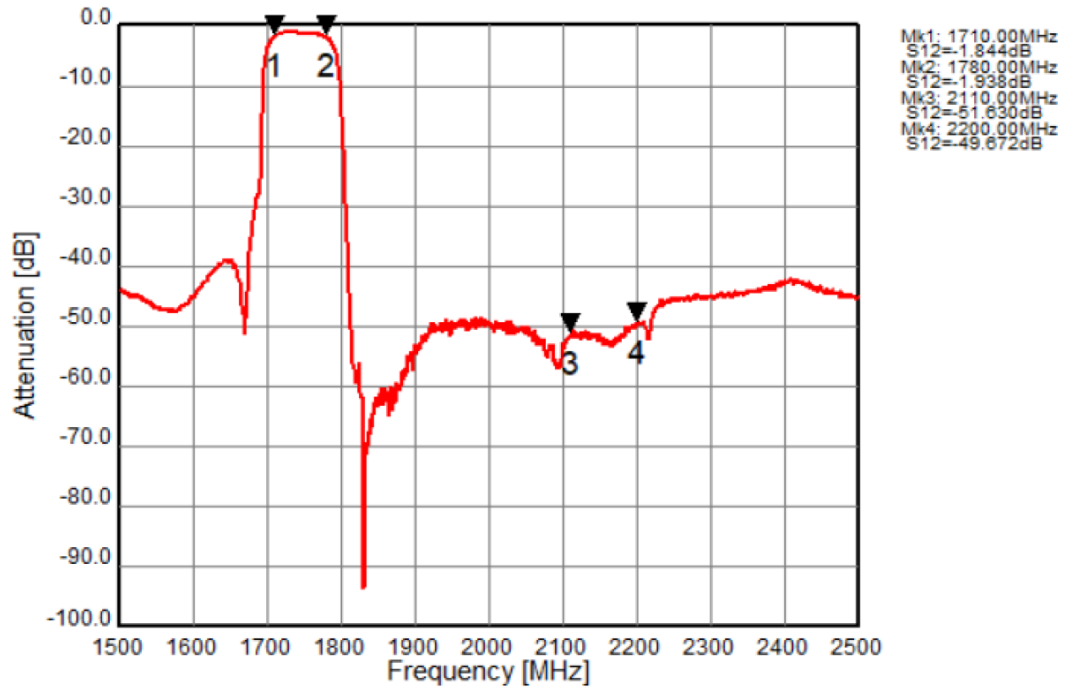
Item		Unit	Min	Typ	Max	Remarks
Tx to Rx	11710.15 - 1779.85 MHz	dB	53	57		
	2110.15 - 2199.85 MHz	dB	50	53		
Terminating Impedance	Tx port	Ω	50//6.2nH			
	Rx port	Ω	50//3.0nH			
	Ant port	Ω	50//2.8nH			

Schematic

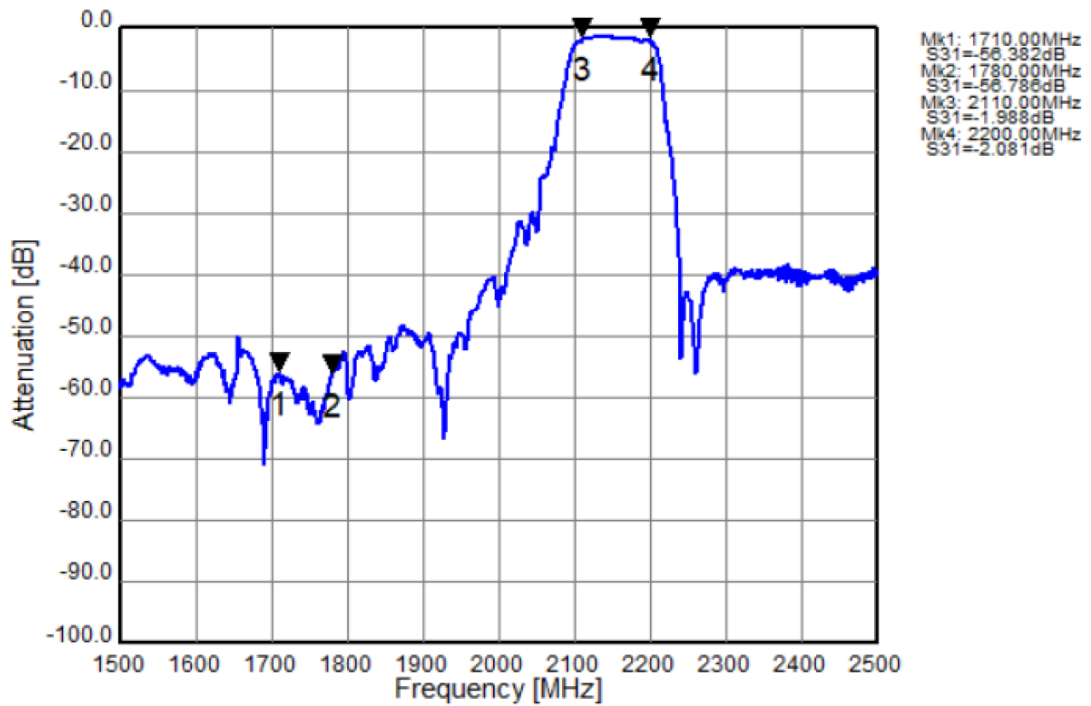


Performance Plots

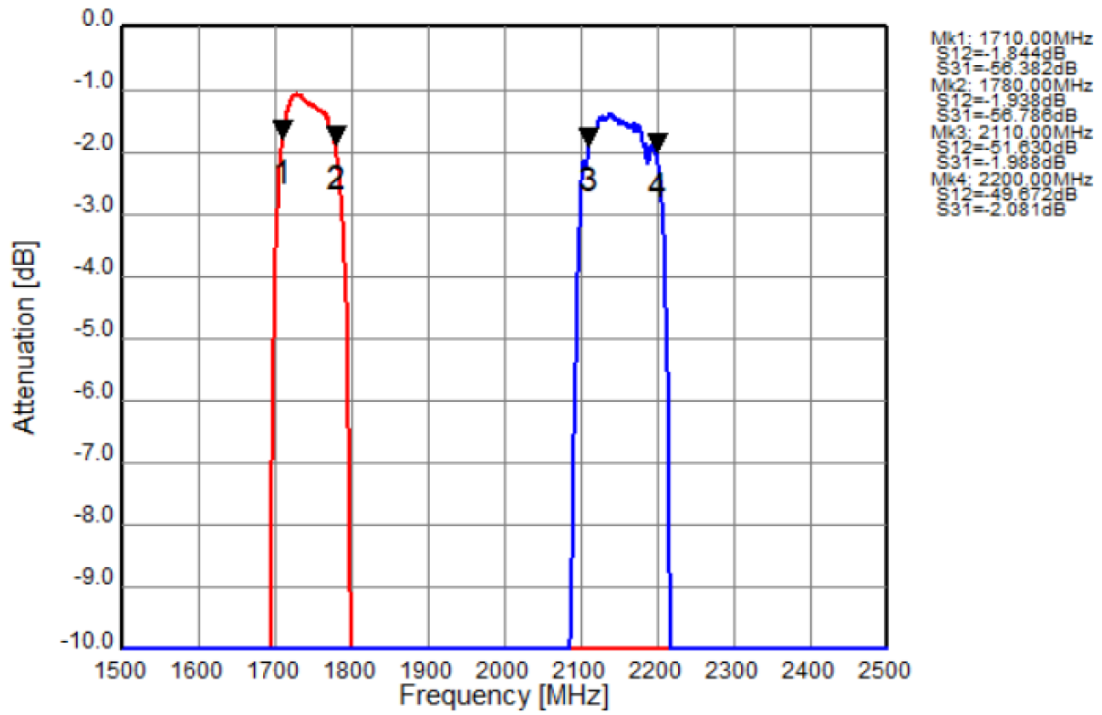
Tx to Ant



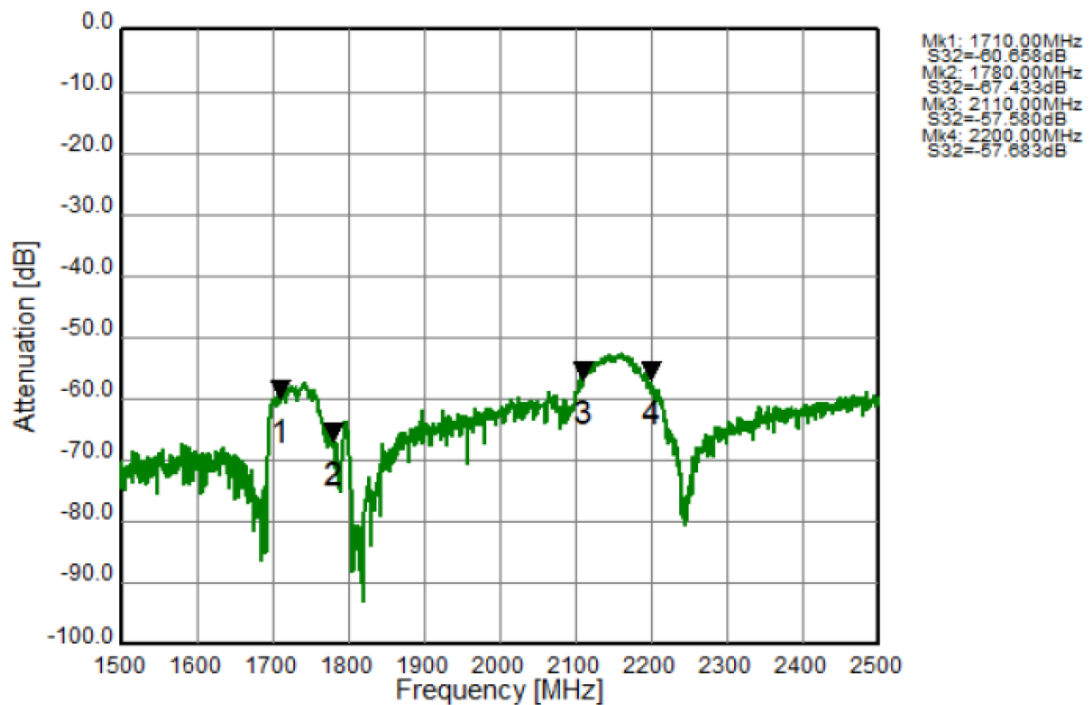
Ant to Rx



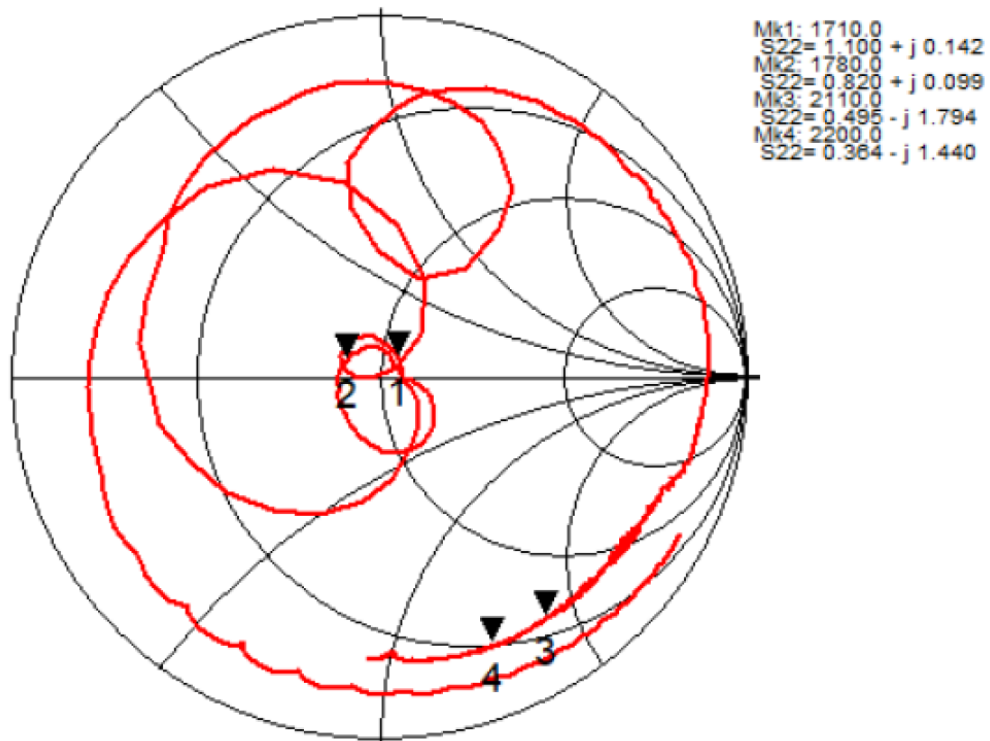
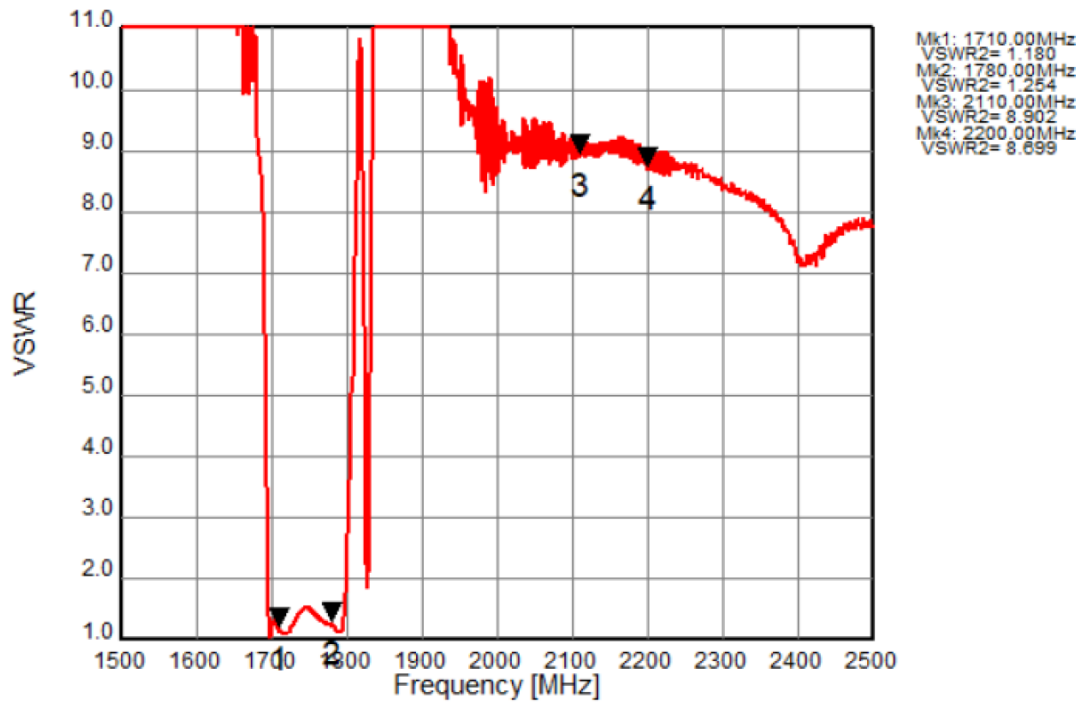
Tx to Ant, Ant to Rx



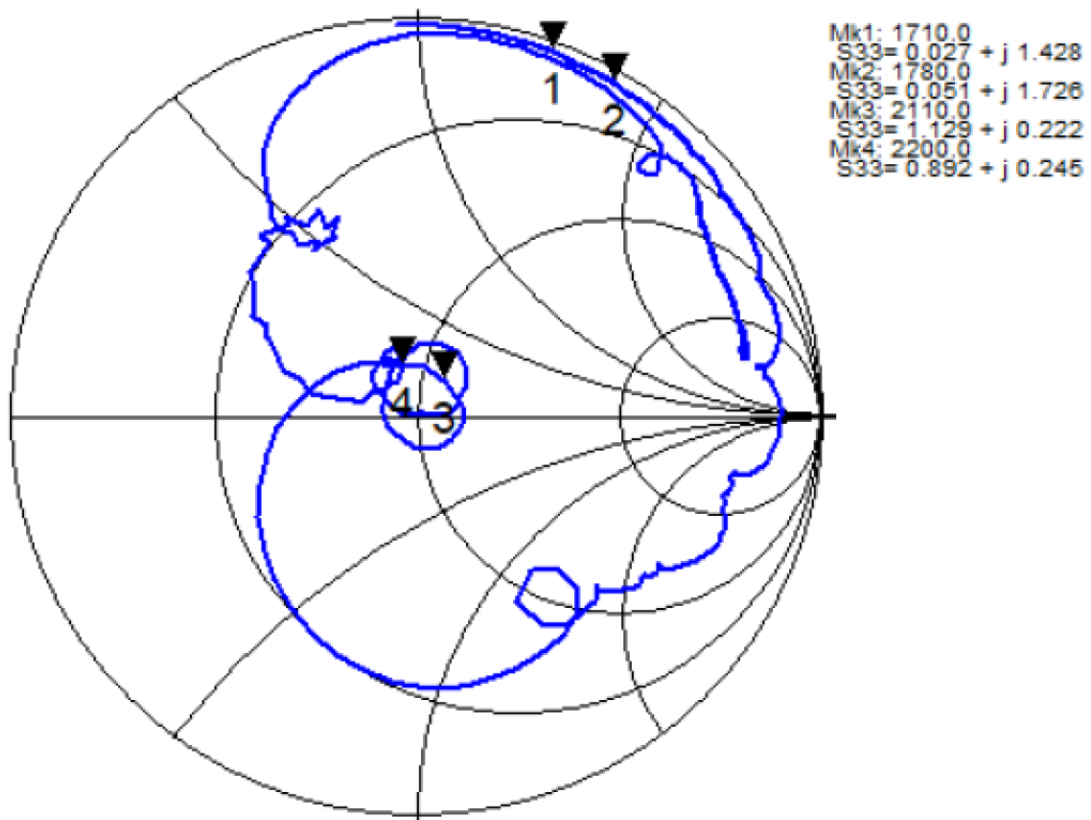
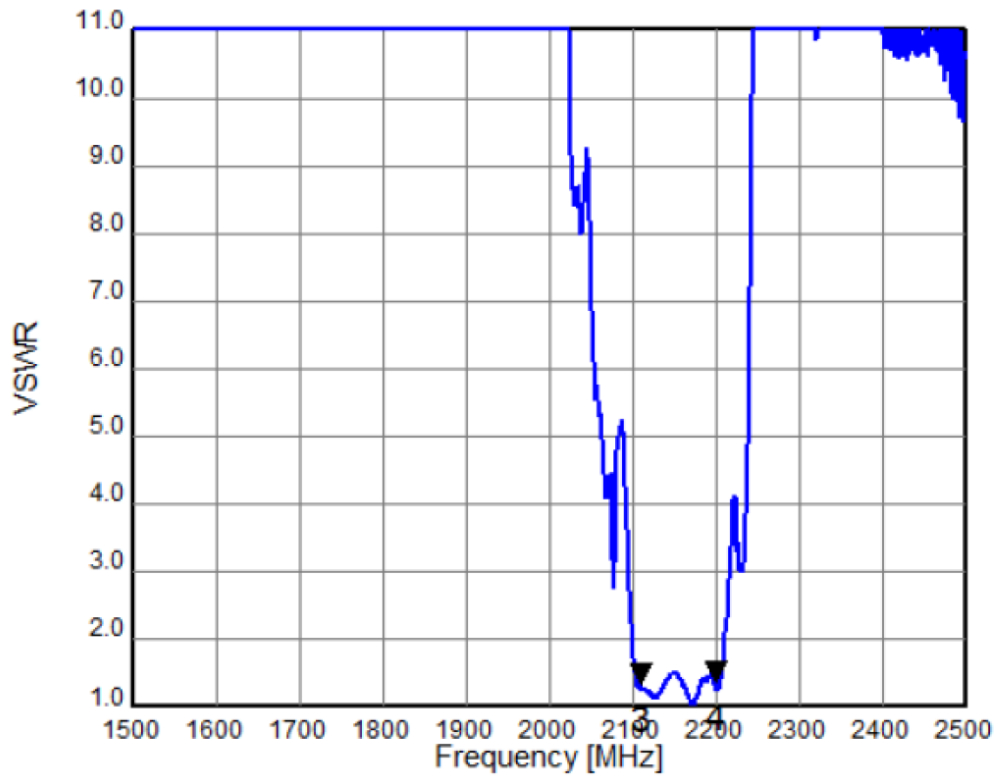
Tx to Rx Isolation



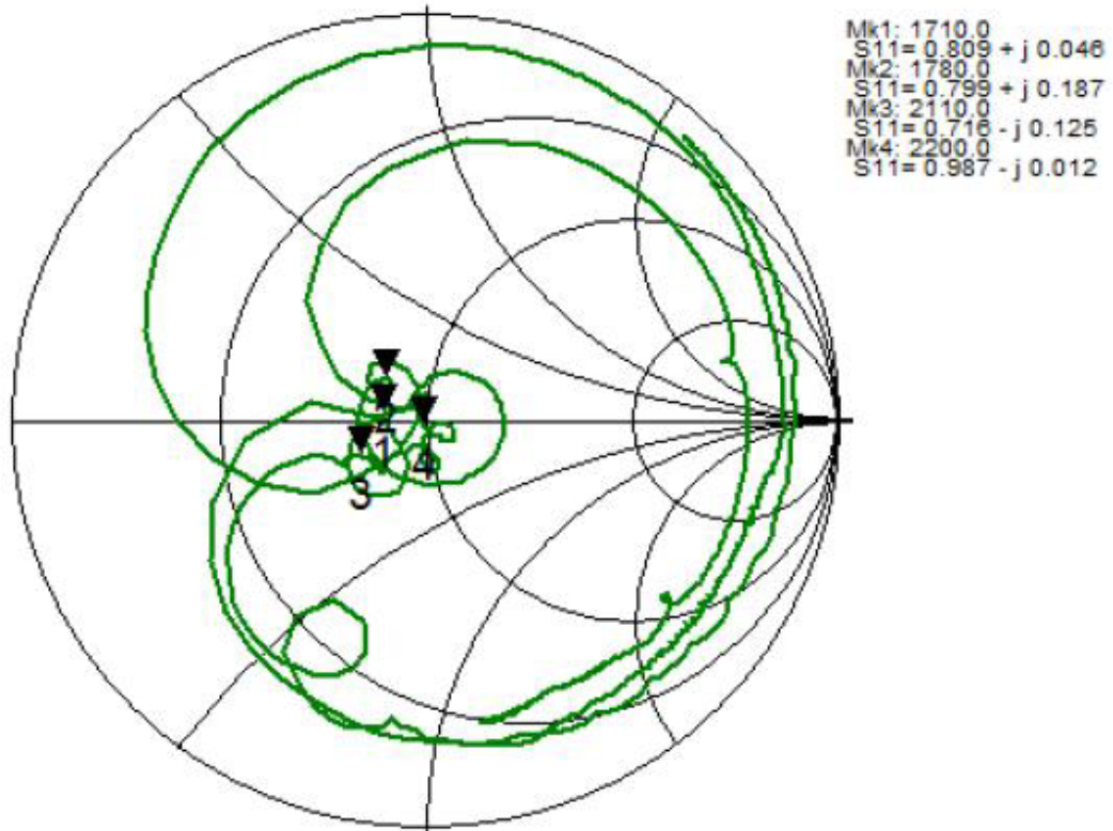
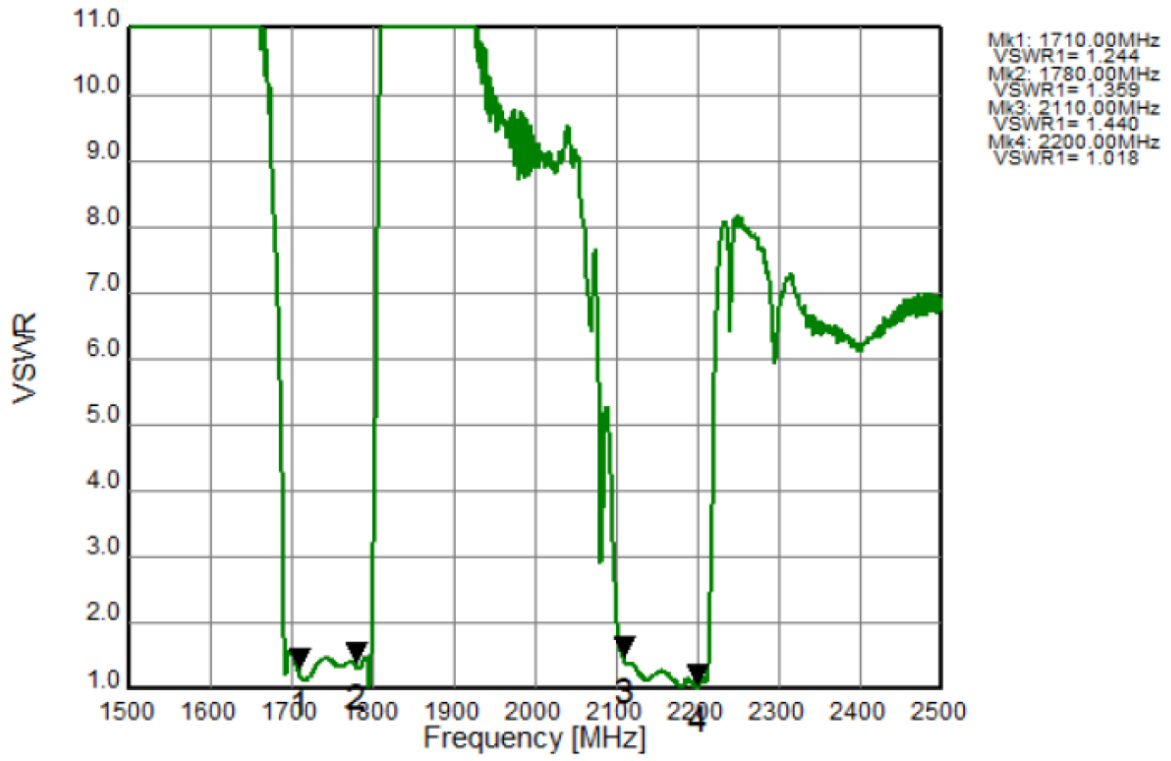
Tx Port



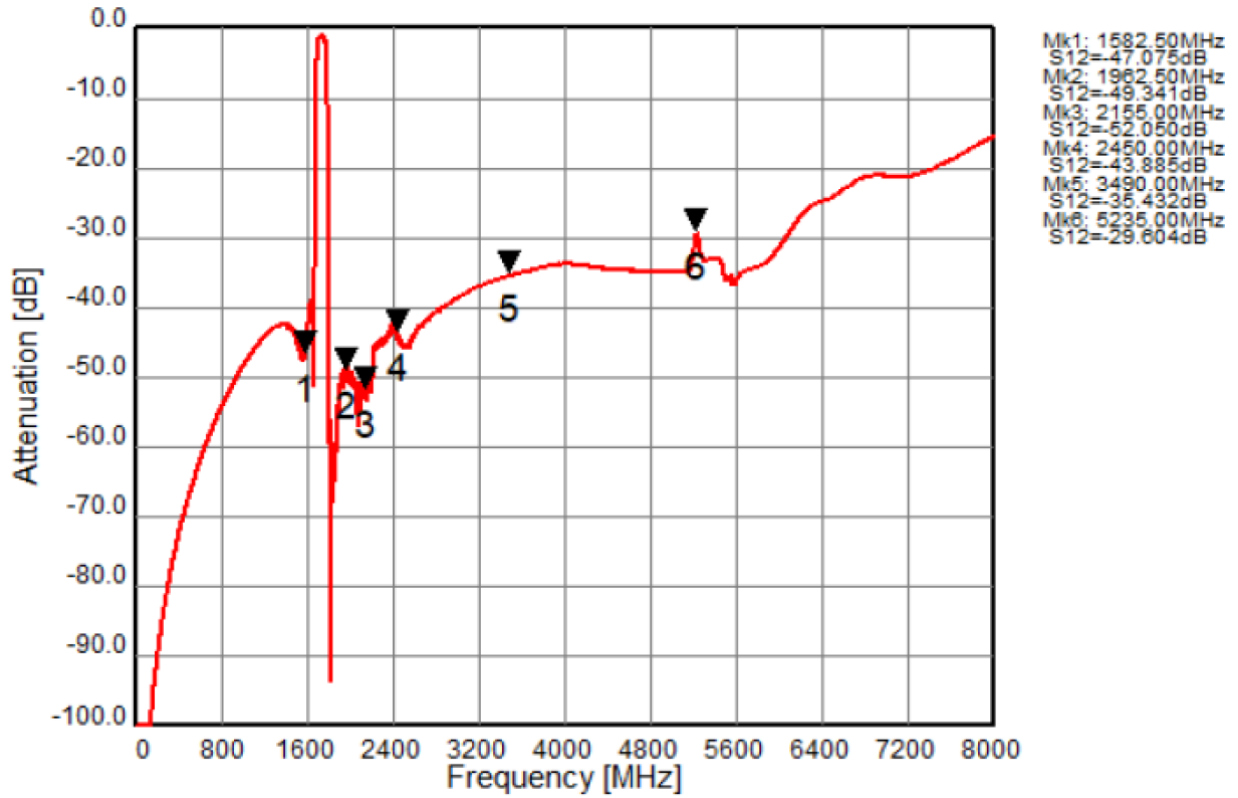
Rx Port



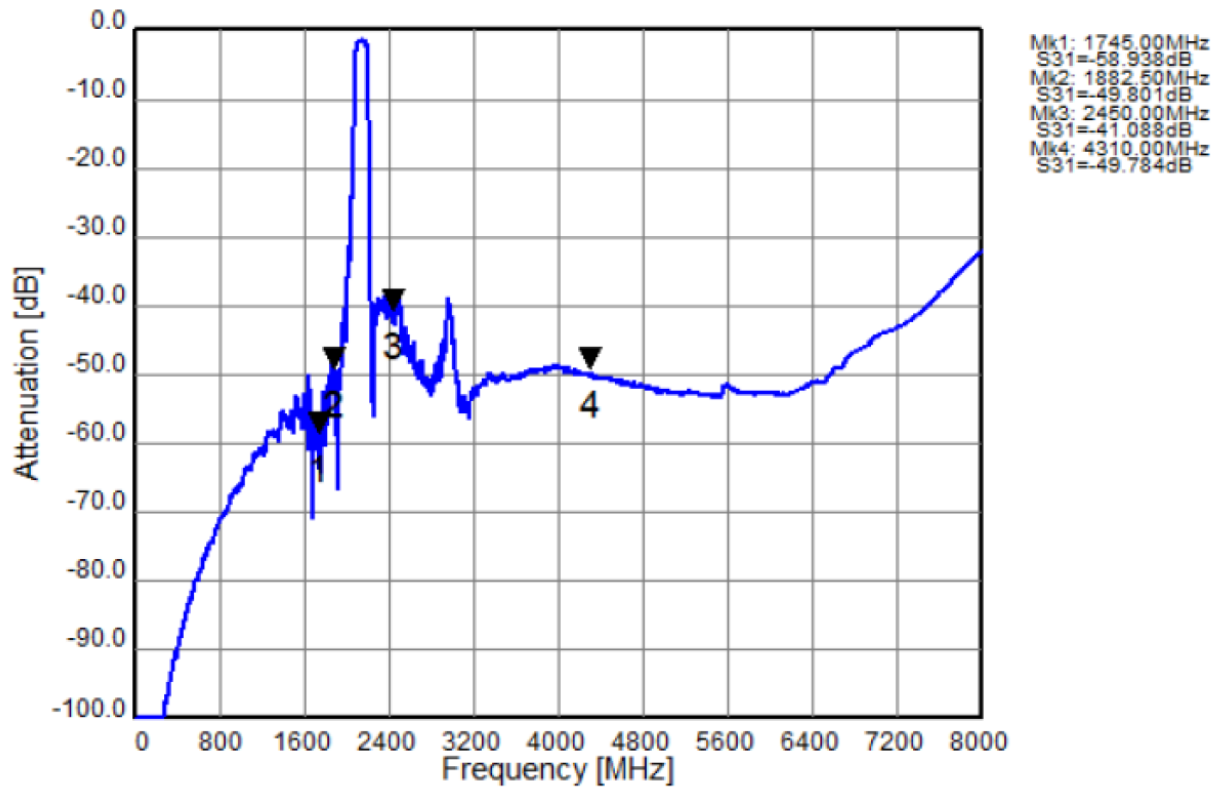
Ant Port



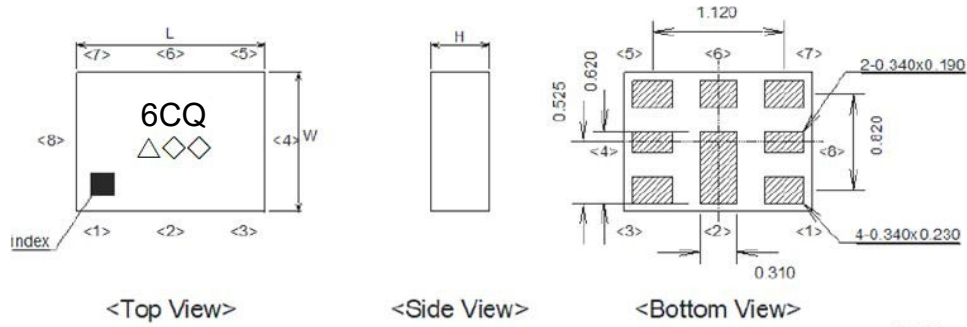
Tx to Ant (Wide Span)



Ant to Rx (Wide Span)



Package Drawing and Pin Description



Unit : mm
1 to 8 : Pin No.

Marking name: 6CQ(Part Symbol)

△: Trace Code.(2020 May → s,....., 2023 Dec → m)

◇◇: Lot Code.

Product Trace Code.Follow below table.(4-year cycle)

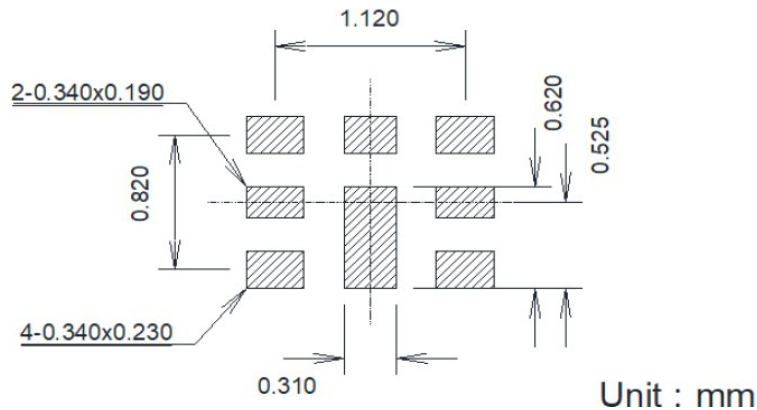
L = 1.6 +/- 0.1 mm

W = 1.2 +/- 0.1 mm

H = 0.44 mm Max

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2020	n	p	q	r	s	t	u	v	w	x	y	z
2021	A	B	C	D	E	F	G	H	J	K	L	M
2022	N	P	Q	R	S	T	U	V	W	X	Y	Z
2023	a	b	c	d	e	f	g	h	j	k	l	m

PCB Mounting Pattern

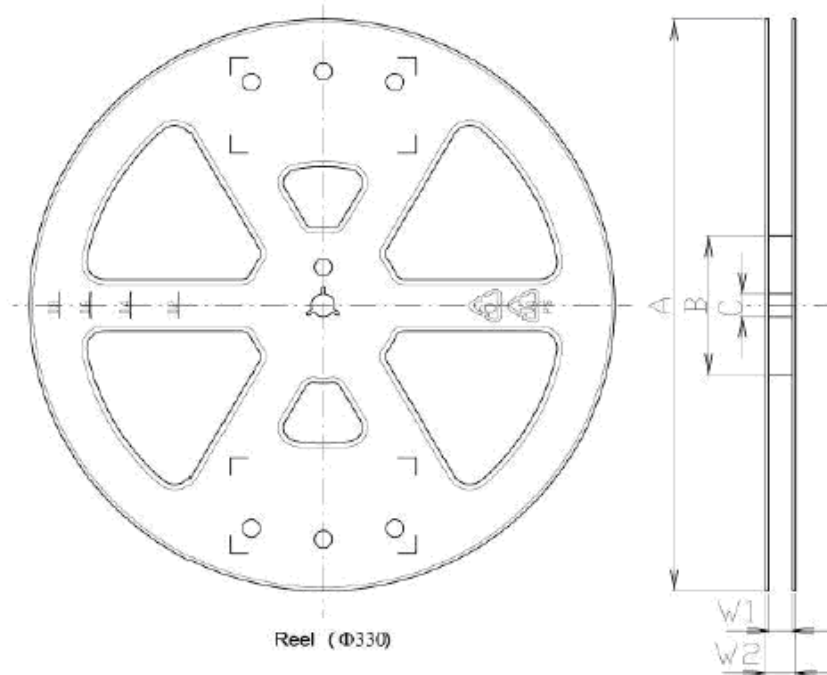


Pin No.	Symbol	Function
1	Rx	Receiver
2	GND	Ground
3	Tx	Transmitter
4	GND	Ground
5	GND	Ground
6	Ant	Antenna
7	GND	Ground
8	GND	Ground

Notes:

- All units are in mm unless otherwise stated
- General Tolerance
 - Linear: X.XXX = ±0.050mm
 - X.XX = ±0.10mm
- Terminations
 - Au: 0.10 um min.
 - Pd: 0.10 um min.
 - Ni: 2-5 um
- Pin 1 indicated by 0.100 mm Chamfer

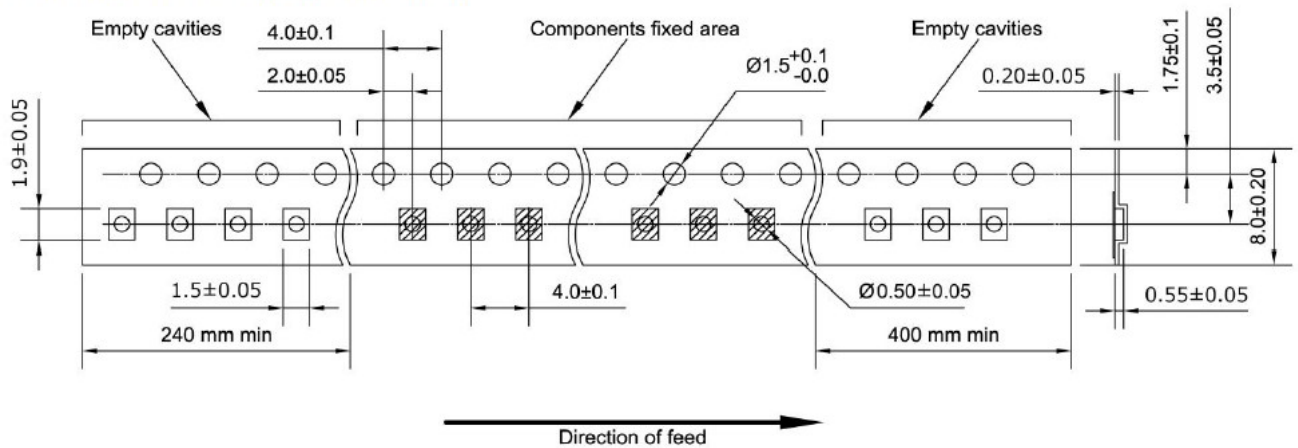
Reel Dimension



Order	Code	Quantity (pcs./reel)	A	B	C	W1	W2	Tape Pitch
Standard	Y	15,000	φ330	φ100	φ13 ±0.2	9.4 ±1.0	13.4 ±1.0	4.0 ±0.1
Option	Z	3,000	φ180	φ60	φ13 ±0.2	9 +1.0/-0.0	11.4 ±1.0	4.0 ±0.1

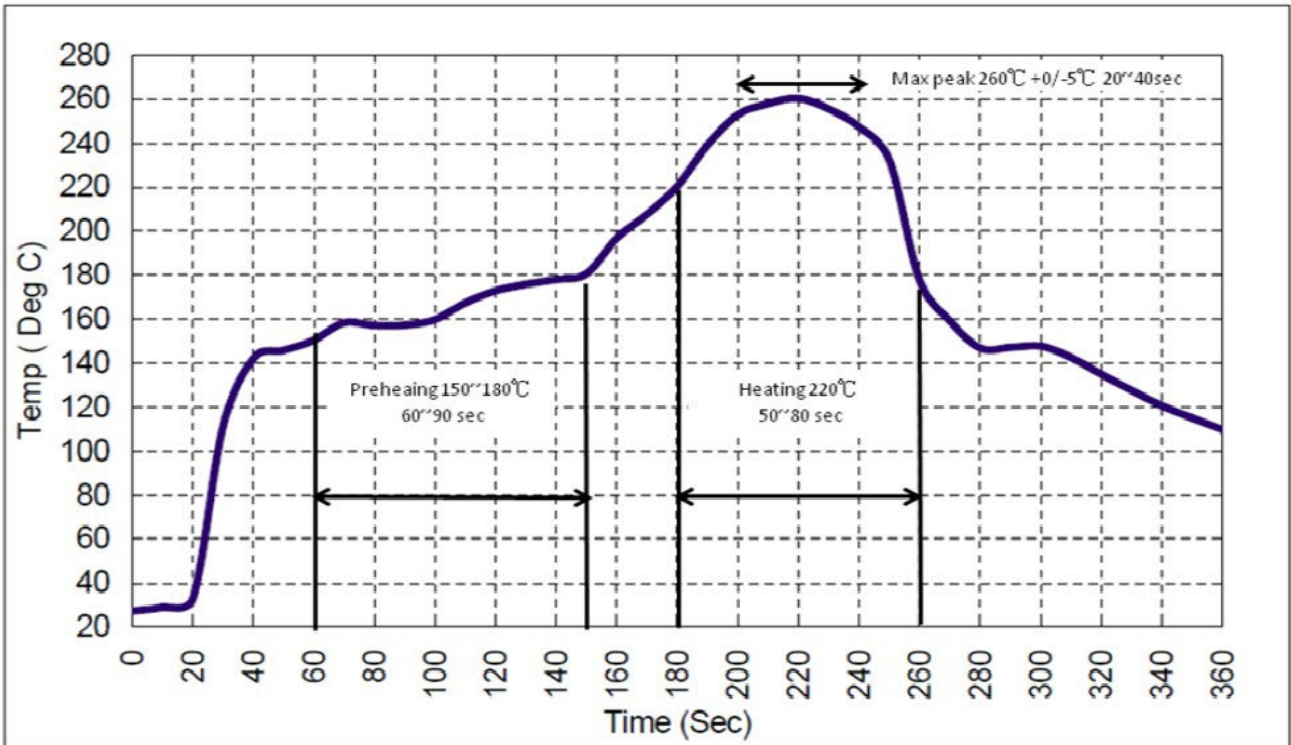
Unit:mm

Dimensions of Tape (Standard)



Recommended Solder Profile

1. Preheating shall be fixed at 150~180°C for 60~90 seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for 50~80 seconds and at 260°C +0/-5°C peak (20~40sec).
4. Time: 2 times.



CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. This component was always RoHS compliant from the first date of manufacture.