

1189/ 1582.5 MHz SAW Diplexer

MODEL NO.: TE0133B

REV. NO.:1

A. MAXIMUM RATING:

1. Input Power Level: 10 dB_m
2. DC voltage: 6 V
3. Operating Temperature: -40°C to +105°C
4. Storage Temperature: -40°C to +105°C
5. Moisture Sensitivity Level: Level 1(**MSL1**)

RoHS Compliant
Lead free
Lead-free soldering

Electrostatic Sensitive Device (**ESD**)

B. ELECTRICAL CHARACTERISTICS:

(L5_1189 MHz)

Item	Unit	Min.	Typ.	Max.	
Center frequency Fc	MHz	-	1189	-	
Insertion Loss (1164~1214 MHz) IL	dB	-	3.9	5.0	
Amplitude Ripple (1164~1214 MHz)	dB	-	1.3	2.5	
Group delay ripple (1164~1214 MHz)	ns	-	10	45	
Attenuation (Reference level from 0 dB)					
658 ~ 703 MHz	dB	30	55	-	
703 ~ 915 MHz	dB	30	45	-	
1427.9 ~ 1462.9 MHz	dB	30	37	-	
1695 ~ 1710 MHz	dB	30	36	-	
1710 ~ 1785 MHz	dB	32	37	-	
1850 ~ 2690 MHz	dB	22	28	-	
3400 ~ 3800 MHz	dB	34	40	-	
5150 ~ 5925 MHz	dB	30	52	-	

(L1_1582.5 MHz)

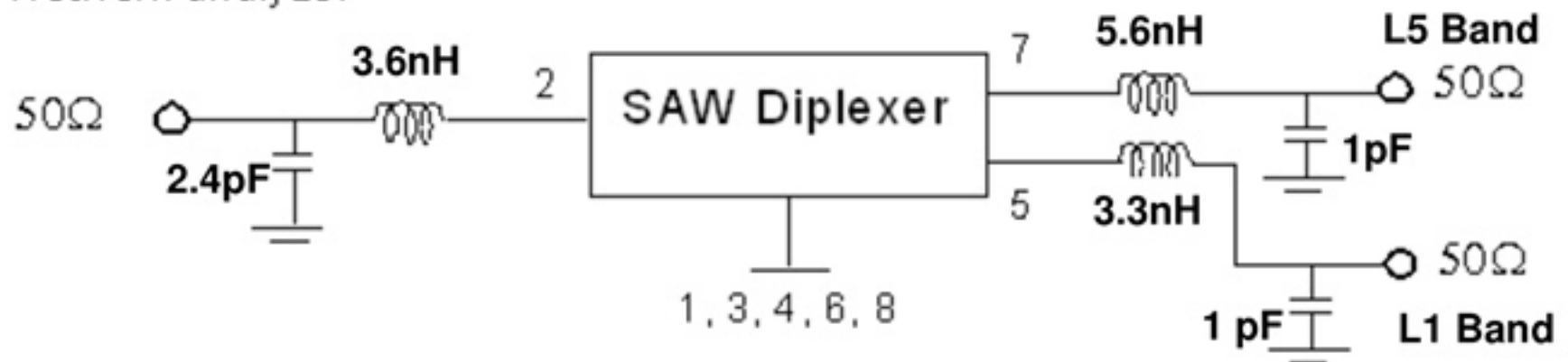
Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	1582.5	-
Insertion Loss (1559~1606 MHz) IL	dB	-	5.2	7.2
Amplitude Ripple (1559~1606 MHz)	dB	-	1.3	3.4
Group delay ripple (1559~1606 MHz)	ns	-	6	30
Attenuation (Reference level from 0 dB)				
658 ~ 703 MHz	dB	30	37	-
703 ~ 915 MHz	dB	30	37	-
1427.9 ~ 1462.9 MHz	dB	30	42	-
1695 ~ 3800 MHz	dB	30	38	-
5150 ~ 5925 MHz	dB	30	67	-

(L1 – L5)

Item	Unit	Min.	Typ.	Max.
Isolation 1164~1214 MHz	dB	30	36	-
Isolation 1559~1606 MHz	dB	30	36	-

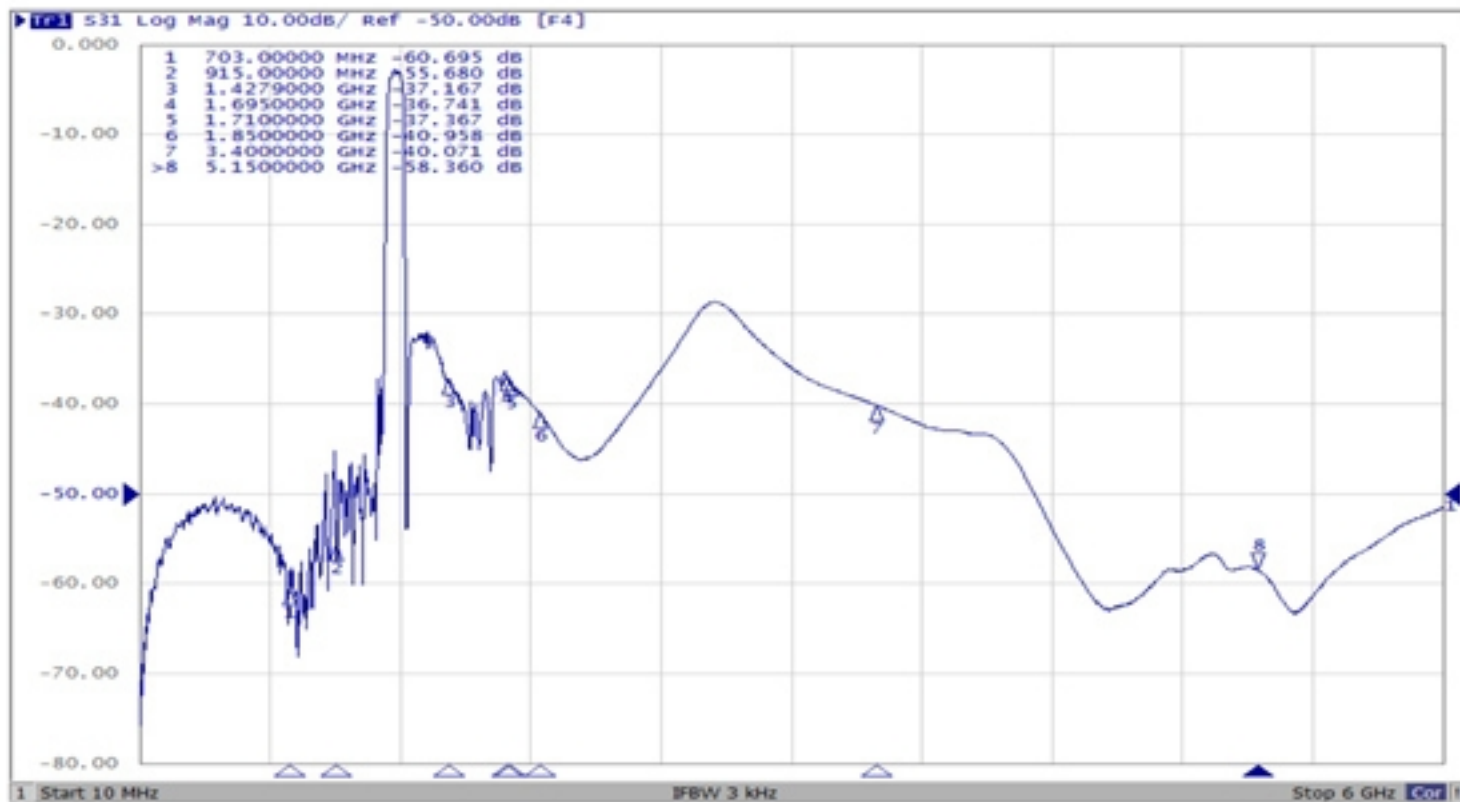
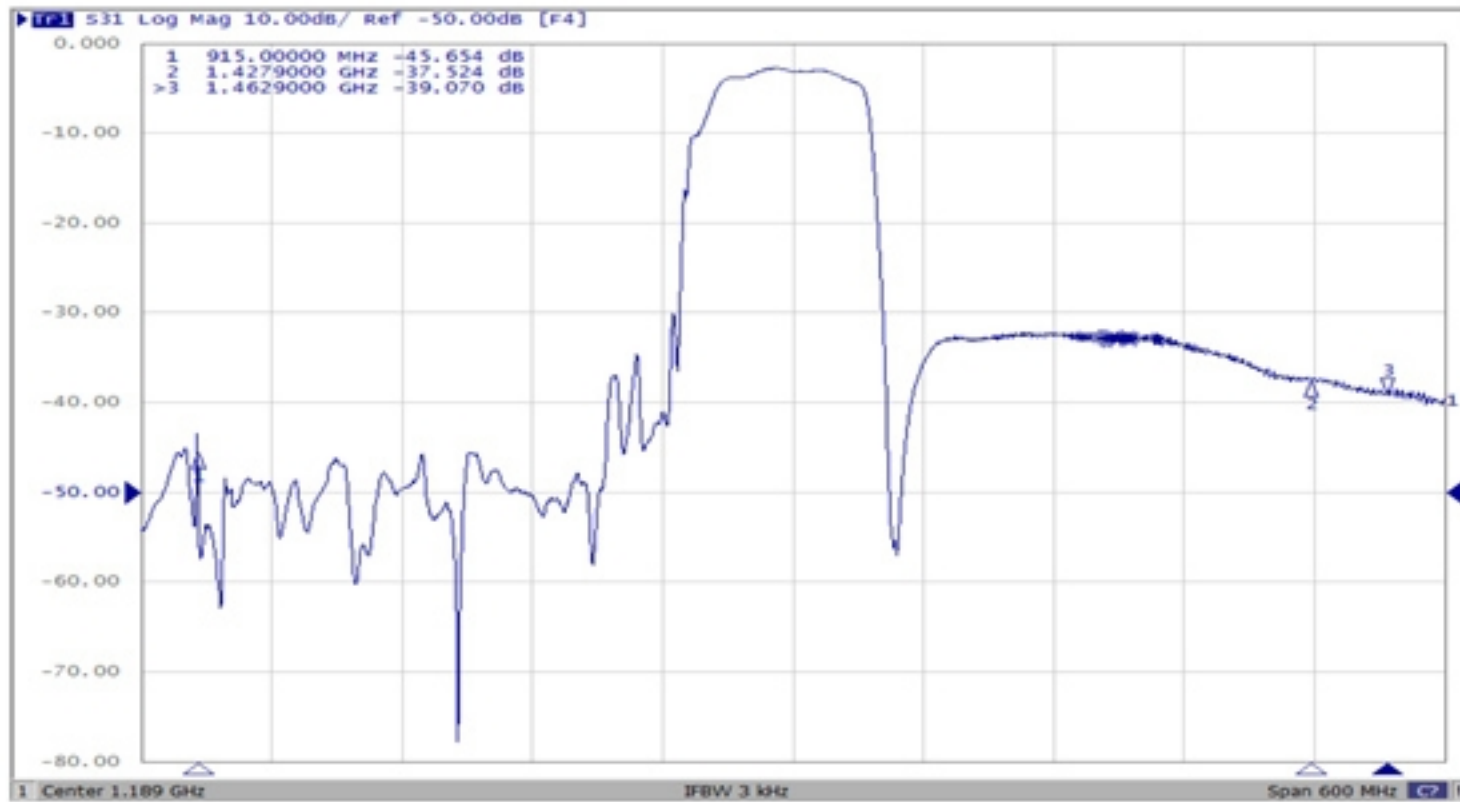
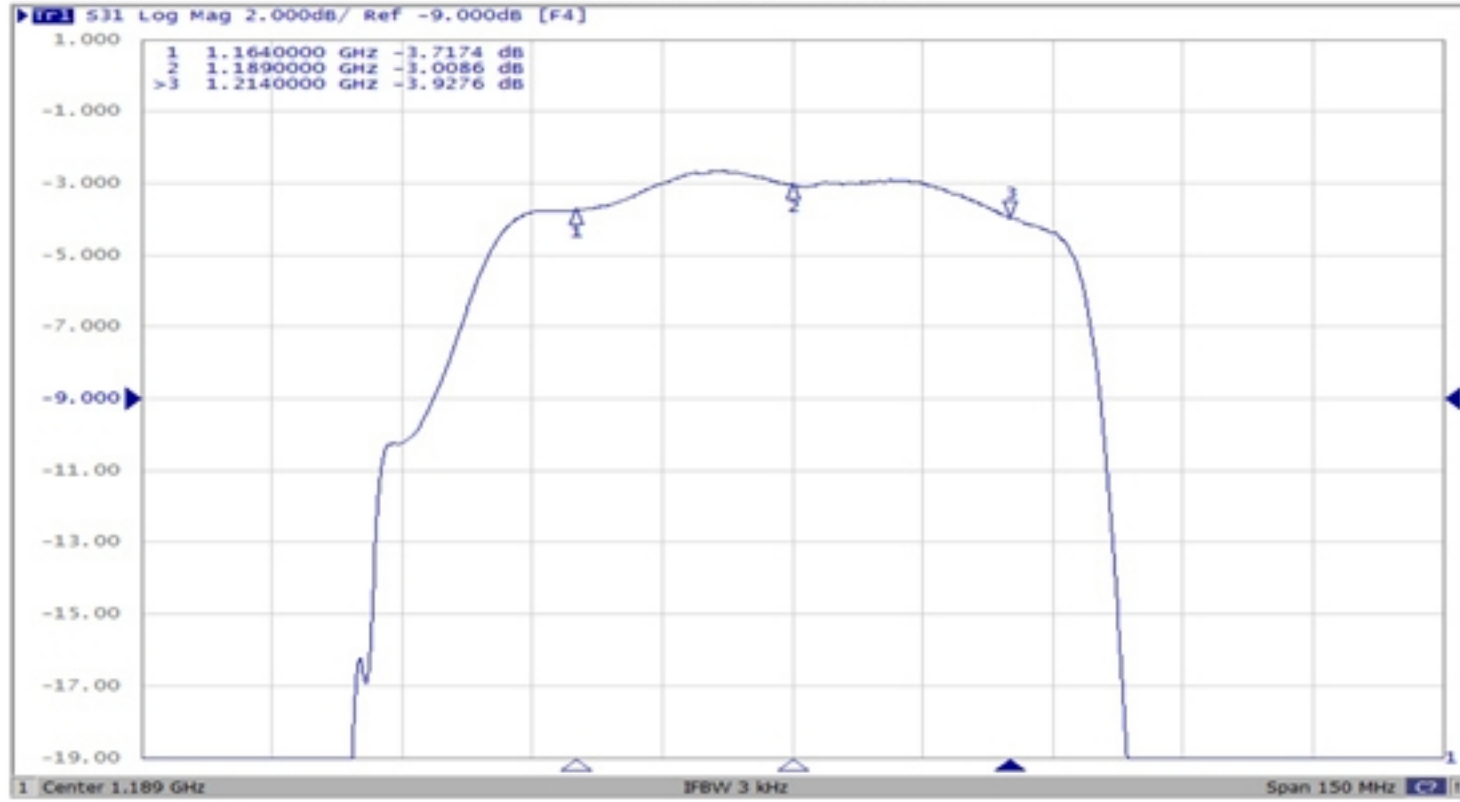
C. MEASUREMENT CIRCUIT:

HP Network analyzer

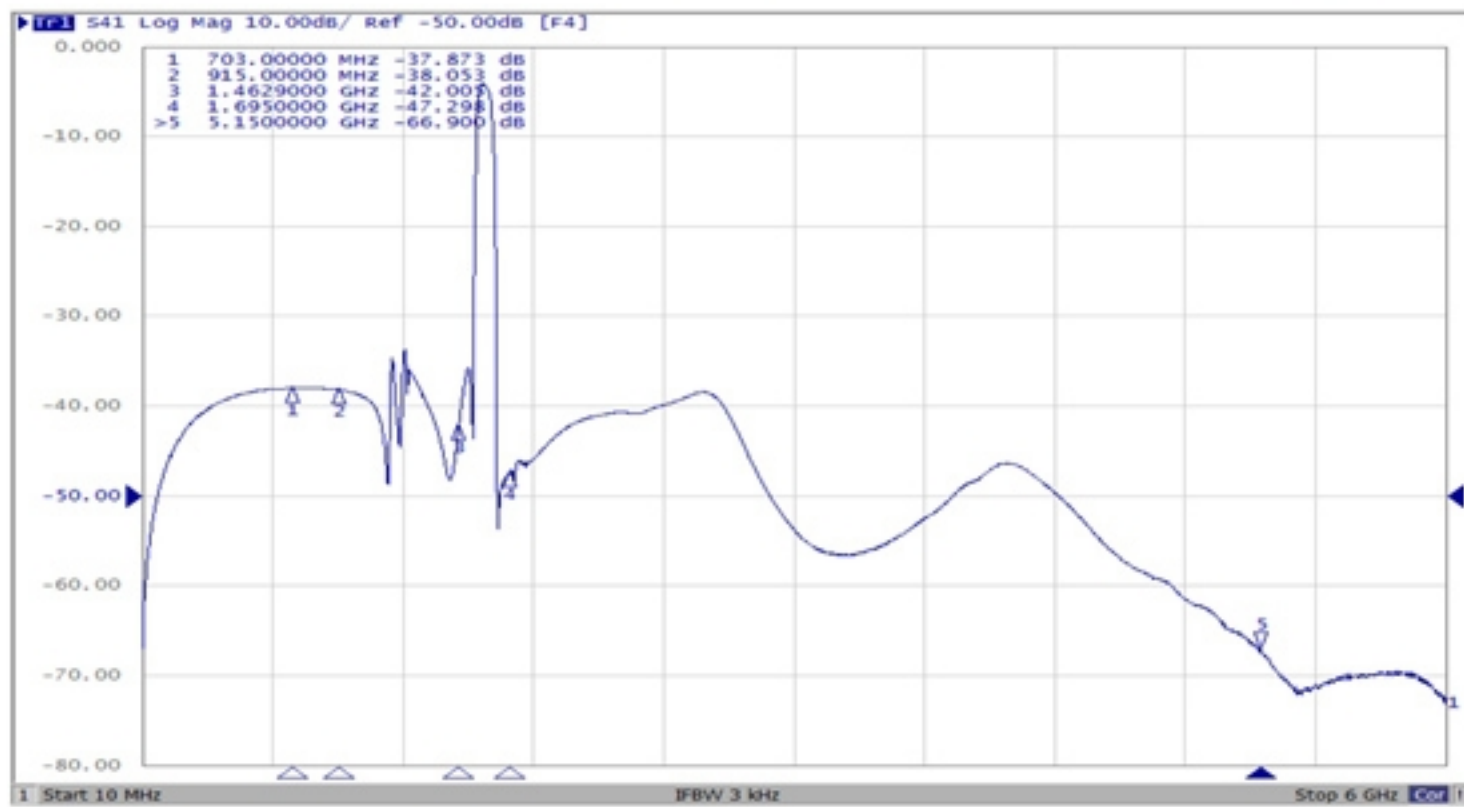
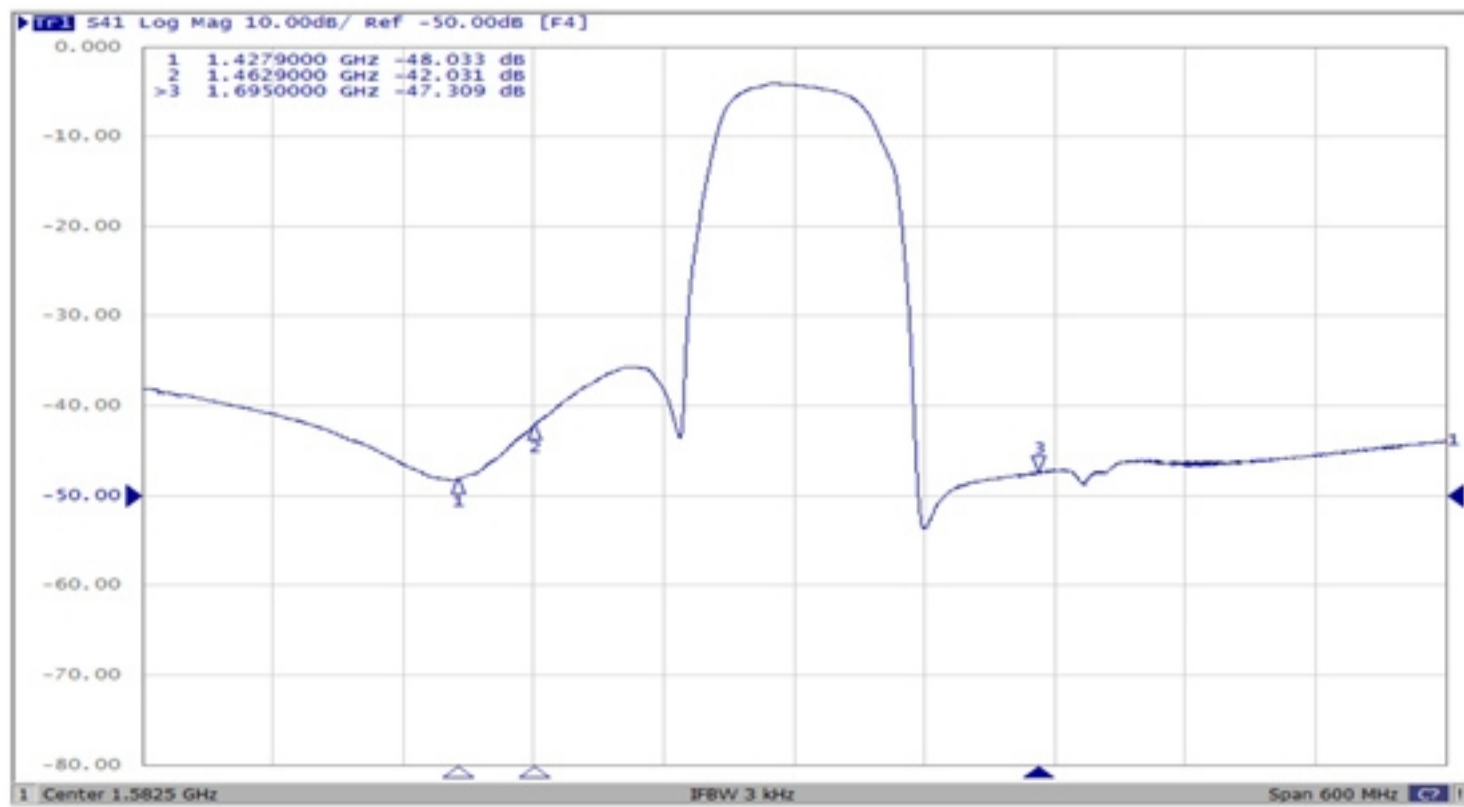
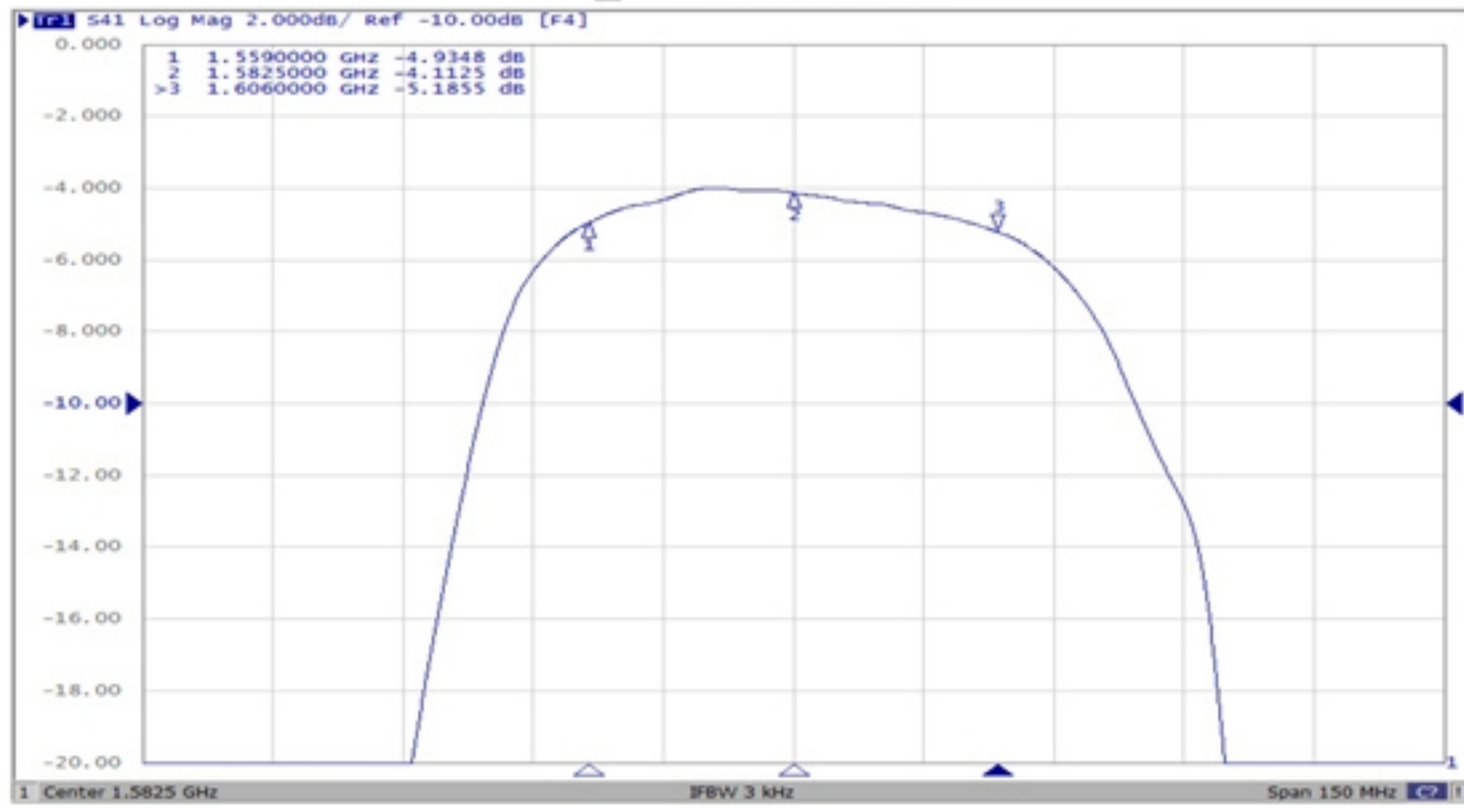


D. Frequency Characteristics:

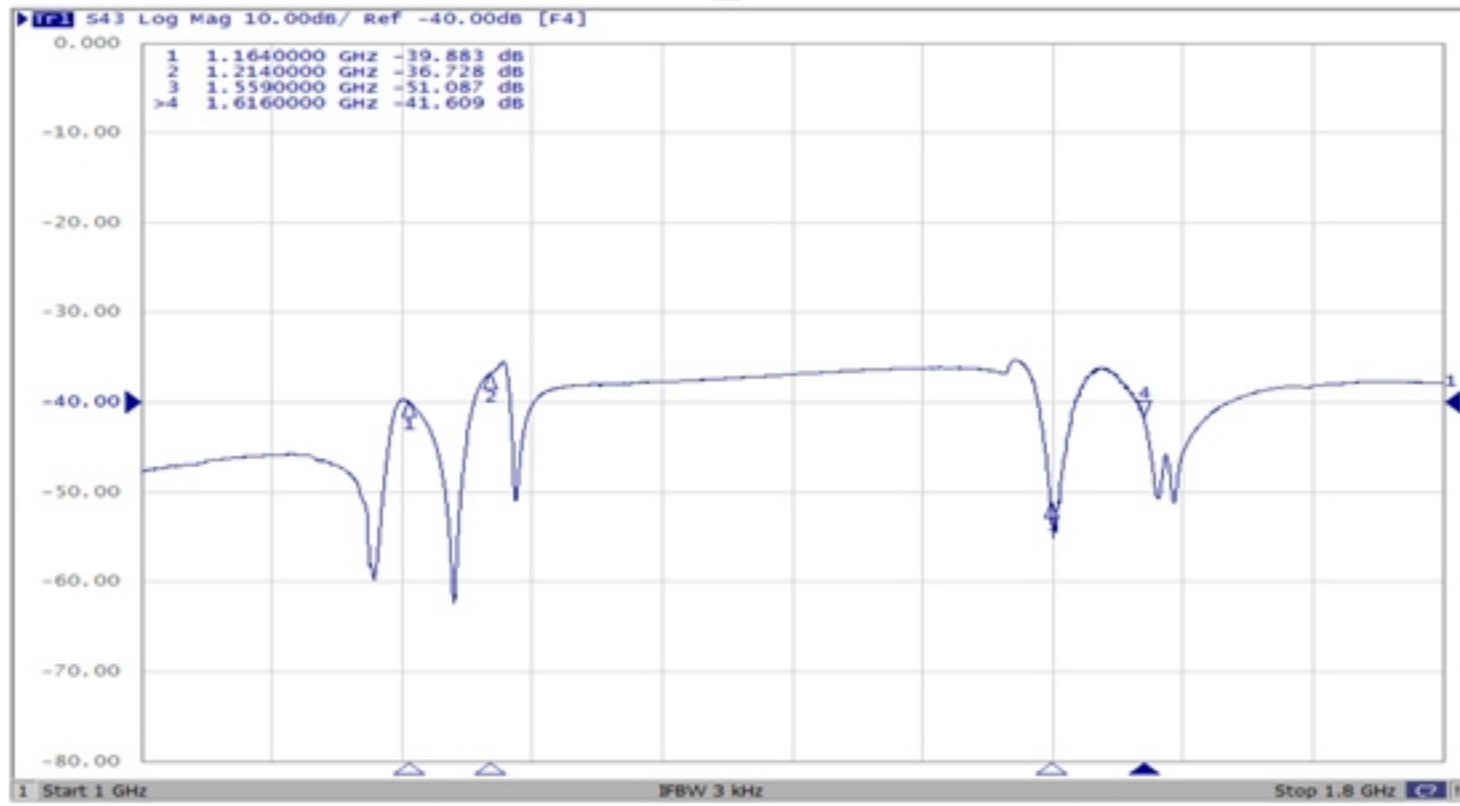
L5_Characteristics



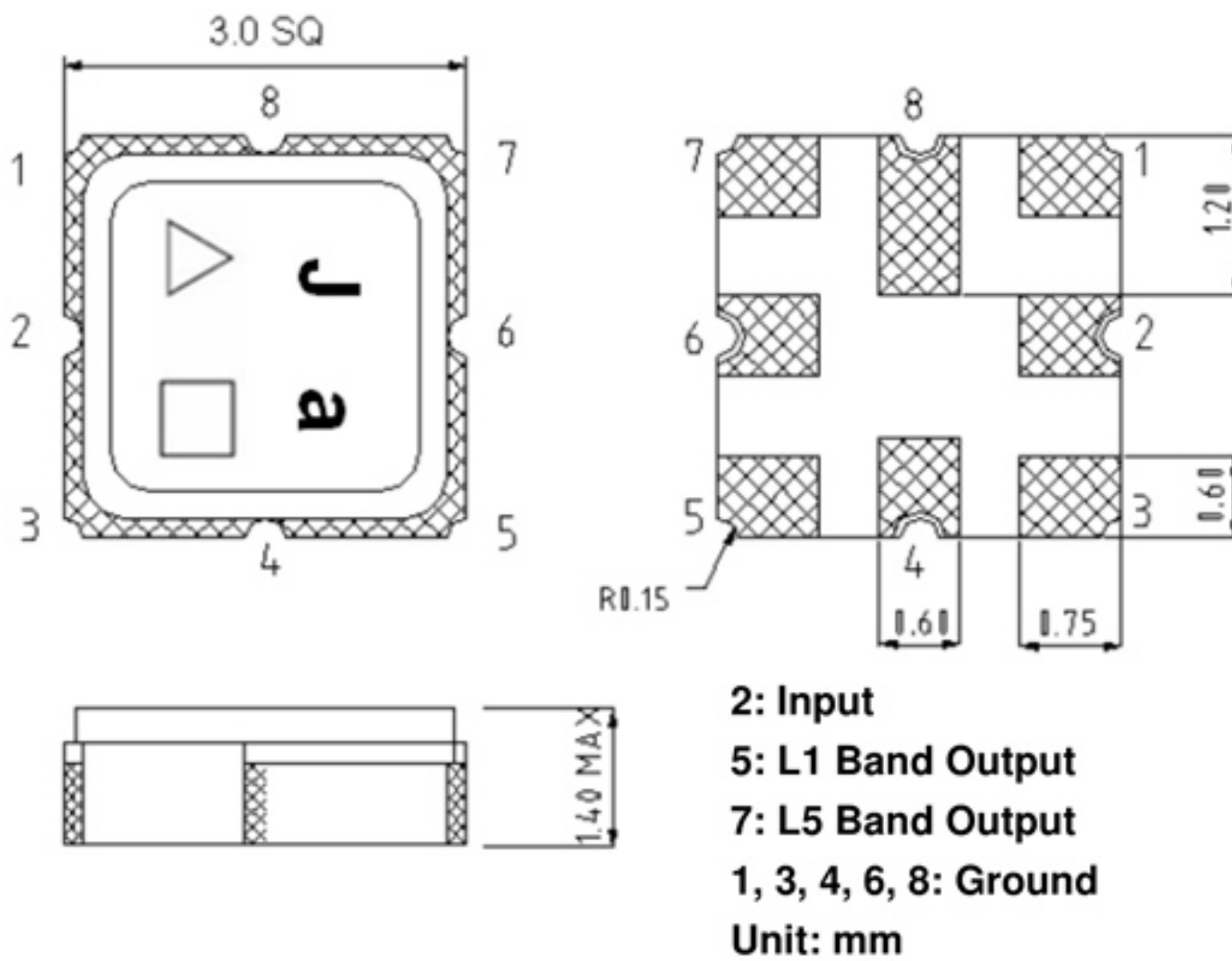
L1_Characteristics



L1 – L5_Isolation



E. OUTLINE DRAWING:



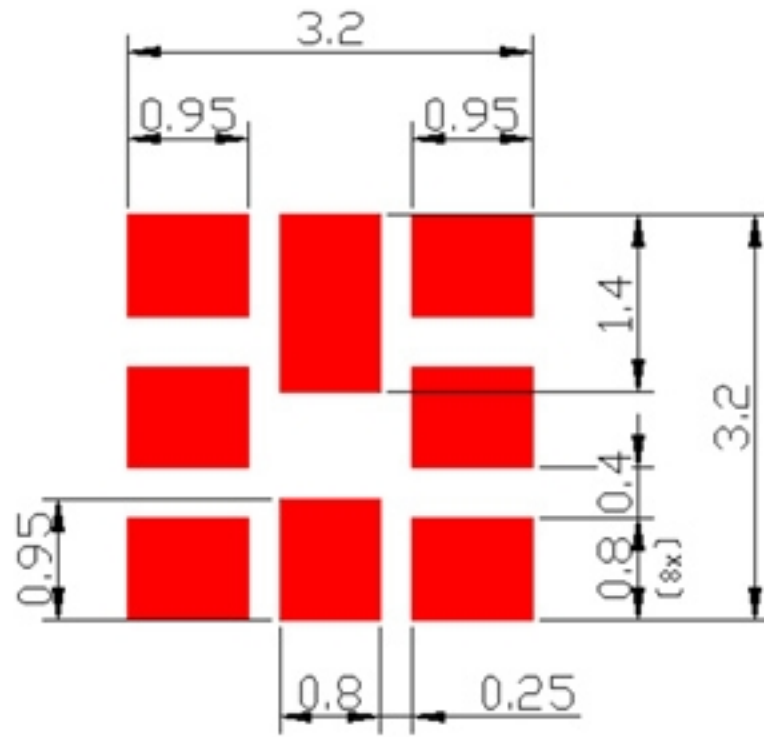
△ : Year Code (2011->1, 2012->2, ..., 2019->9, 2020->0)

□ : Date Code

Date Code Table:

WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45	WK46	WK47	WK48	WK49	WK50	WK51	WK52
n	o	p	q	r	s	t	u	v	w	x	y	z

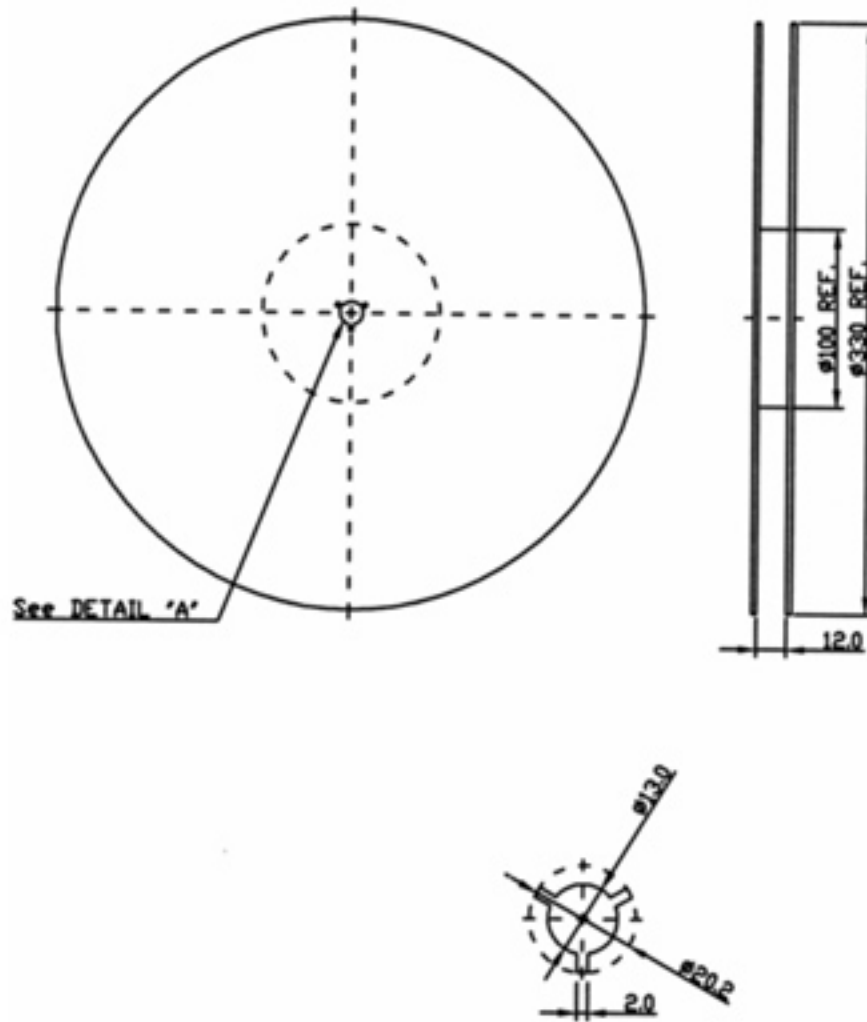
F. PCB Footprint:



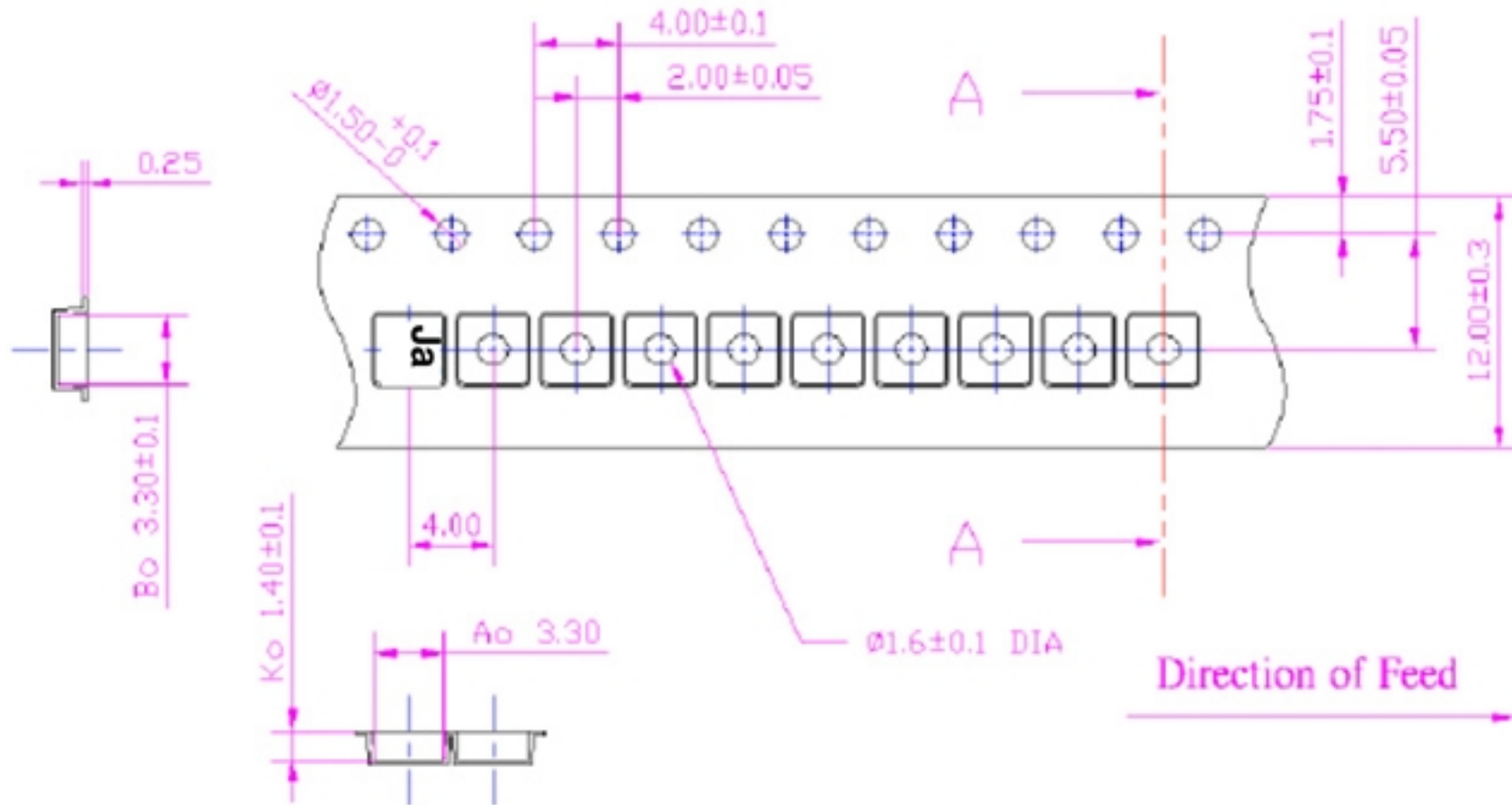
G. PACKING: (Ref. WI-75M03)

1. REEL DIMENSION

(Please refer to FR-75D10 for packing quantity)



2. TAPE DIMENSION



H. Recommended Reflow Profile:

1. Preheating shall be fixed at $150 \sim 180^\circ\text{C}$ 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 $260^\circ\text{C} + 0/-5^\circ\text{C}$ peak (20~40sec).
4. Time: 2 times.

