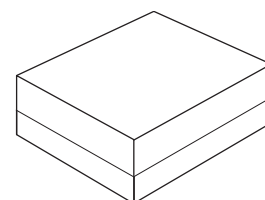


SF2756J

**1231.5/1568 MHz
SAW Dual Filter**



SM1511-6

MAXIMUM RATING:

- Input Power Level: 25 dBm
- DC Voltage : 5 V
- Operating Temperature: -40°C to +105°
- C Storage Temperature: -40°C to +105°
- C ESD Machine Mode : 50V
- ESD Human Body Mode : 100V
- Sensitive Level (MSL): Level 1
- AEC-Q200 Qualified

ELECTRICAL CHARACTERISTICS:

Temperature range for specification : $T_{spec} = -40^{\circ}\text{C}$ to $+85^{\circ}\text{C}$

Terminating source impedance : $Z_s = 50 \parallel 3.6\text{nH}$

Terminating load impedance : $Z_L = 50 \parallel 2.7\text{nH}$

Item		Unit	Min	Typ	Max	Note
GPS L2/L5/L6 band						
Center Frequency		MHz		1231.5		
Insertion Loss	1164.45 - 1188.45 MHz	dB		1.5	2.6	IRNSS L5
	1196.91 - 1217.37 MHz	dB		1.0	1.7	B2b/E5b
	1217.37 - 1237.83 MHz	dB		1.0	1.7	L2-P
	1237.83 - 1299 MHz	dB		1.6	2.6	L6
Ripple (1164 - 1299 MHz)		dB		0.8	2.0	L5L2L6
VSWR In/Out (1164 - 1299 MHz)				1.7	2.0	L5L2L6
Group Delay Ripple	1164.45 - 1188.45 MHz	dB		2.9	3.5	IRNSS L5
	1196.91 - 1217.37 MHz	dB		0.7	1.5	B2b/E5b
	1217.37 - 1237.83 MHz	dB		1.7	2.3	L2-P
	1237.83 - 1299 MHz	dB		30	36	L6

Item		Unit	Min	Typ	Max	Note
GPS L1 band						
Center Frequency		MHz		1542		
Insertion Loss	1525 - 1559 MHz	dB		1.4	2.2	L
	1559.052 - 1563.144 MHz	dB		1.3	2.1	B1
	1565.19 - 1585.65 MHz	dB		1.1	2.0	L1
	1592.953 - 1610.485 MHz	dB		1.3	2.2	G1
Ripple (1525 - 1610.485 MHz)		dB		0.7	2.0	
VSWR In/Out (1525 - 1610.485 MHz)				1.5	2.0	
Group Delay Ripple	1525 - 1559 MHz	dB		10	16	L
	1559.052 - 1563.144 MHz	dB		3.0	7.0	B1
	1565.19 - 1585.65 MHz	dB		2.0	5.0	L1
	1592.953 - 1610.485 MHz	dB		6.0	10	G1

L5L2(L6)/L1 Attenuation (Reference level from 0 dB)		Min	Typ	Max
100 – 885 MHz	dB	30	44	
885 - 1100 MHz	dB	25	32	
1100 - 1125 MHz	dB	15	26	
1325 - 1462.9 MHz	dB	27	30	
1660 - 1680 MHz	dB	15	21	
1680 - 2400 MHz	dB	15	27	
2400 - 2700 MHz	dB	30	30	
2700 – 3300 MHz	dB	20	31	
3300 - 4200 MHz	dB	25	29	
4200 - 5000 MHz	dB	28	30	
5000 - 5925 MHz	dB	25	30	
5925 - 7125 MHz	dB	15	23	

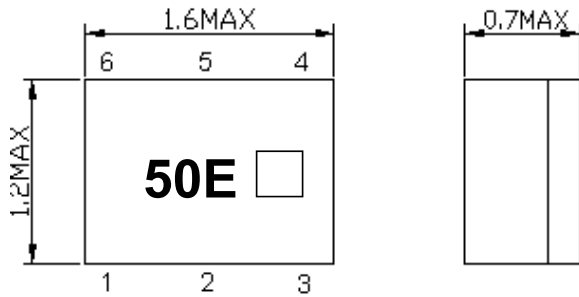


CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.

NOTES:

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

OUTLINE DRAWING:

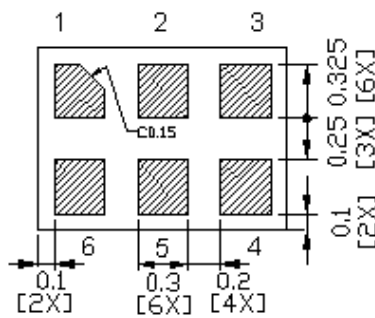


All tolerances are ± 0.05 mm unless otherwise specified

Coplanarity : 0.1 mm max.

1 to 6 : Pin No.

Unit : mm

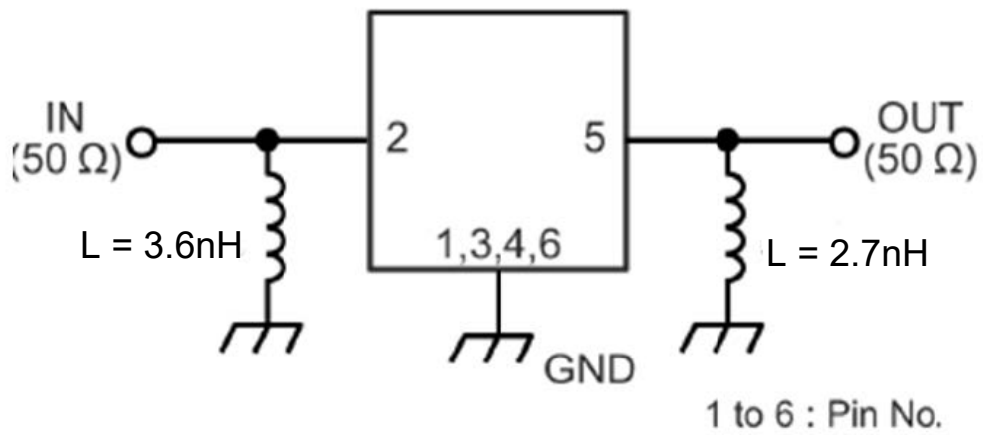


Pin No.	Symbol	Function
1	GND	Ground
2	IN	Input
3	GND	Ground
4	GND	Ground
5	OUT	Output
6	GND	Ground

☐ : Year/Month Code (Follow the table)

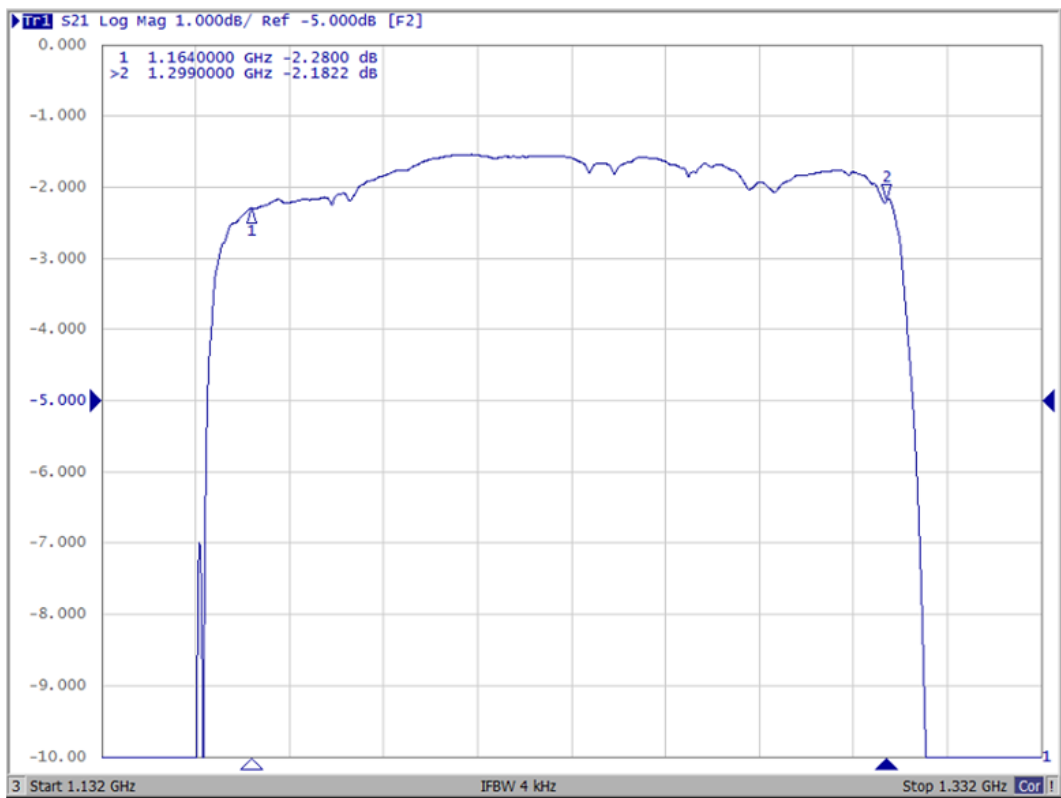
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021/ 2025/ 2029	A	B	C	D	E	F	G	H	J	K	L	M
2022/ 2026/ 2030	N	P	Q	R	S	T	U	V	W	X	Y	Z
2023/ 2027/ 2031	a	b	c	d	e	f	g	h	j	k	l	m
2024/ 2028/ 2032	n	p	q	r	s	t	u	v	w	x	y	z

Measurement Circuit:

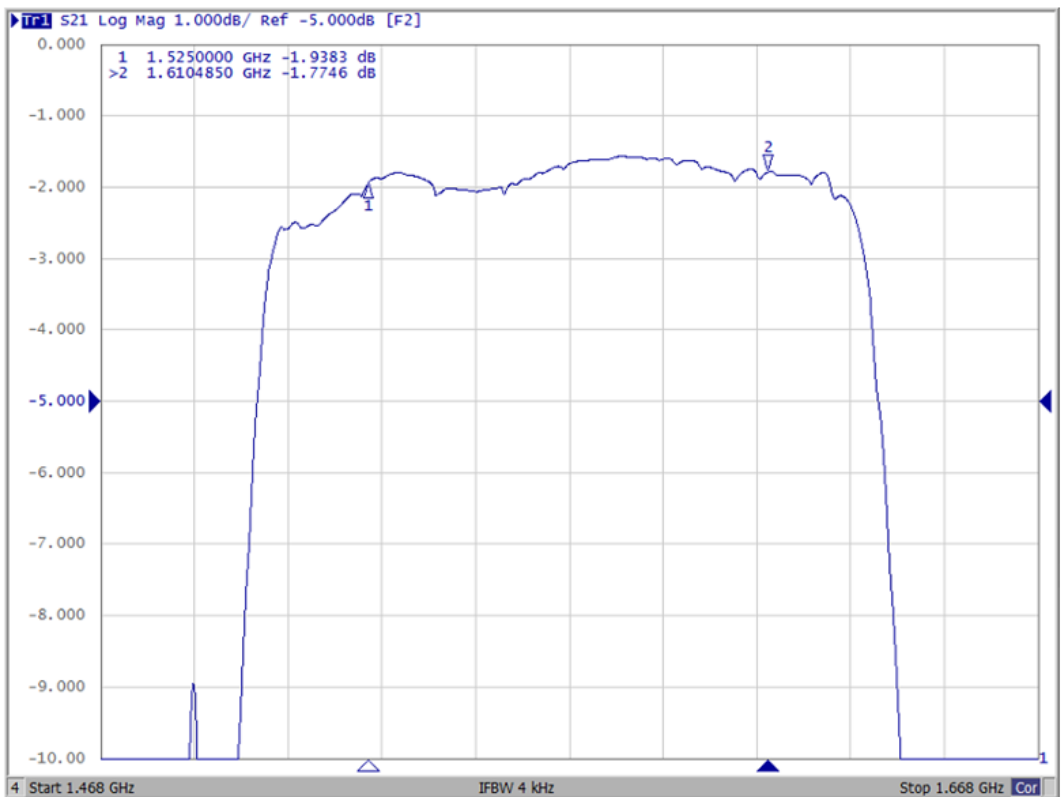


Frequency Characteristics:

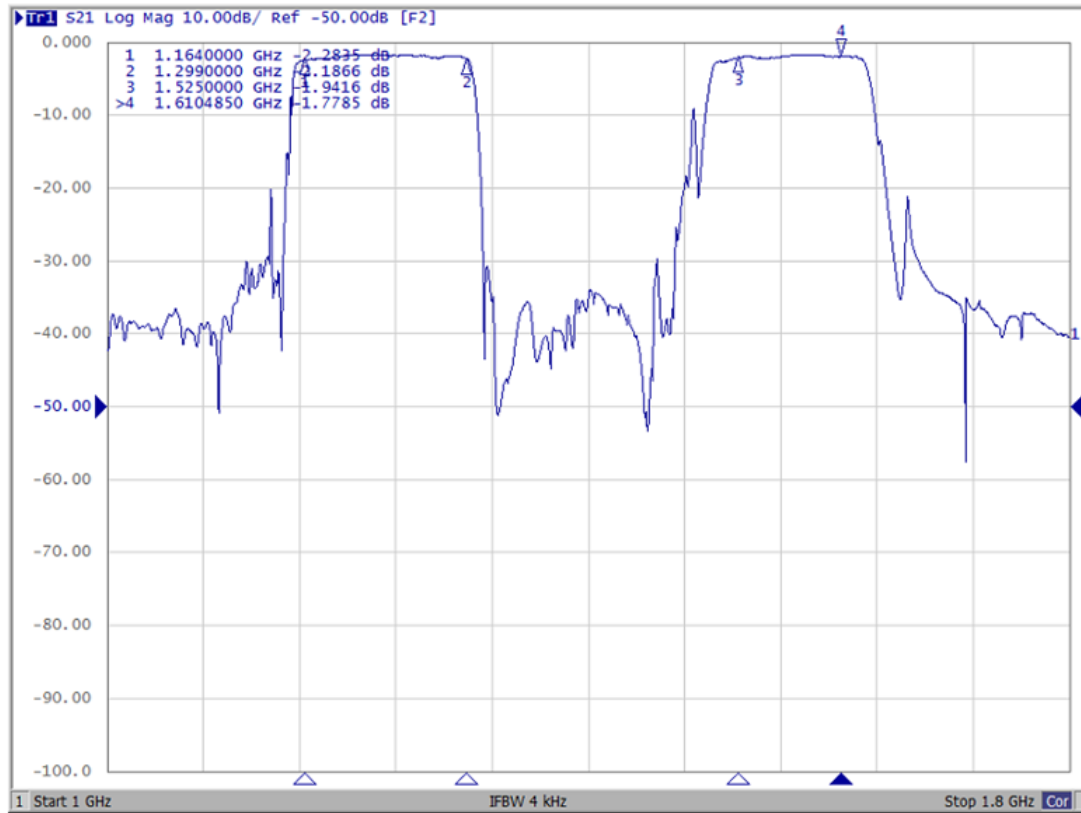
L2 + L5 + L6 Pass Band



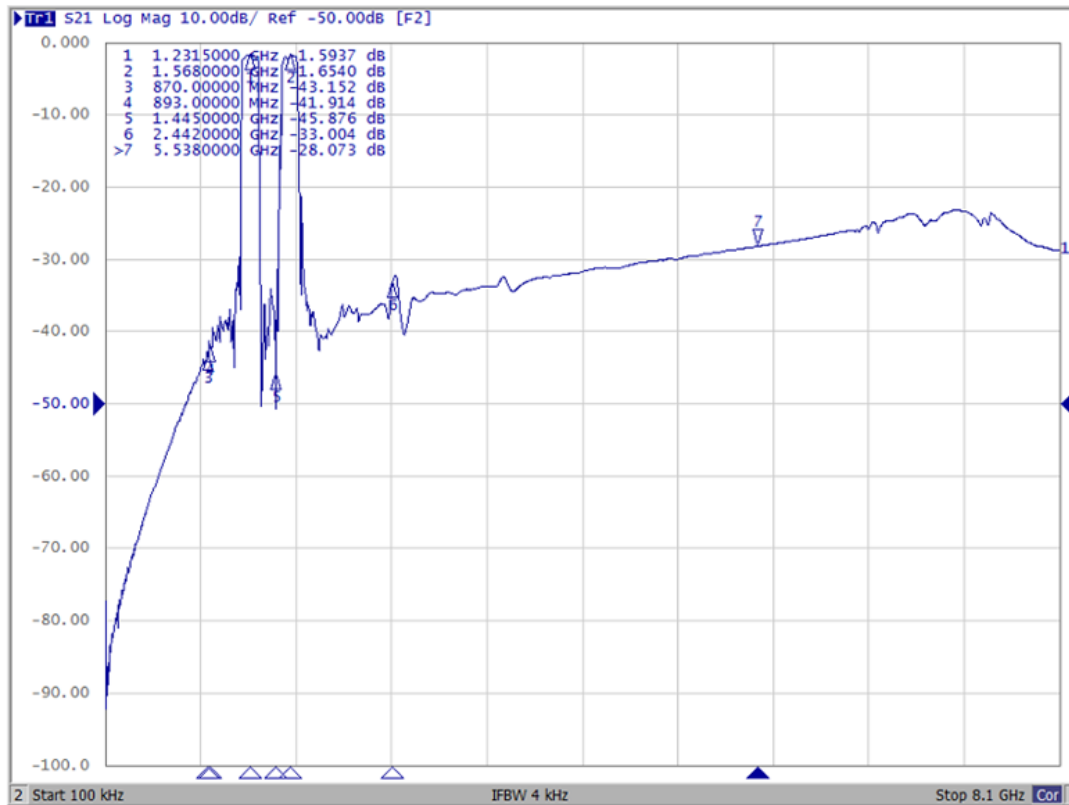
L1 Pass Band



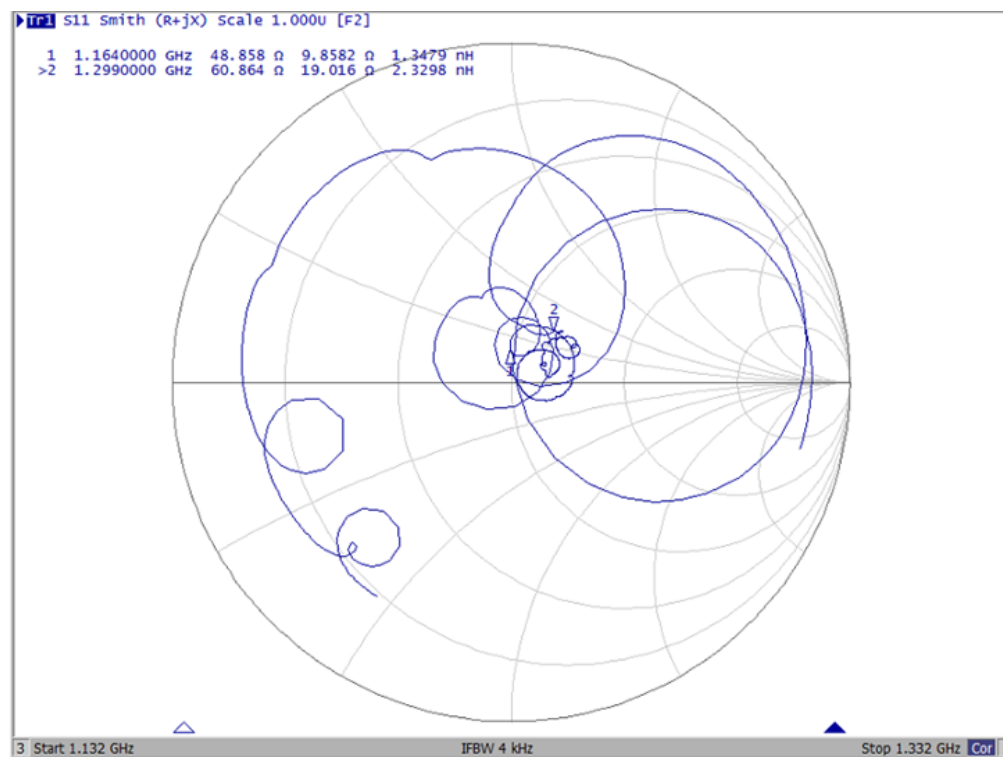
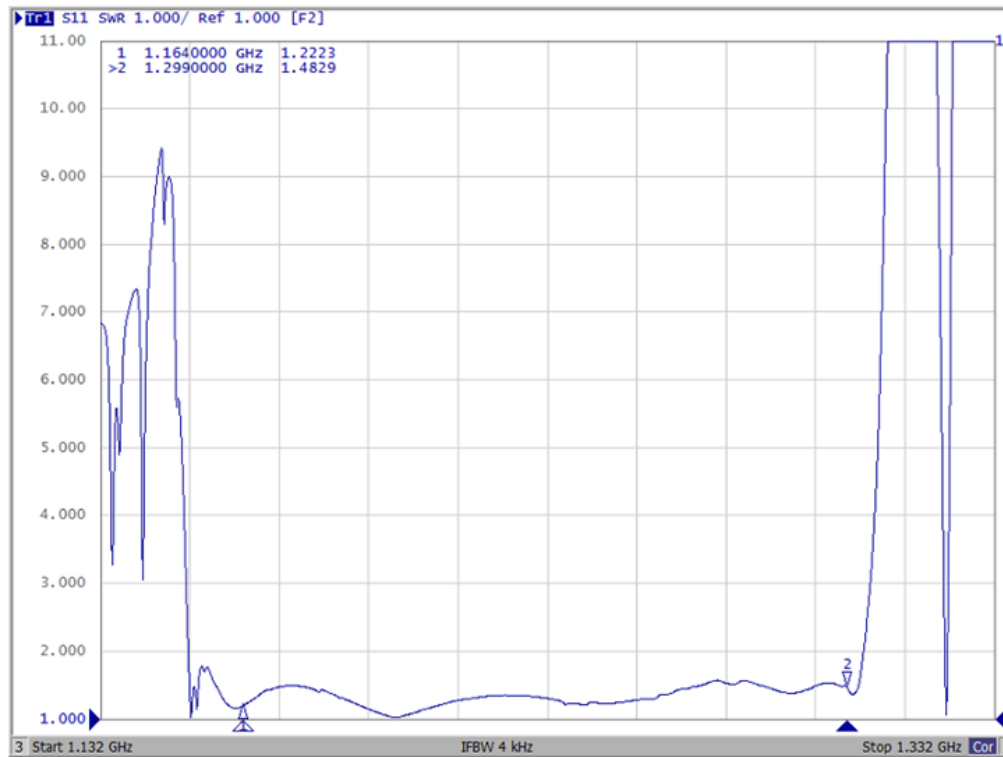
L5L2L6 / L1 Passband:



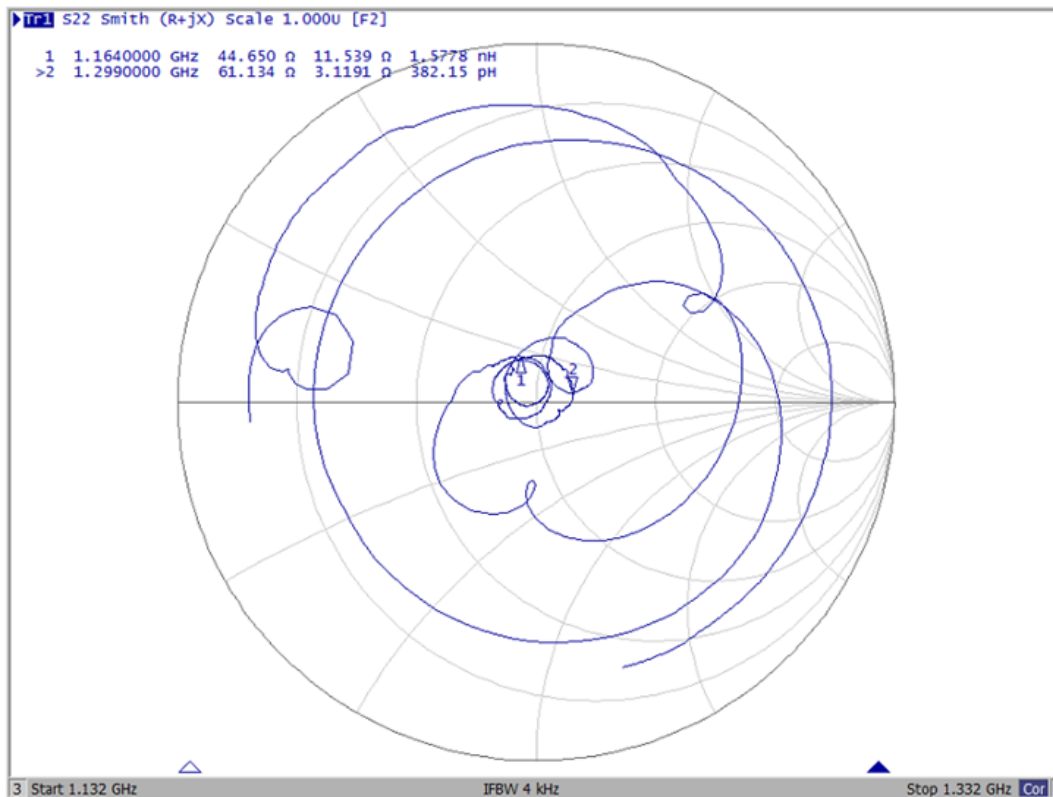
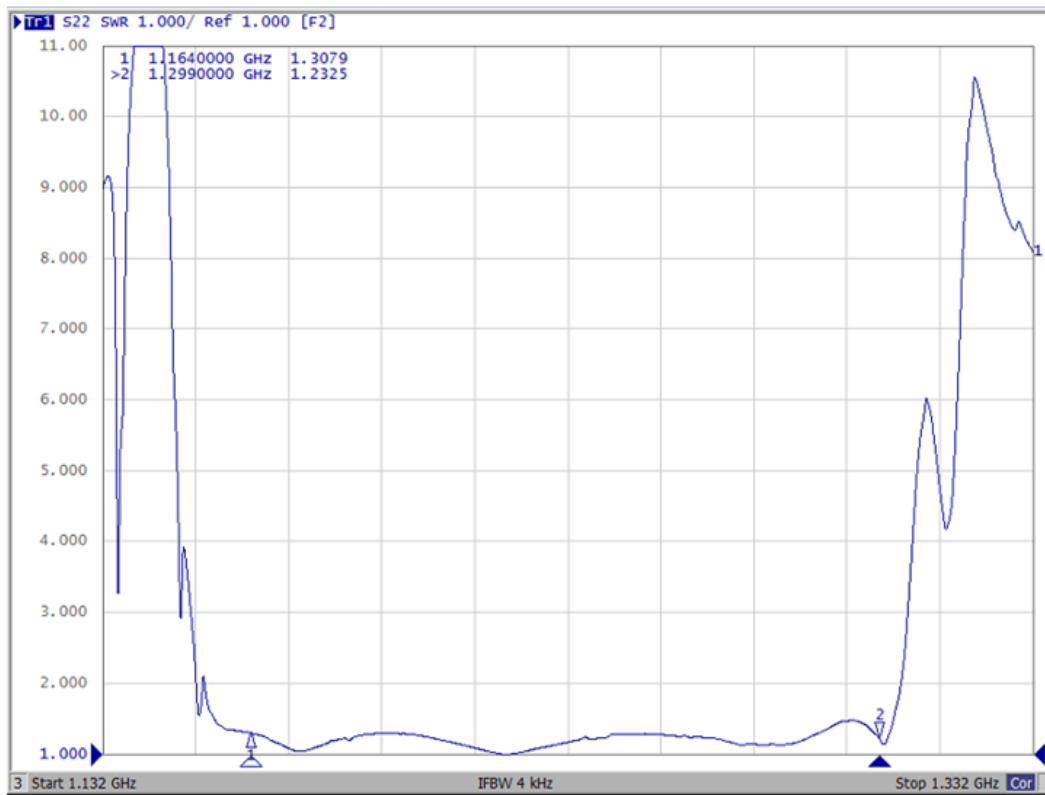
L5L2L6 / L1 Wide Band:



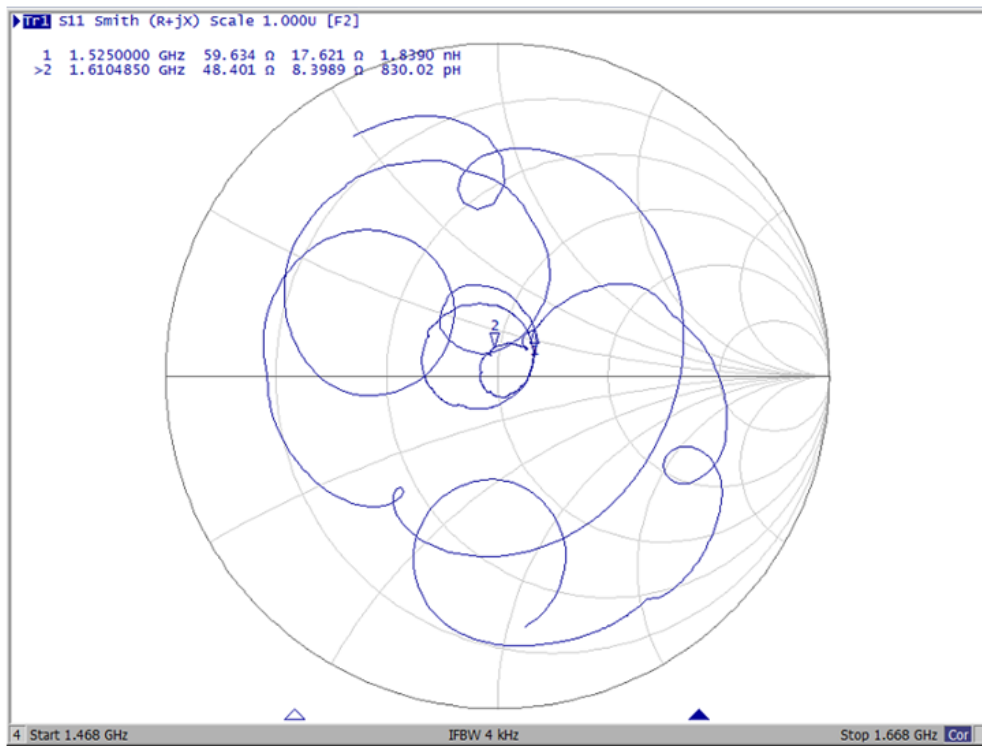
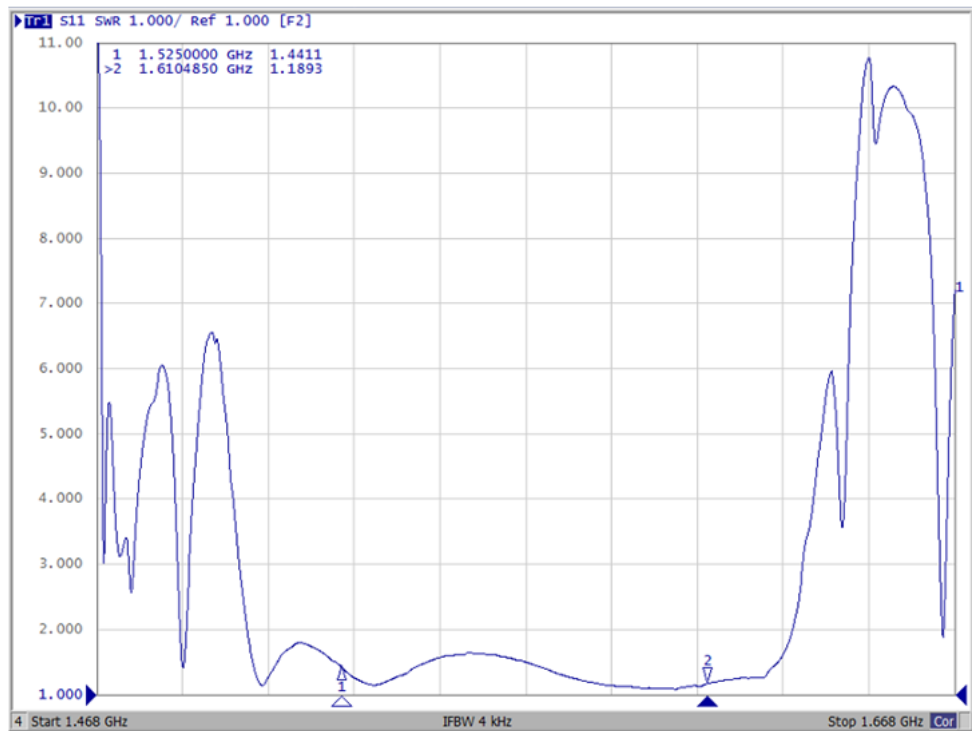
L5L2L6 Input VSWR:



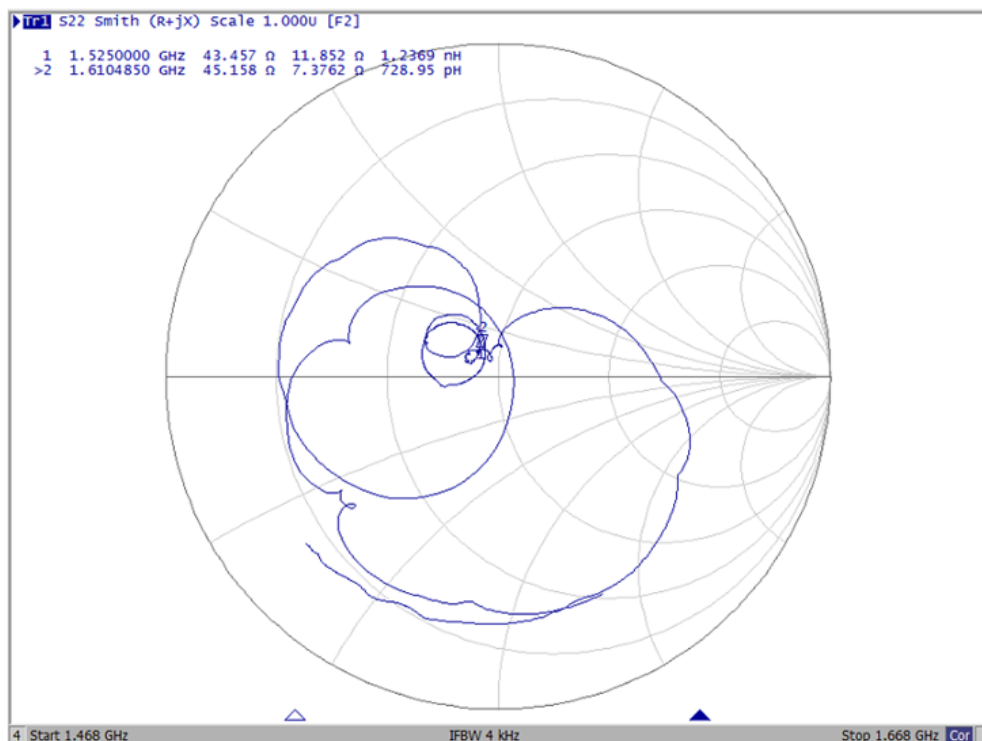
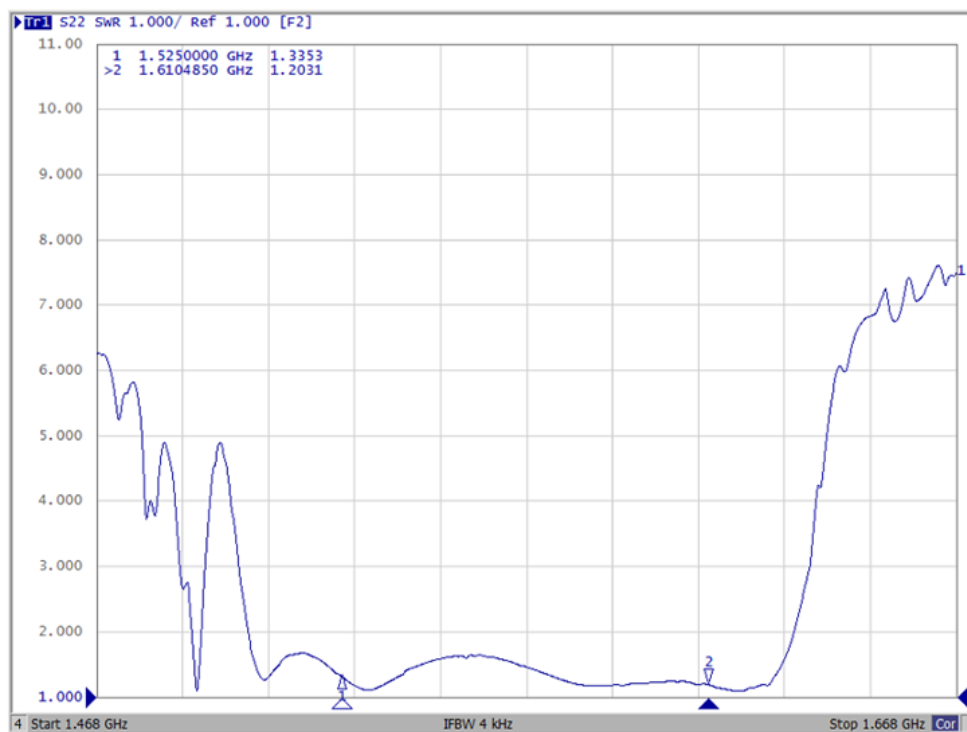
L5L2L6 Output VSWR:



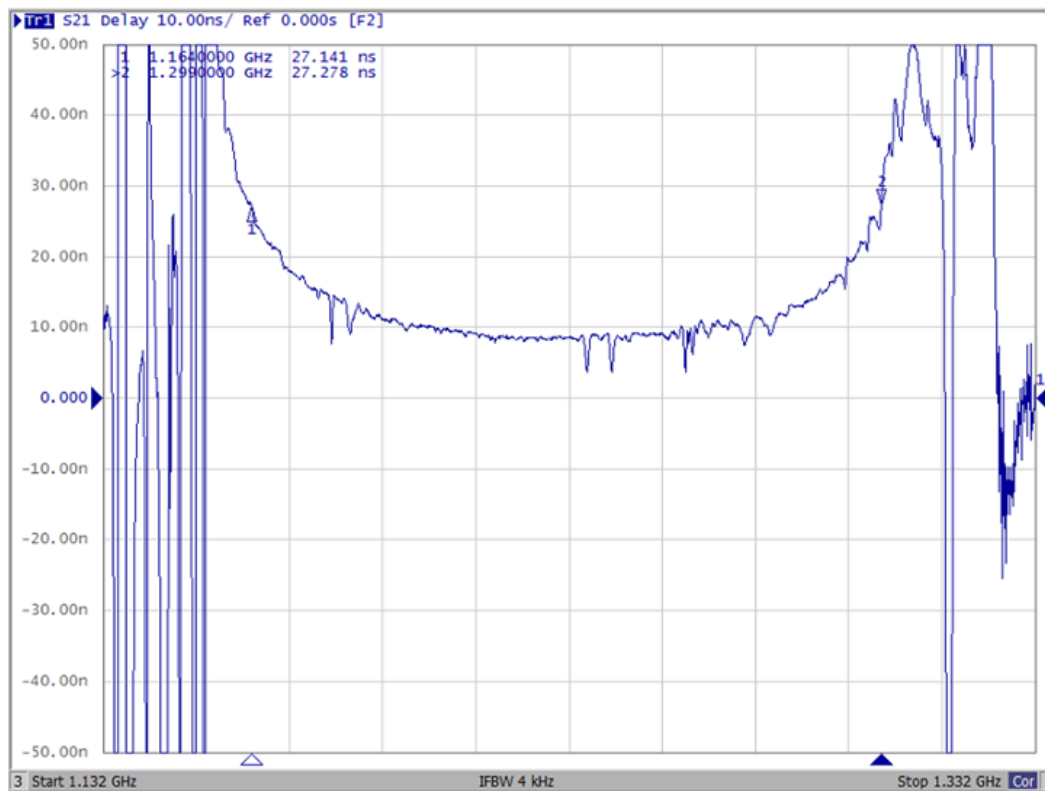
L1 Input VSWR:



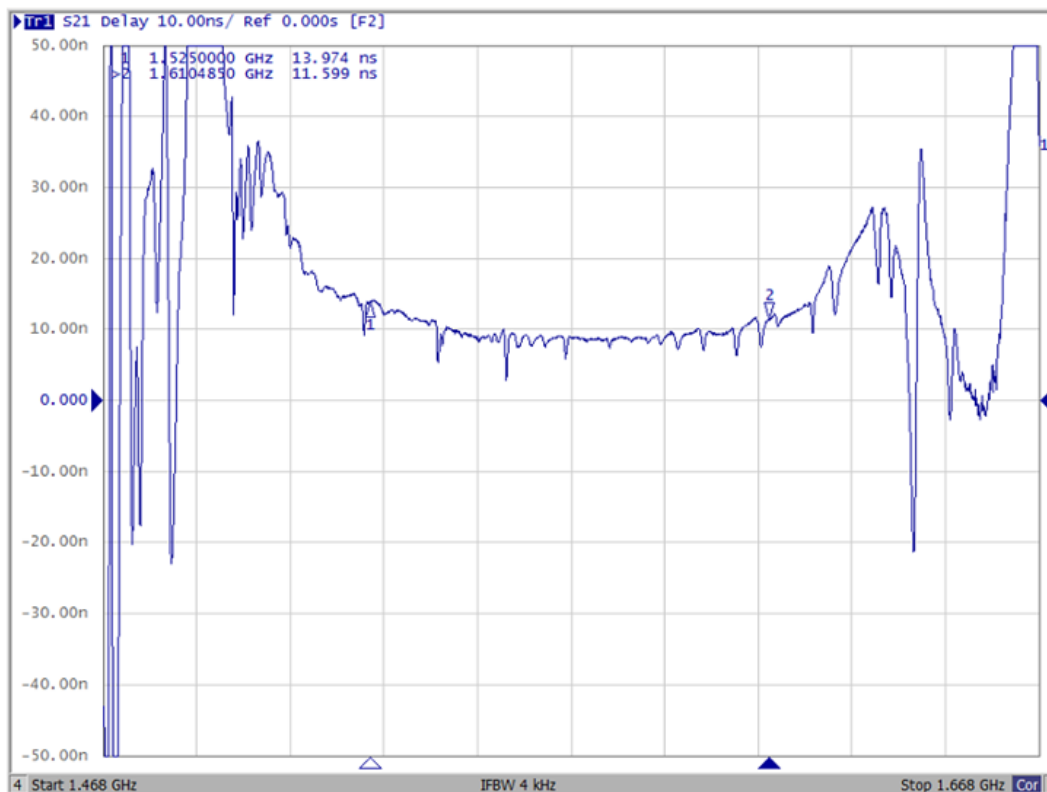
L1 Output VSWR:



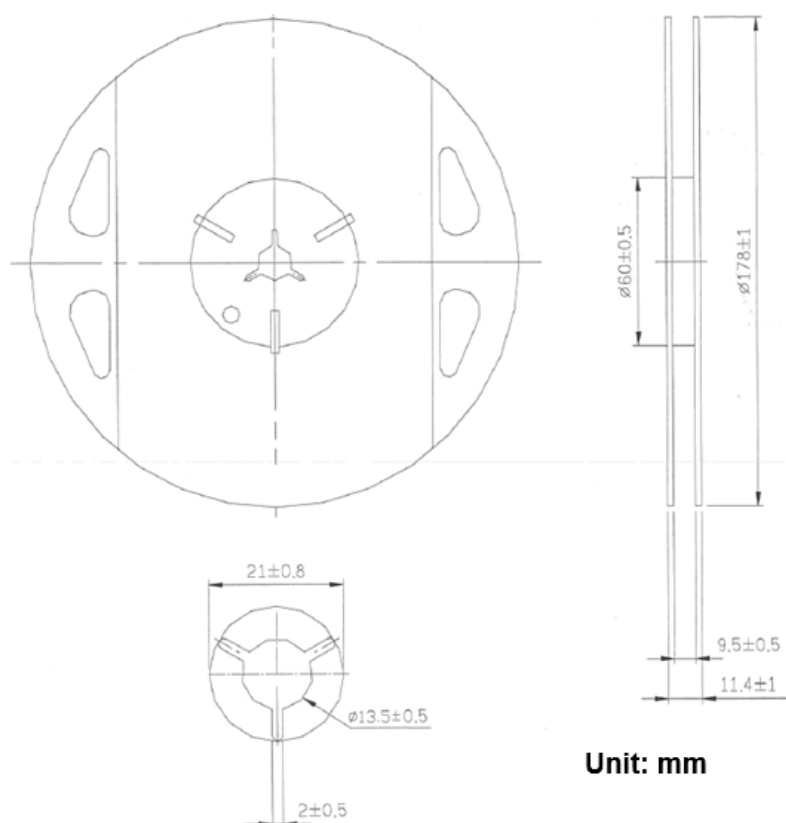
L5L2L6 Group Delay:



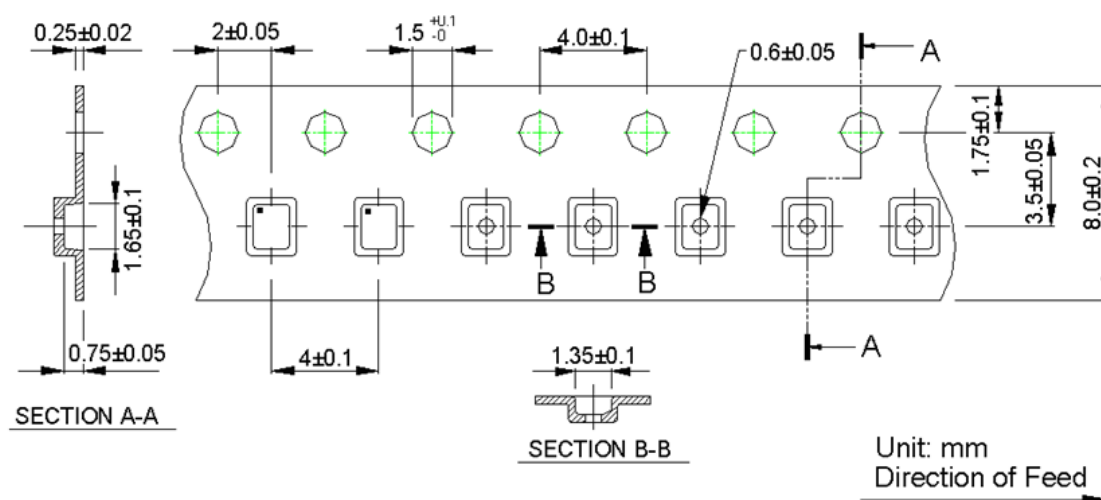
L1 Group Delay:



Reel Dimension:



Tape Dimension:



RECOMMENDED REFLOW 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 245~260°C peak (20 - 40 sec).
4. Time : 2 times.

