

## 1223/ 1582.5 MHz SAW Diplexer

MODEL NO.: TE0137B

REV. NO.:1

### A. MAXIMUM RATING:

1. Input Power Level: 10 dB<sub>m</sub>
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:

(L2\_1223 MHz)

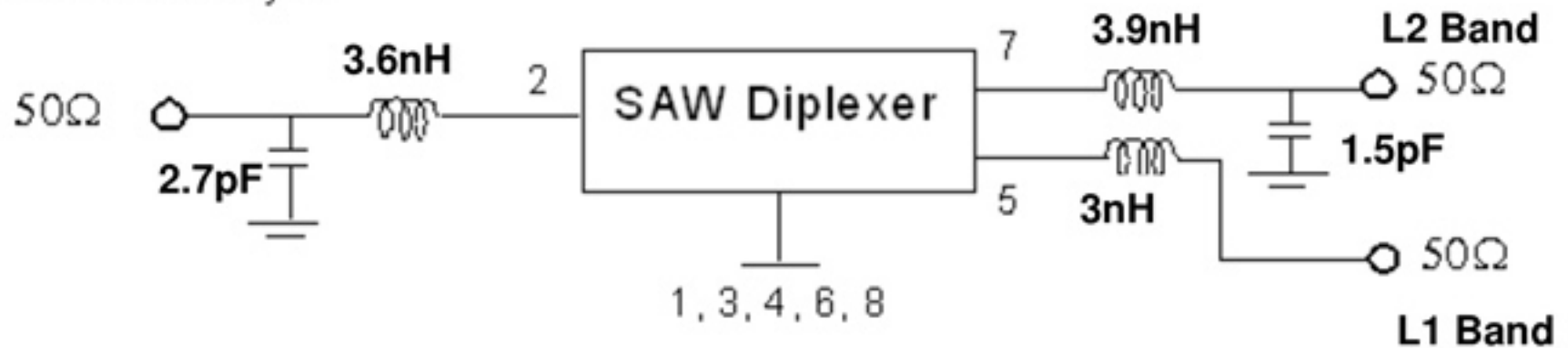
Item	Unit	Min.	Typ.	Max.	
Center frequency	Fc MHz	-	1223	-	
Insertion Loss (1197~1249 MHz)	IL dB	-	3.9	6.0	
Group Delay Variation (1197~1249 MHz)	ns	-	5	20	
Group Delay Variation (1197~1217 MHz)	ns	-	4	20	
Group Delay Variation (1217~1237 MHz)	ns	-	3	10	
Group Delay Variation (1242~1249 MHz)	ns	-	1	10	
<b>Attenuation</b> (Reference level from 0 dB)					
880 ~ 920 MHz	dB	45	49	-	
1710 ~ 1785 MHz	dB	30	35	-	
1850 ~ 1910 MHz	dB	38	43	-	
1920 ~ 1980 MHz	dB	34	46	-	
2400 ~ 2500 MHz	dB	35	40	-	

(L1\_1582.5 MHz)

Item	Unit	Min.	Typ.	Max.	
Center frequency	Fc	MHz	-	1582.5	-
Insertion Loss (1559~1606 MHz)	IL	dB	-	4.4	4.8
Group Delay Variation (1559~1606 MHz)		ns	-	5	15
Group Delay Variation (1559~1563 MHz)		ns	-	3	15
Group Delay Variation (1565~1585 MHz)		ns	-	2	10
Group Delay Variation (1598~1606 MHz)		ns	-	2	10
<b>Attenuation</b> (Reference level from 0 dB)					
880 ~ 920	MHz	dB	40	60	-
1710 ~ 1785	MHz	dB	30	35	-
1850 ~ 1910	MHz	dB	34	39	-
1920 ~ 1980	MHz	dB	36	41	-
2400 ~ 2500	MHz	dB	35	44	-

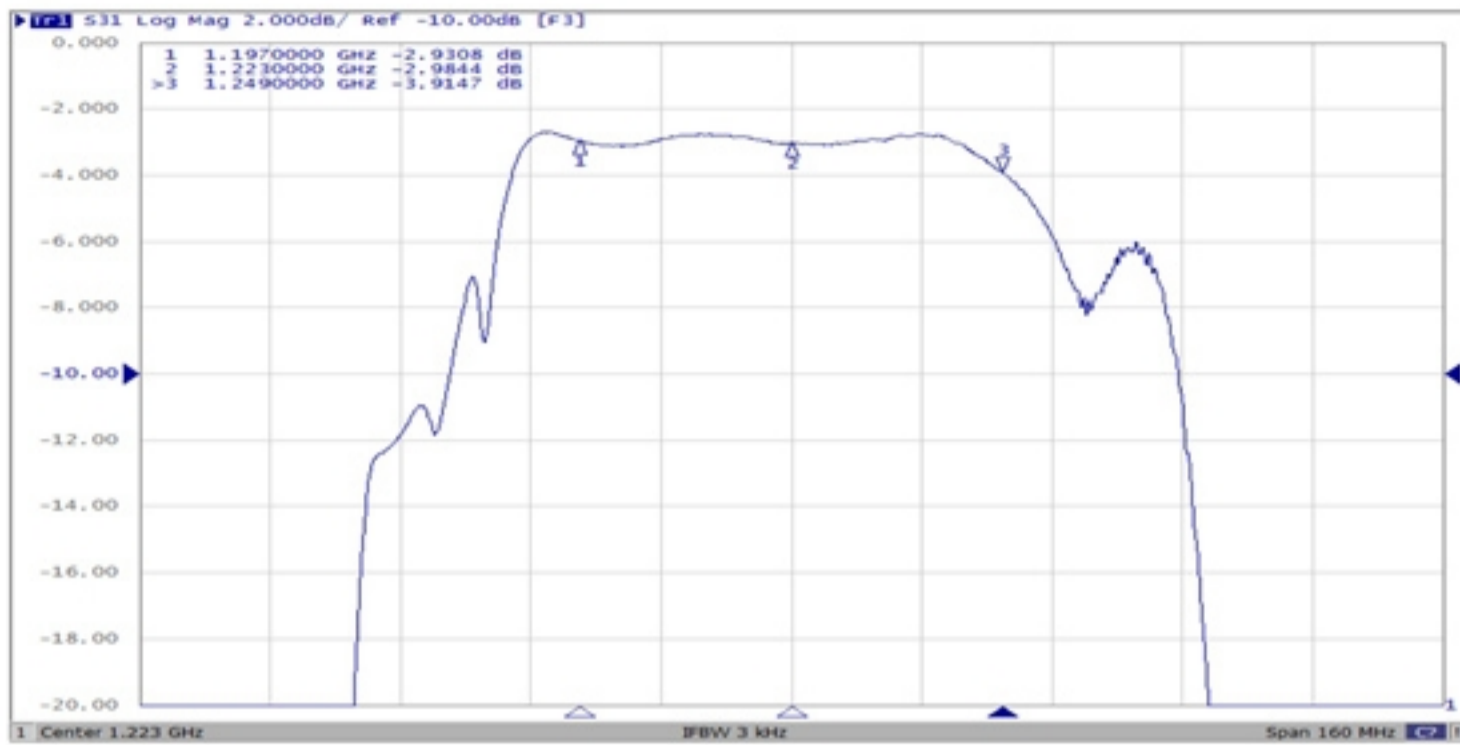
**C. MEASUREMENT CIRCUIT:**

HP Network analyzer

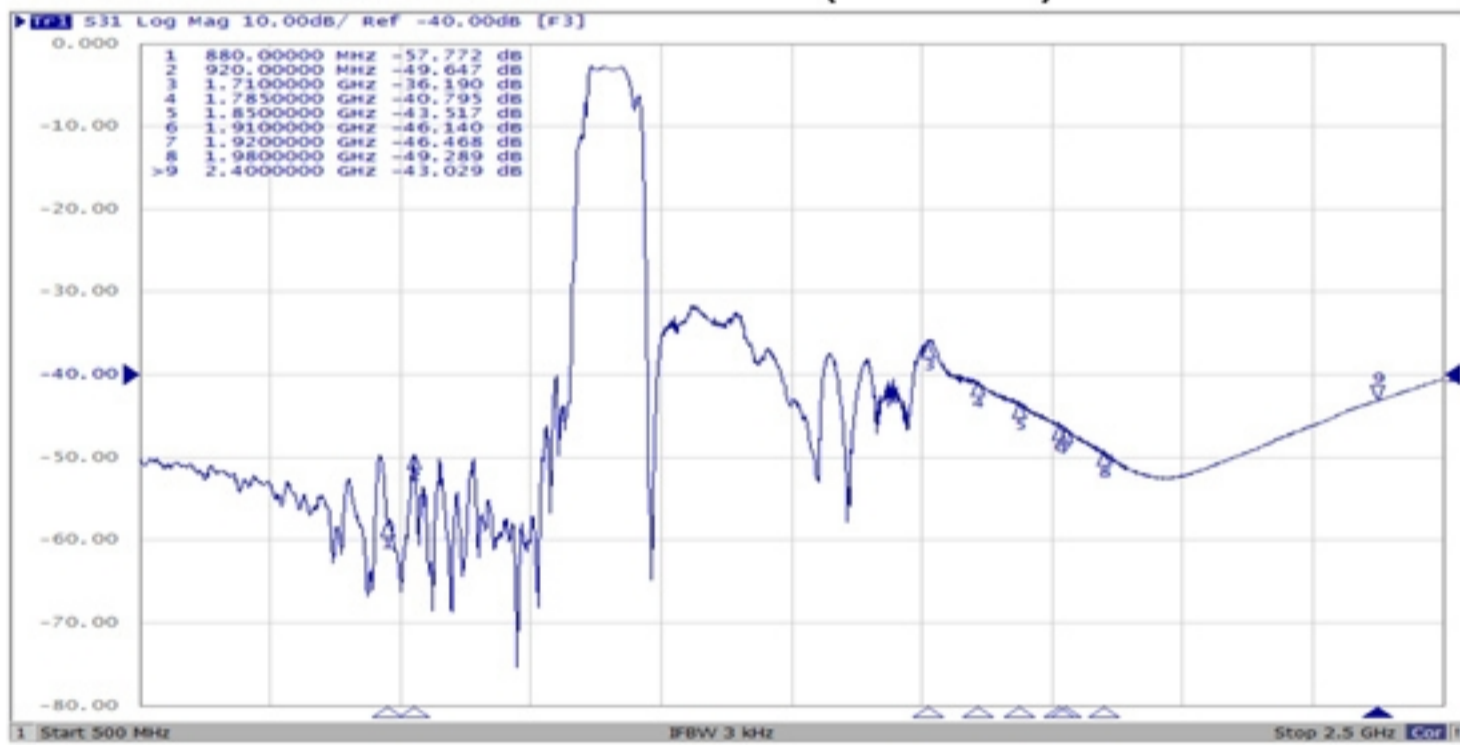


## D. Frequency Characteristics:

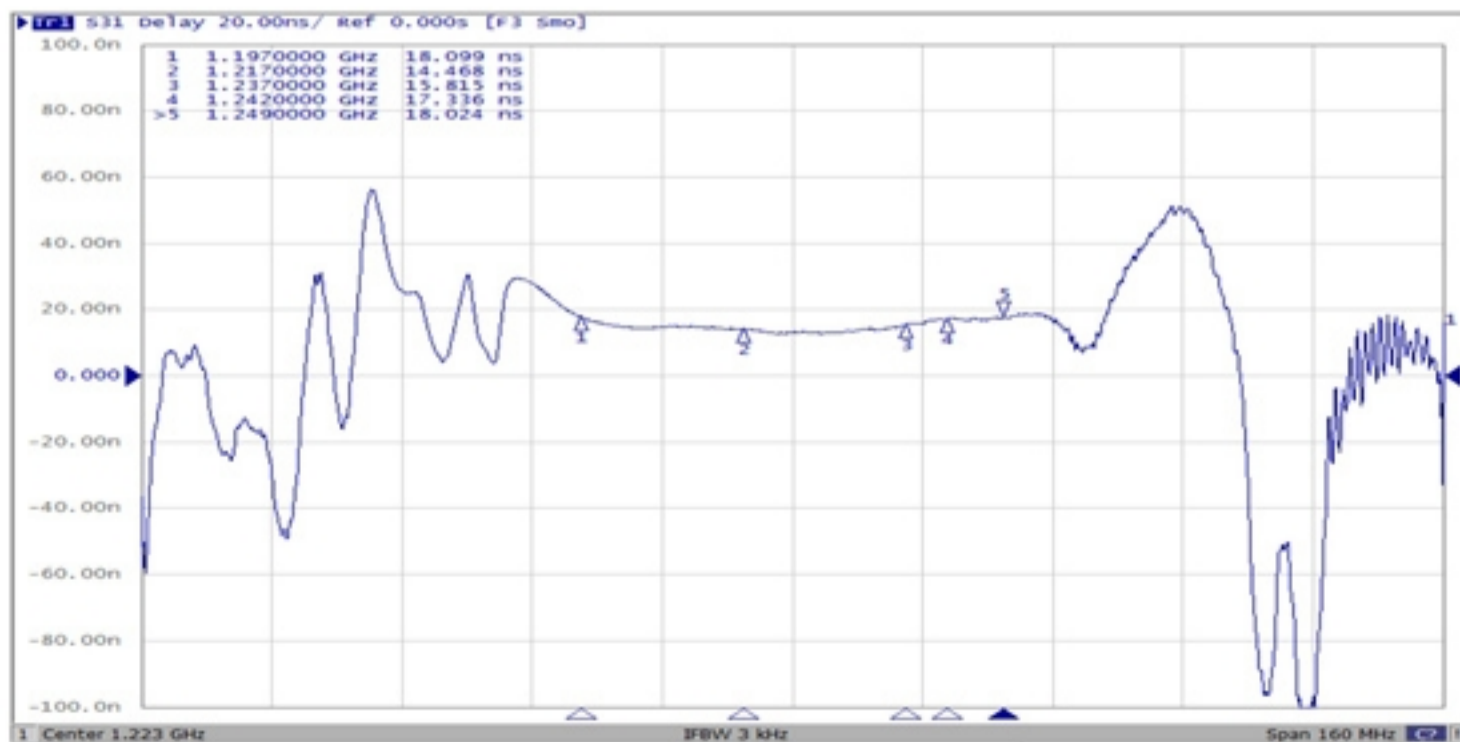
### L2 Characteristics



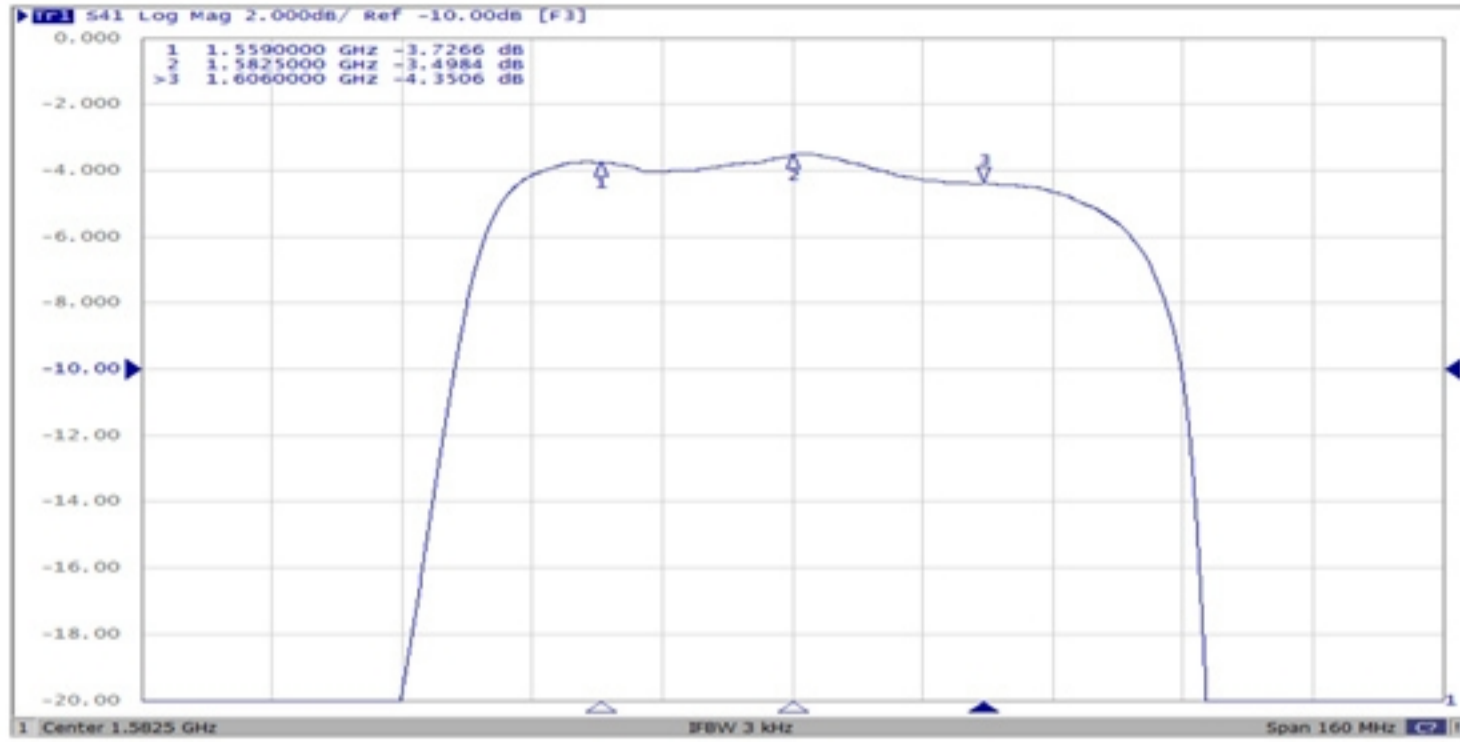
### L2 Characteristics (wideband)



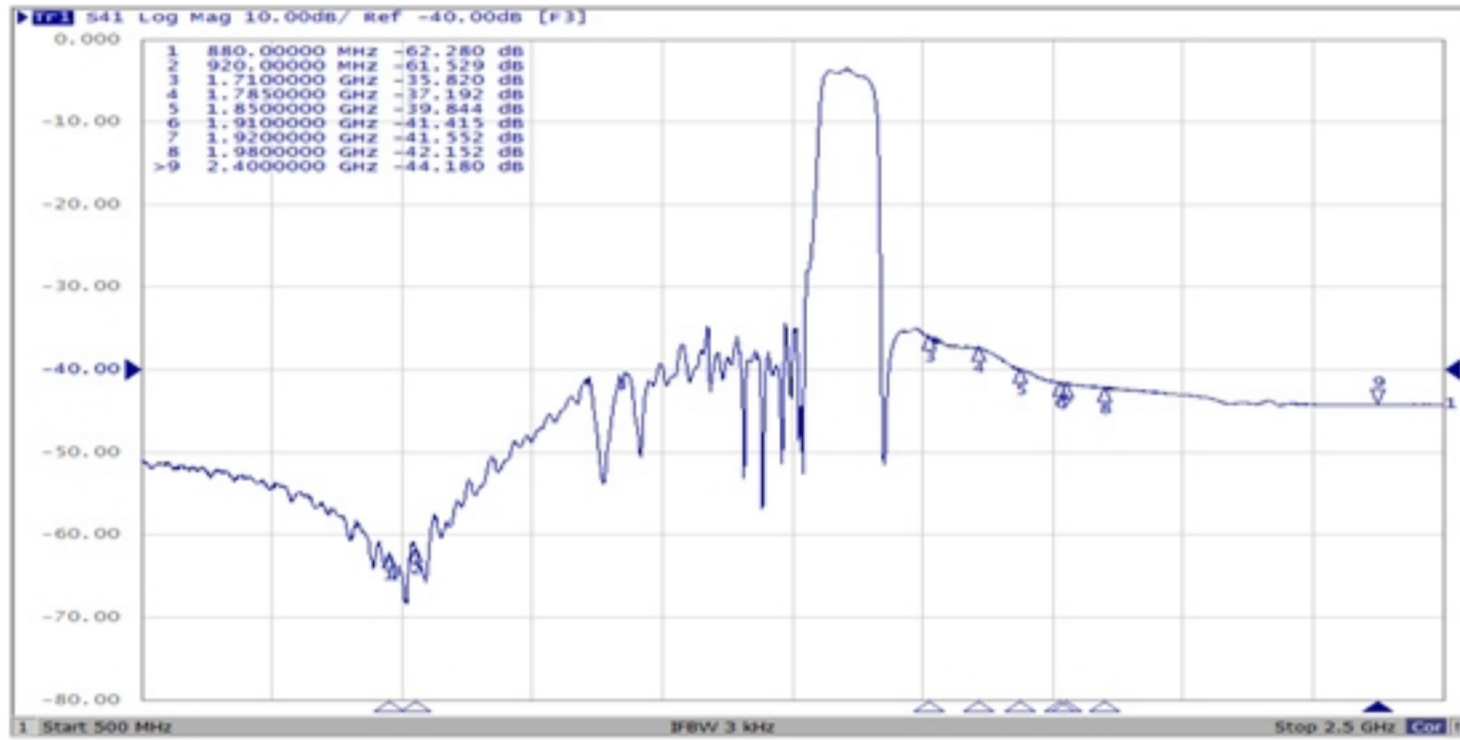
### L2 Group Delay



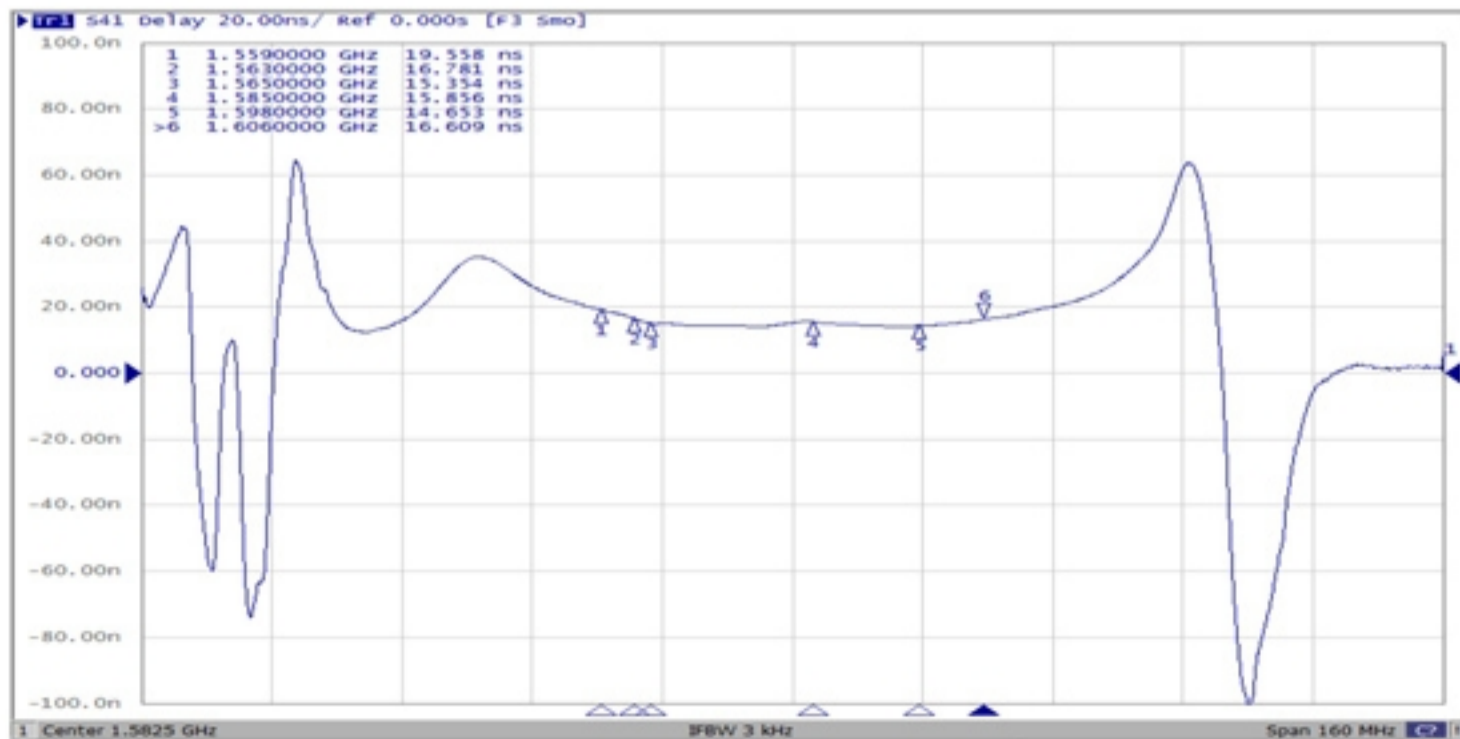
## L1 Characteristics



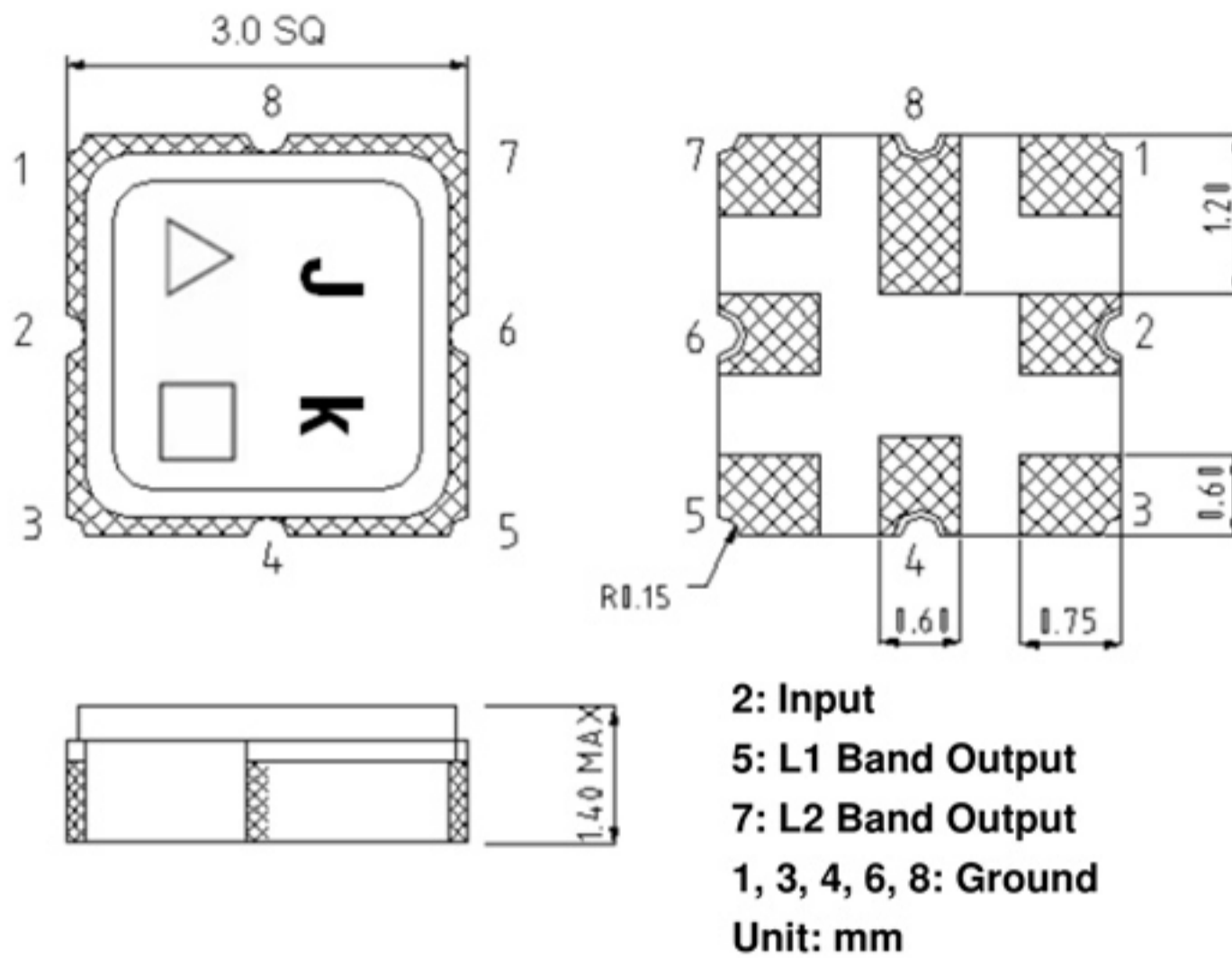
## L1 Characteristics (wideband)



## L1 Group Delay



**E. OUTLINE DRAWING:**



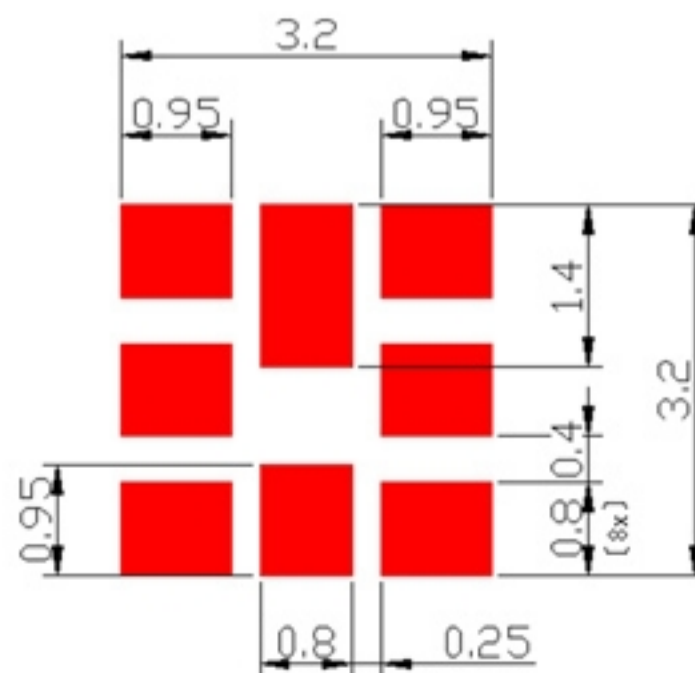
△ : Year Code (2011->1, 2012->2, ..., 2019->9, 2020->0)

□ : 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

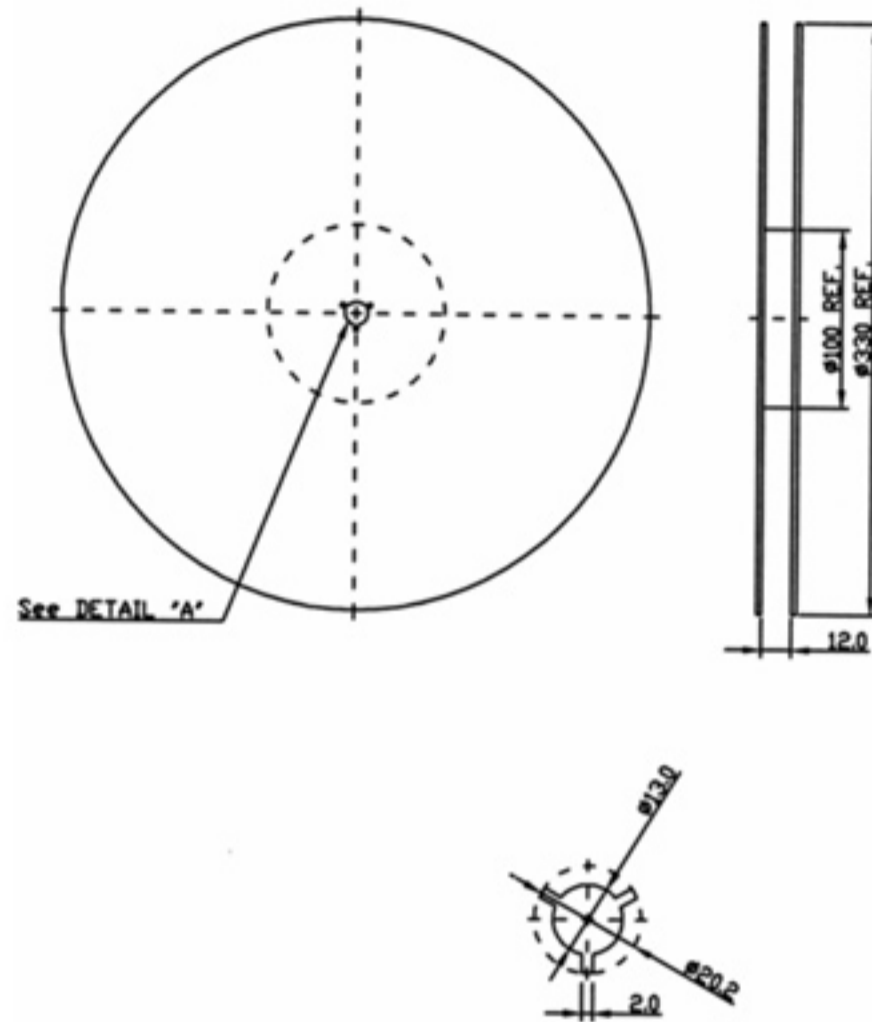
**F. PCB Footprint:**



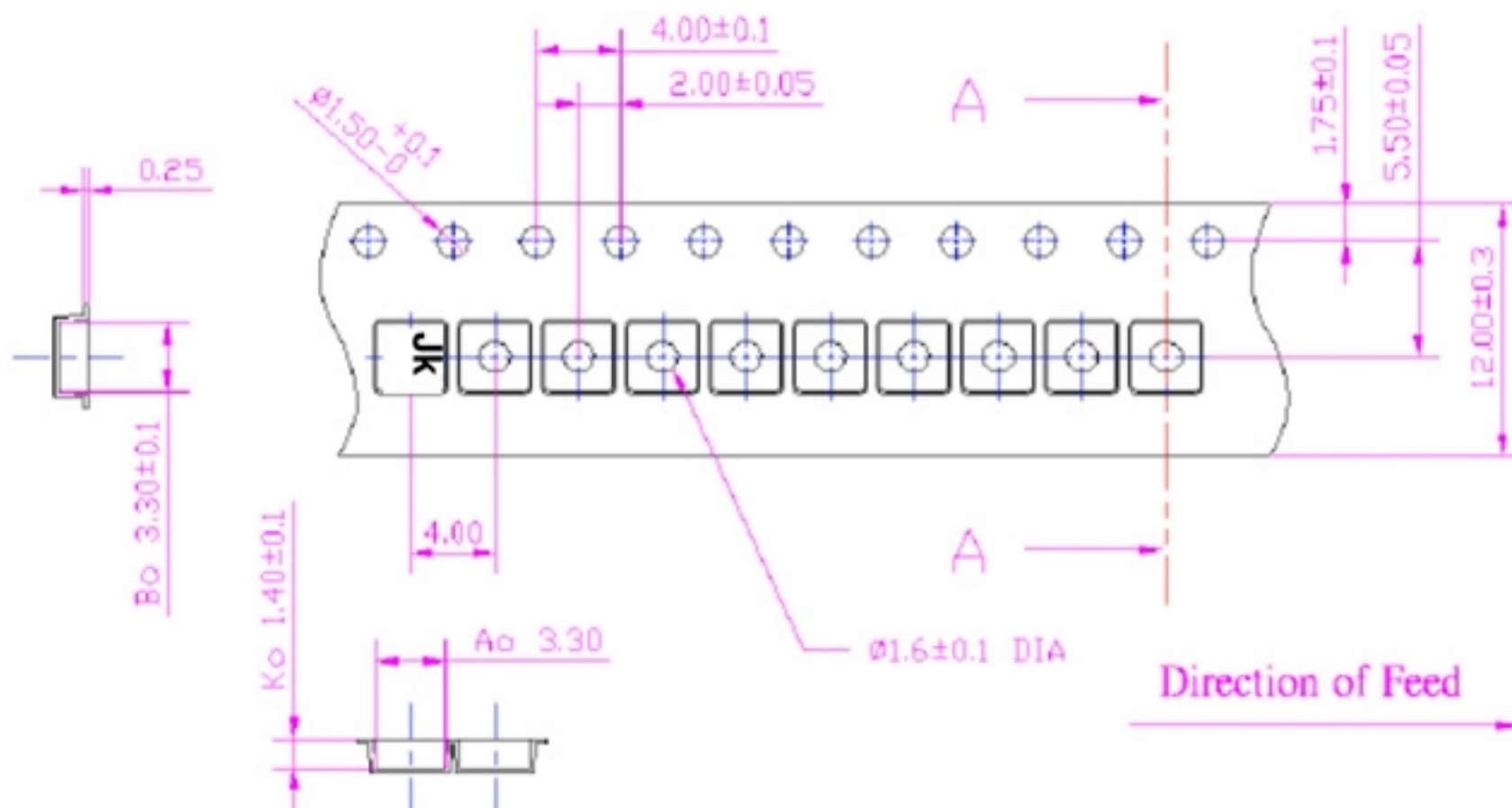
## G. PACKING: (Ref. WI-75M03)

### 1. REEL DIMENSION

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



### 2. TAPE DIMENSION



### H. Recommended Reflow Profile:

1. Preheating shall be fixed at 150~180°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.

