

1222.7625 / 1575.42 MHz SAW Diplexer

MODEL NO.: TE0131B

REV. NO.:1

A. MAXIMUM RATING:

1. Input Power Level: 10 dB_m
2. DC voltage: 3 V
3. Operating Temperature: -55°C to +85°C
4. Storage Temperature: -55°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:

(L1 Band GPS_1575.42 MHz)

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	1575.42	-
Insertion Loss (1574.22~1576.62 MHz) IL	dB	-	3.3	3.8
Amplitude Ripple (1574.22~1576.62 MHz)	dB	-	0.1	1.0
Return Loss (1574.22~1576.62 MHz)	dB	8.5	12	-
Attenuation (Reference level from 0 dB)				
824 ~ 960 MHz	dB	25	47	-
1500 ~ 1525.42 MHz	dB	8	19	-
1625.42 ~ 1650 MHz	dB	8	16	-
1710 ~ 2170 MHz	dB	25	34	-

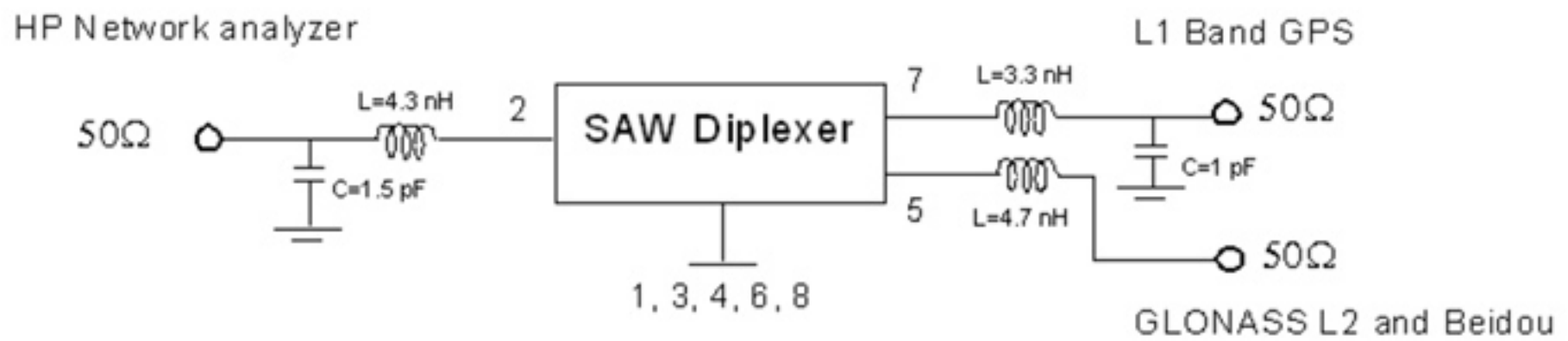
(GLONASS L2 and Beidou B2_1222.7625 MHz)

Item	Unit	Min.	Typ.	Max.
Center frequency Fc	MHz	-	1222.7625	-
Insertion Loss (1196.9~1248.625 MHz) IL	dB	-	4.1	4.8
Amplitude Ripple (1196.9~1248.625 MHz)	dB	-	0.9	1.8
Return Loss (1196.9~1248.625 MHz)	dB	8.5	12	-
Attenuation (Reference level from 0 dB)				
464 ~ 600 MHz	dB	25	32	-
1110 ~ 1130 MHz	dB	16	23	-
1330 ~ 1450 MHz	dB	28	37	-
1500 ~ 1820 MHz	dB	25	30	-

(L1 Band GPS - GLONASS L2 and Beidou B2)

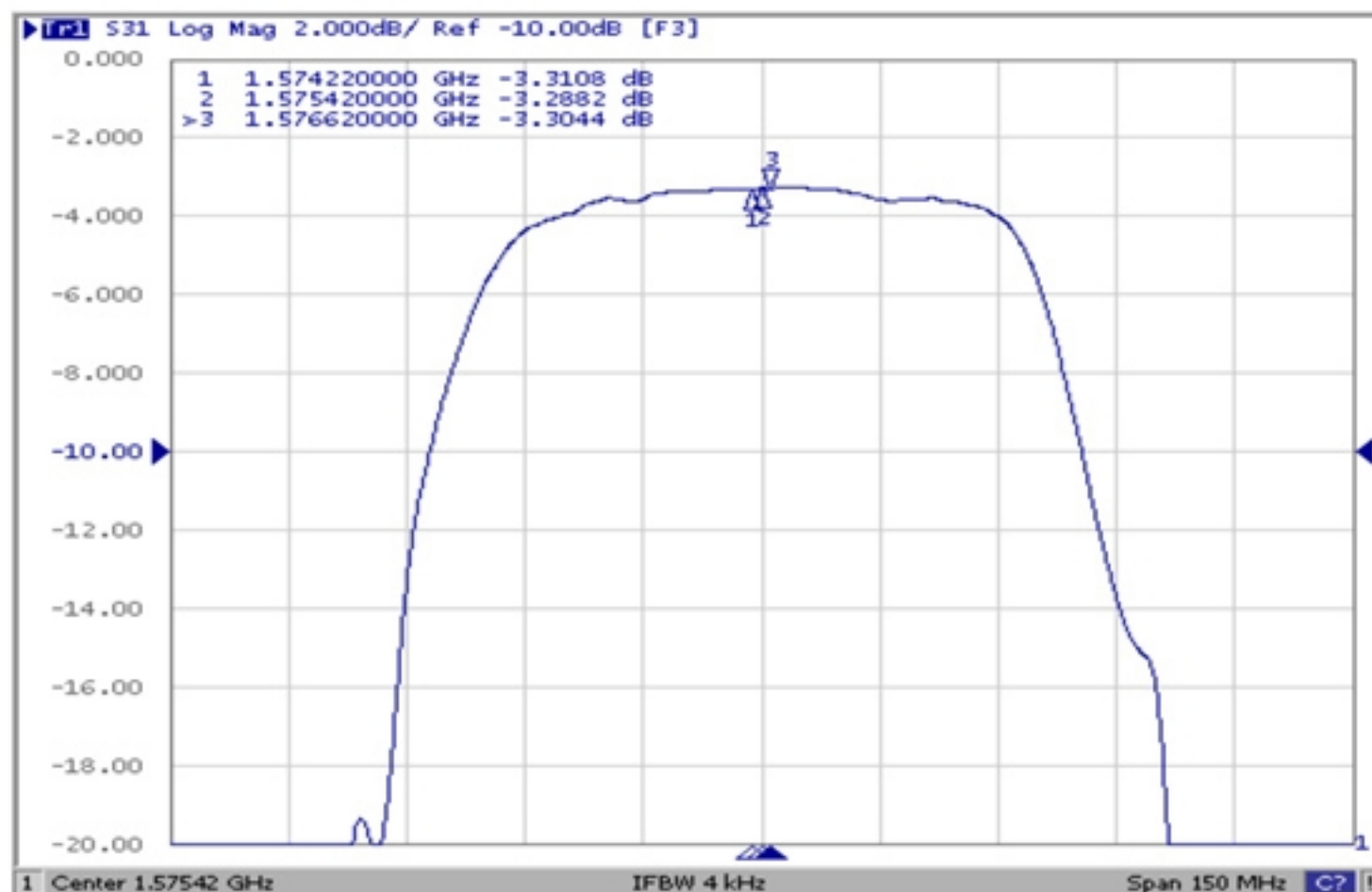
Item	Unit	Min.	Typ.	Max.
Isolation (1196.9~1248.625 MHz)	dB	22	36	-
Isolation (1574.22~1576.62 MHz)	dB	22	33	-

C. MEASUREMENT CIRCUIT:

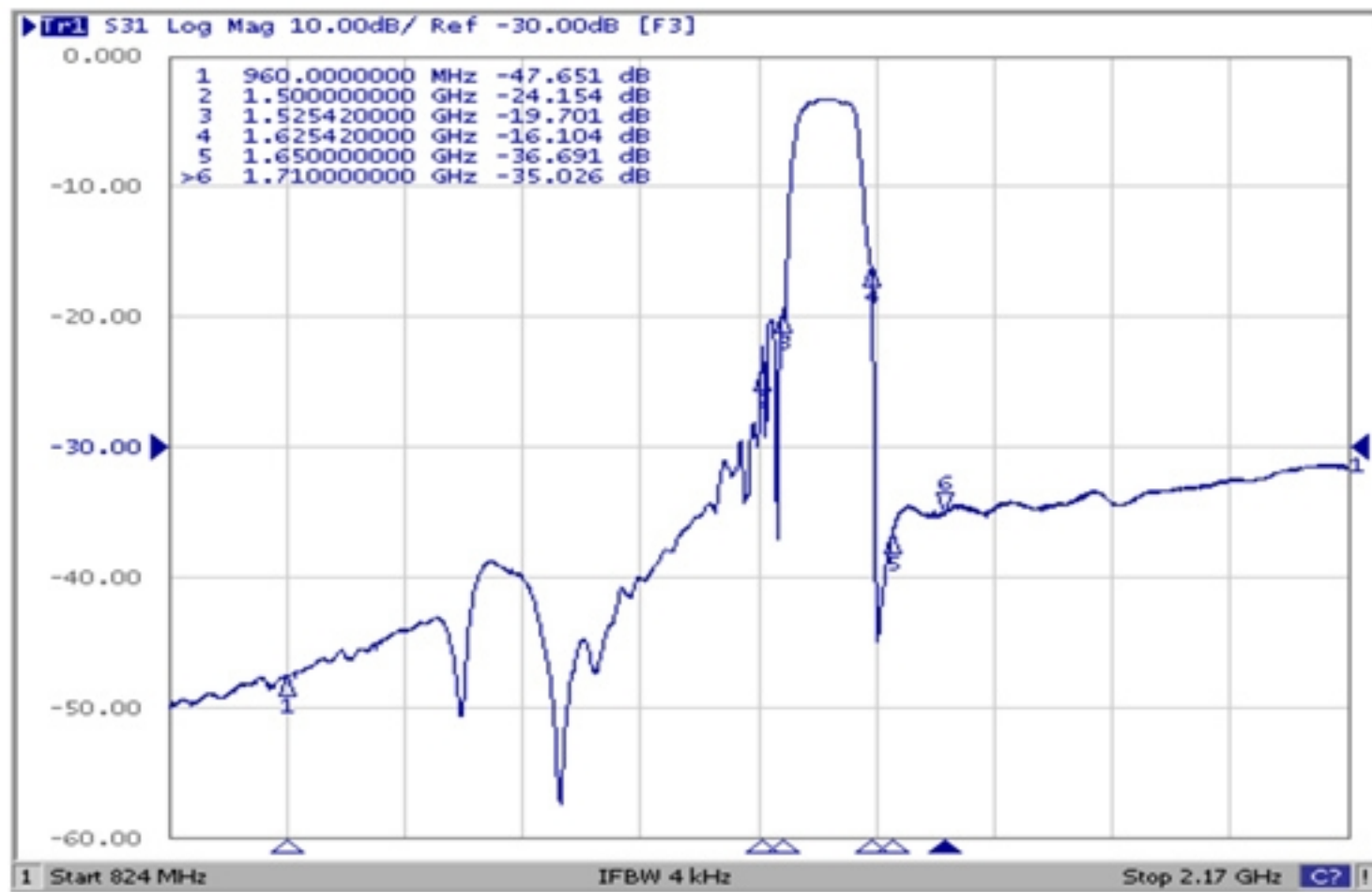


D. Frequency Characteristics:

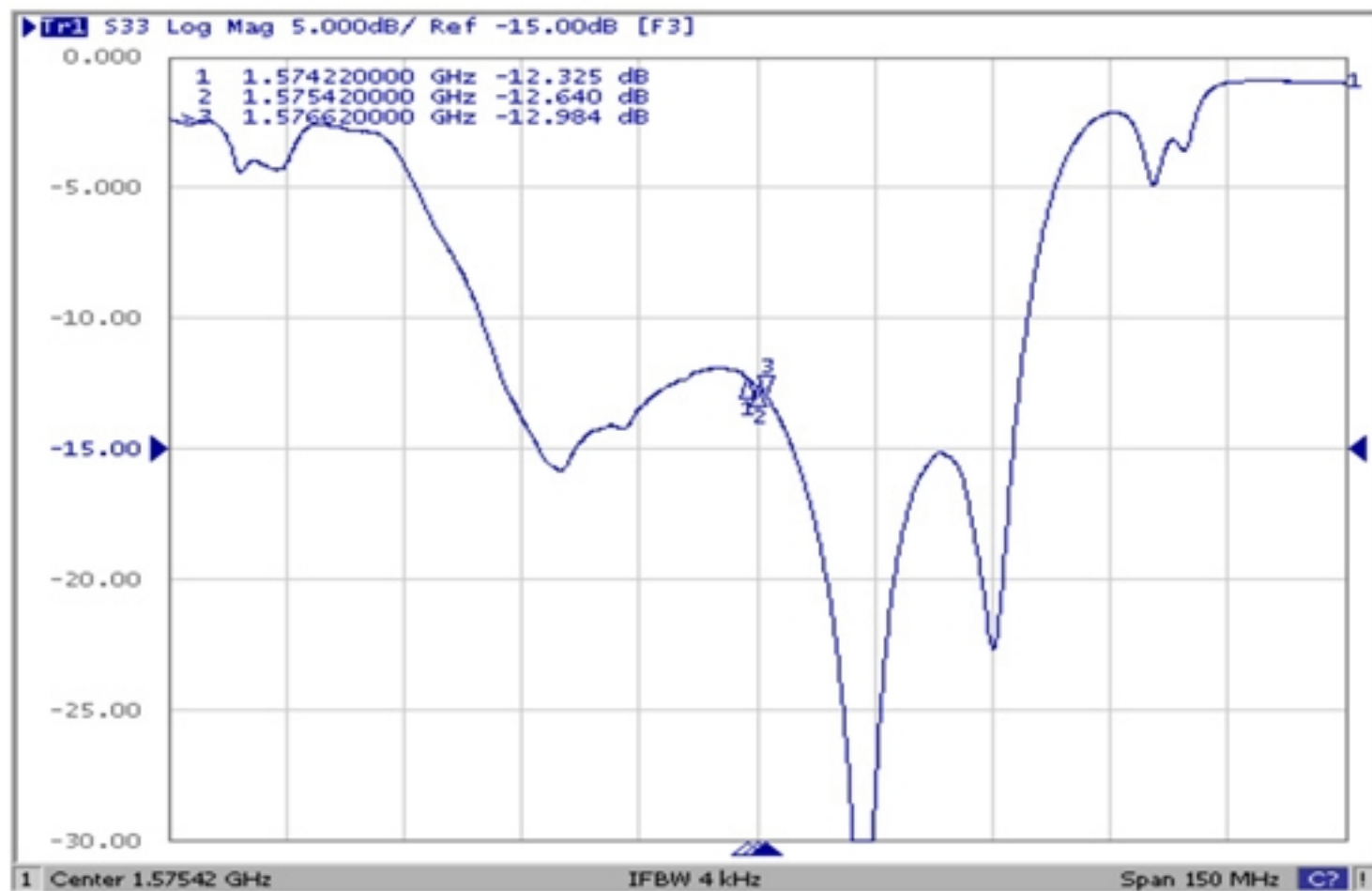
L1 Band GPS _ Characteristic



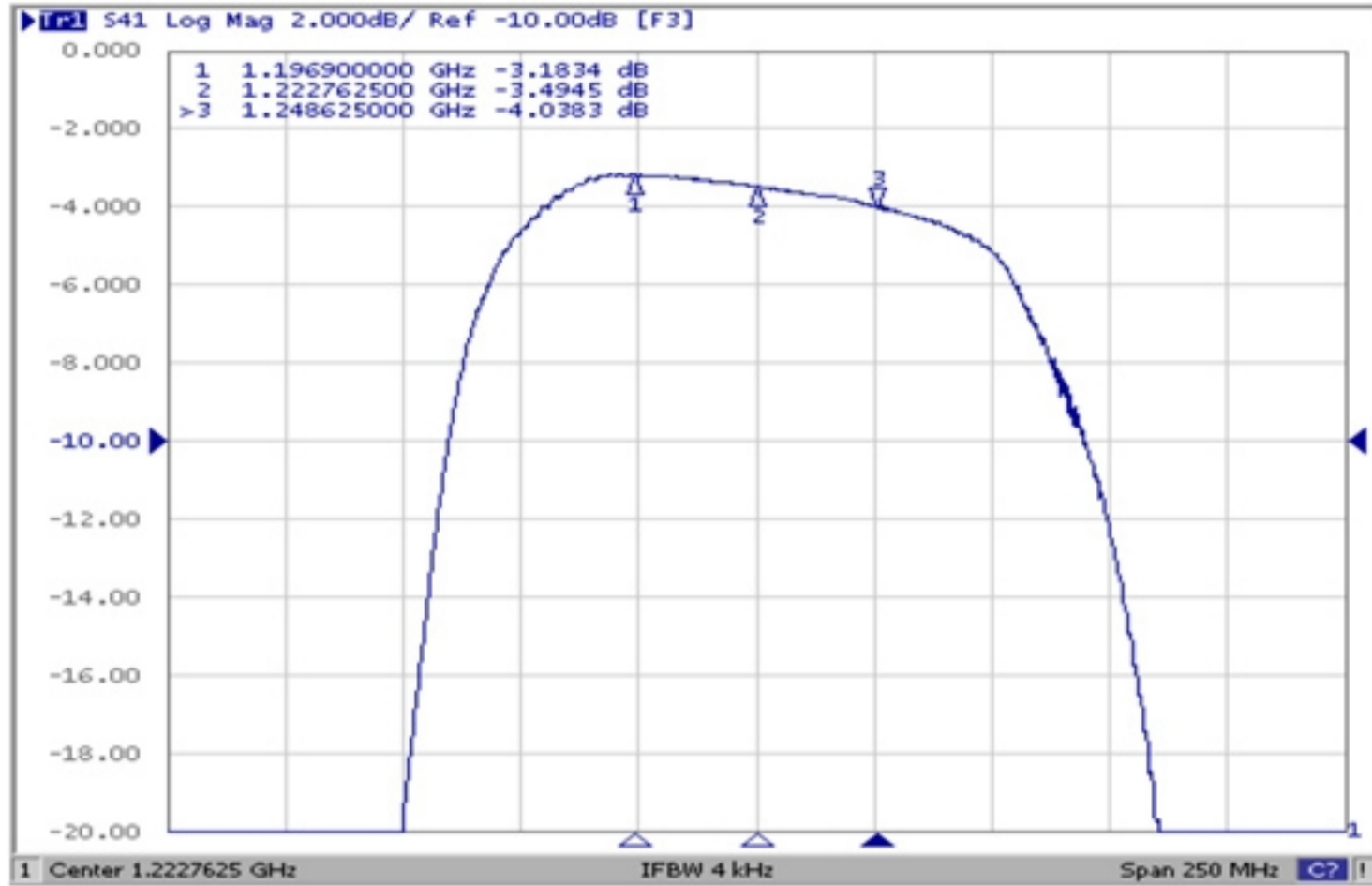
L1 Band GPS _ Characteristic (wideband)



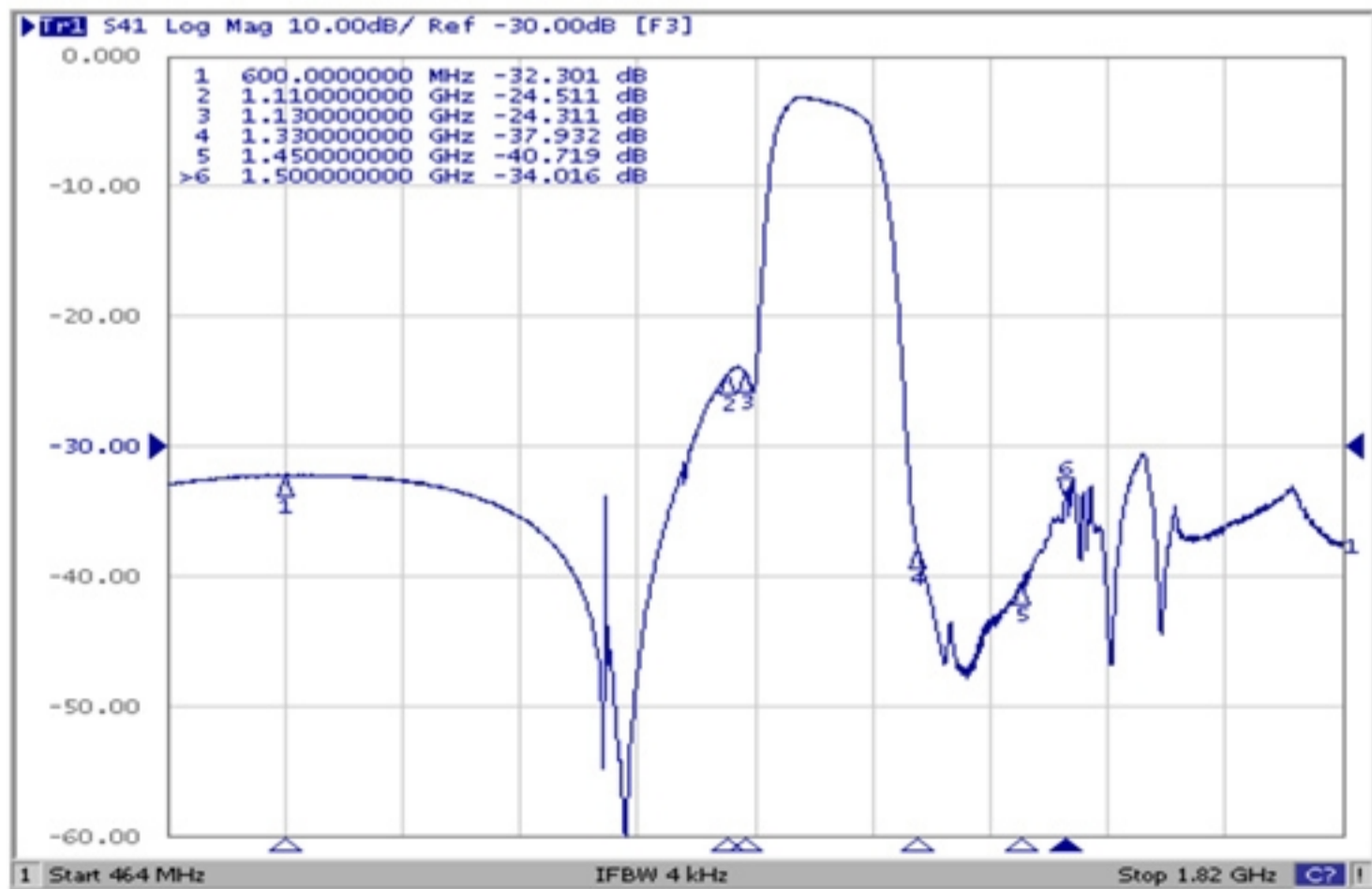
L1 Band GPS _ Return loss



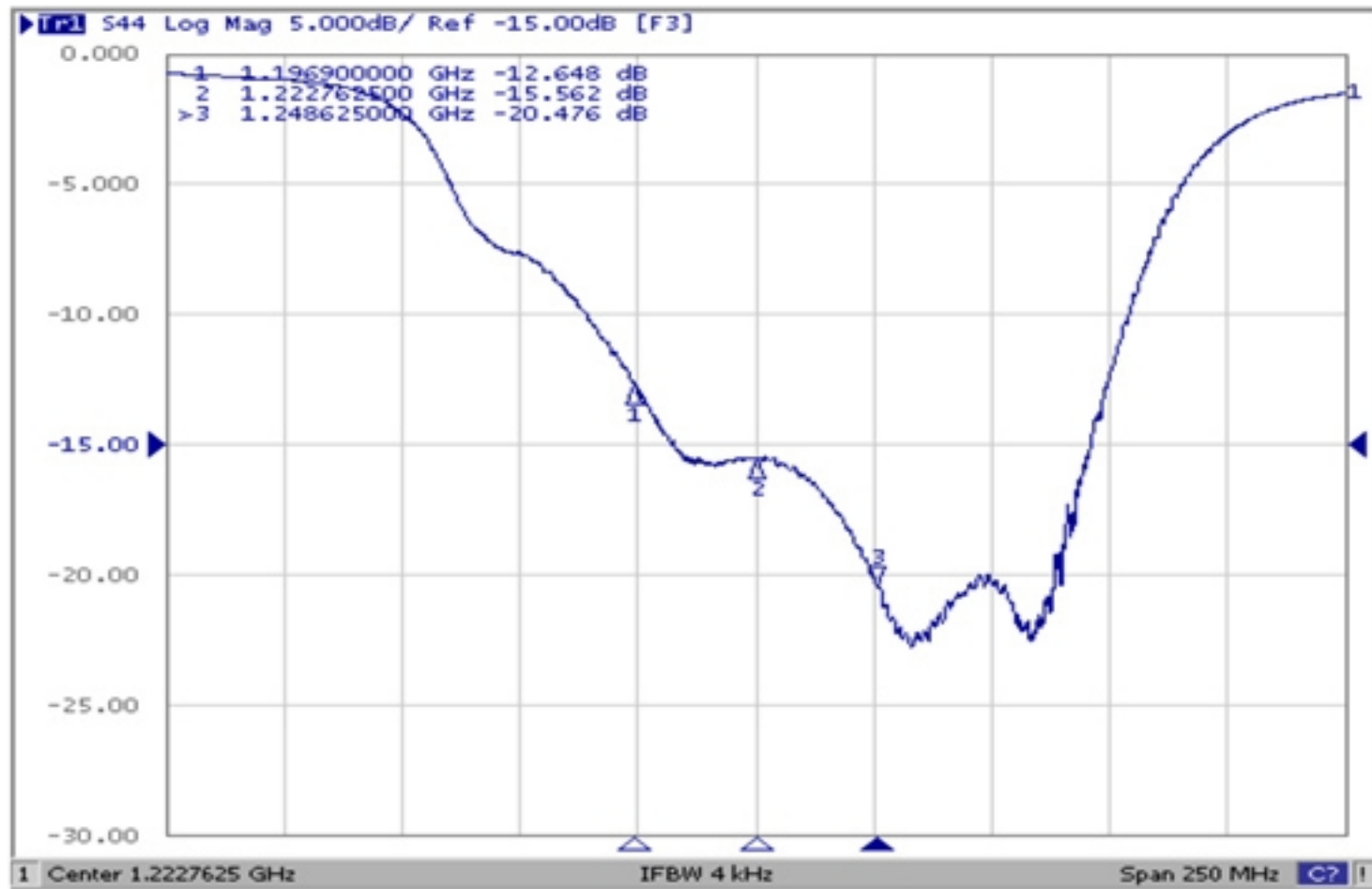
GLONASS L2 and Beidou B2 _ Characteristic



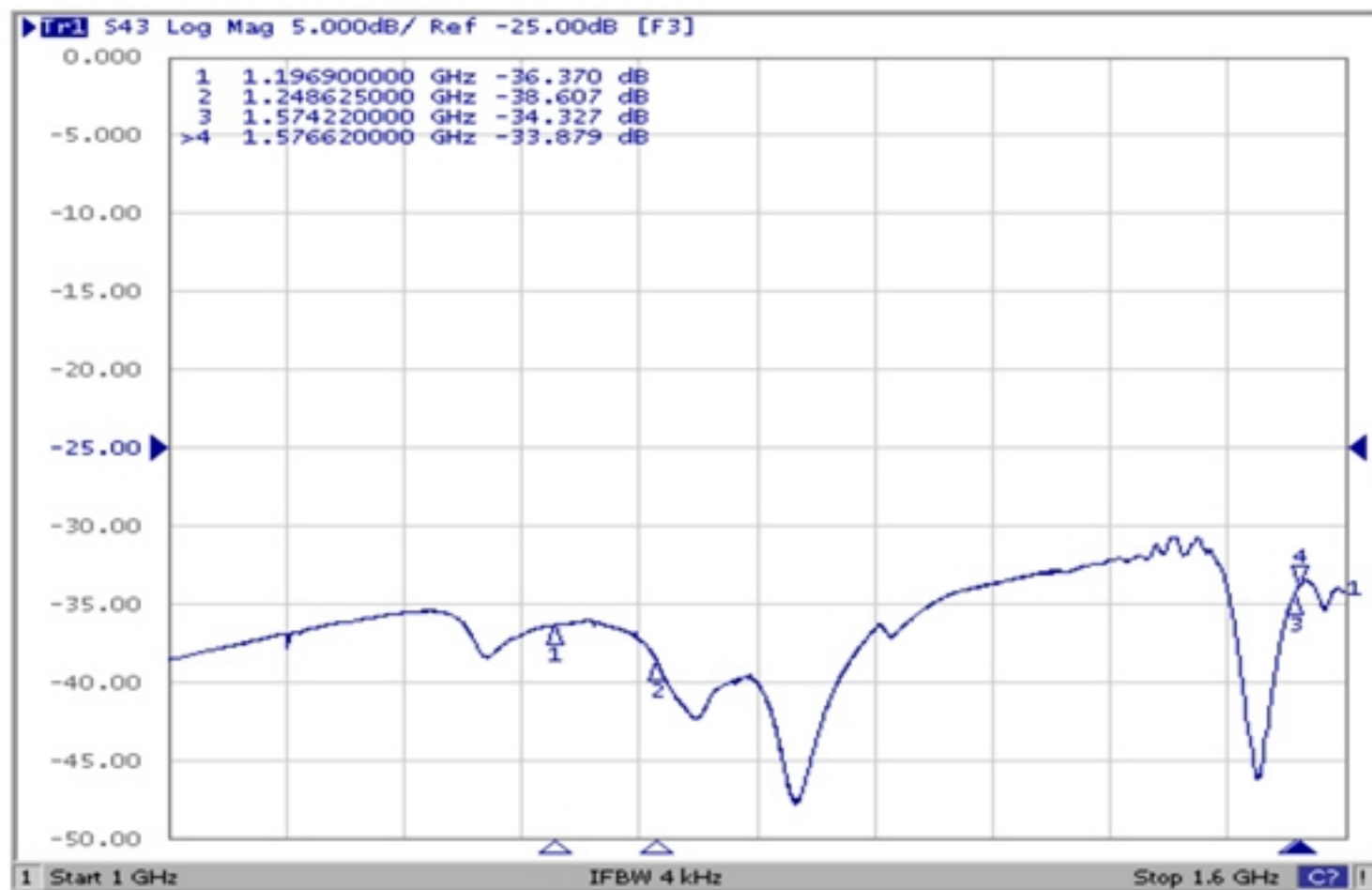
GLONASS L2 and Beidou B2 _ Characteristic (wideband)



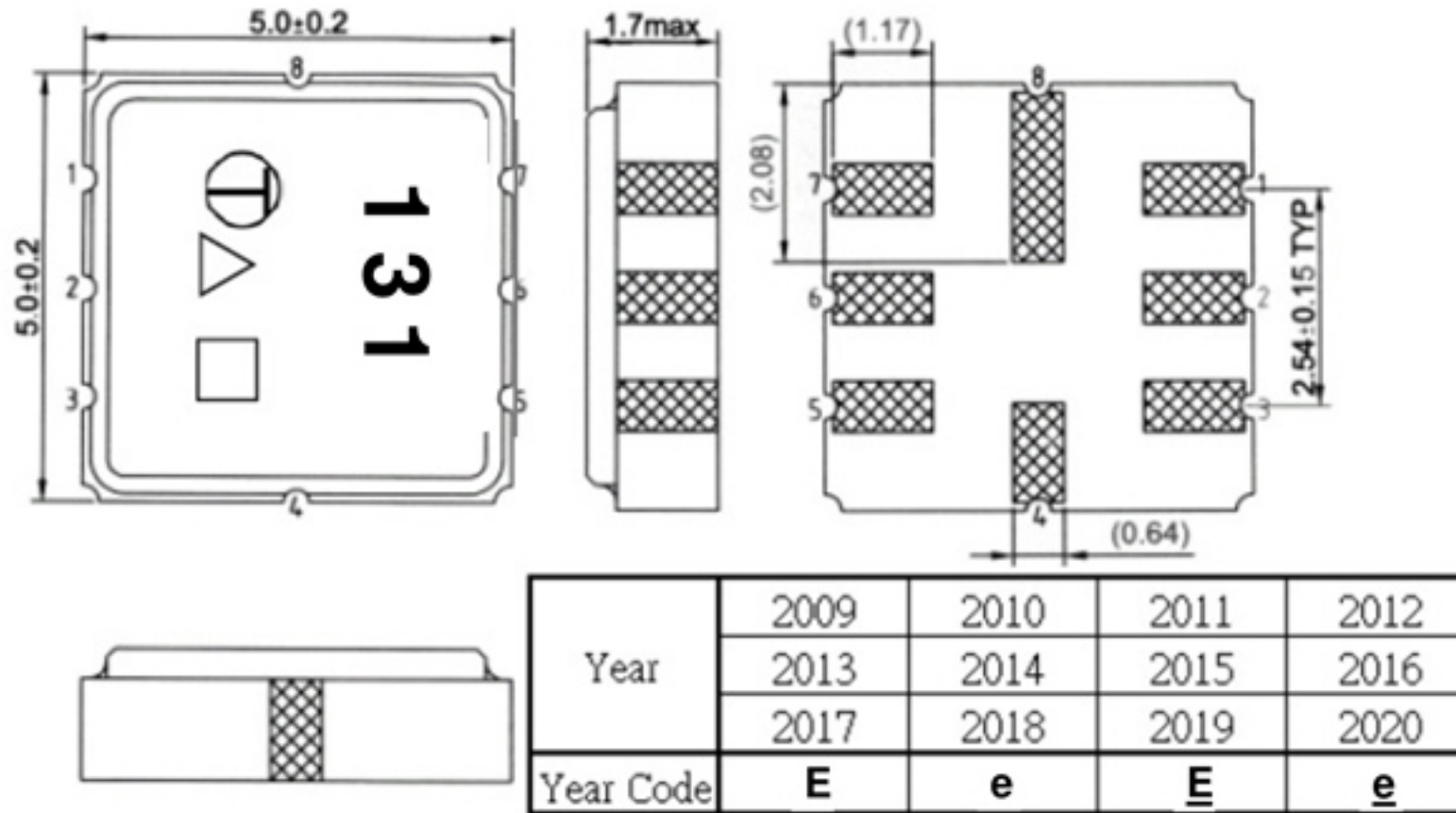
GLONASS L2 and Beidou B2 _ Return loss



L1 Band GPS - GLONASS L2 and Beidou B2_Isolation



E. OUTLINE DRAWING:



#2: Input

#5: Band 2 Output

#7: Band 1 Output

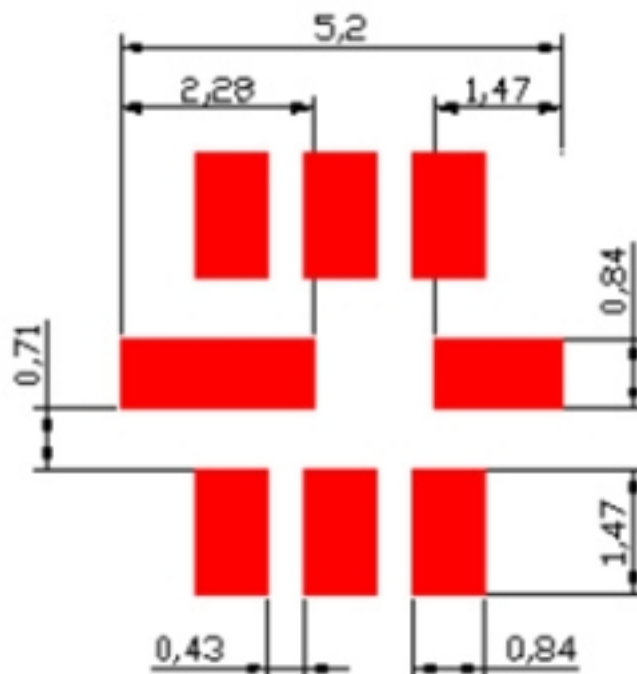
#4, 8: Case Ground

#1, 3, 6: Ground

Unit: mm

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

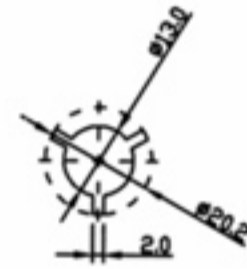
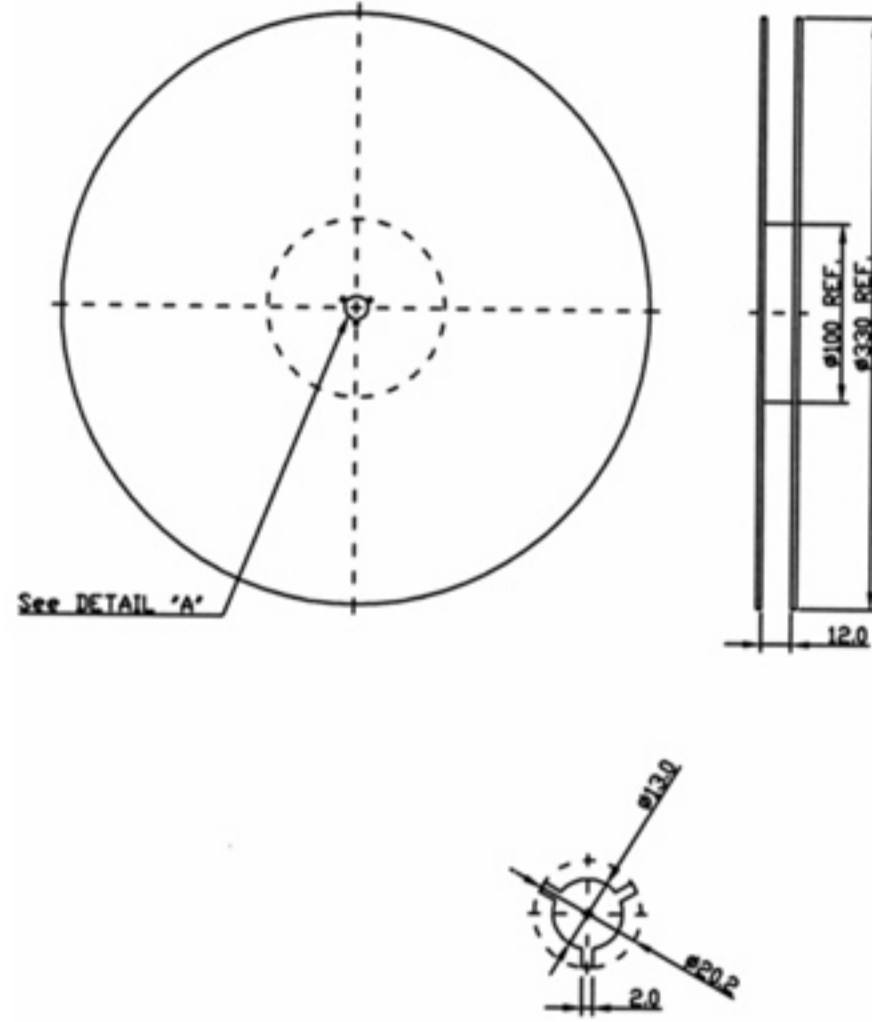
F. OUTLINE DRAWING:



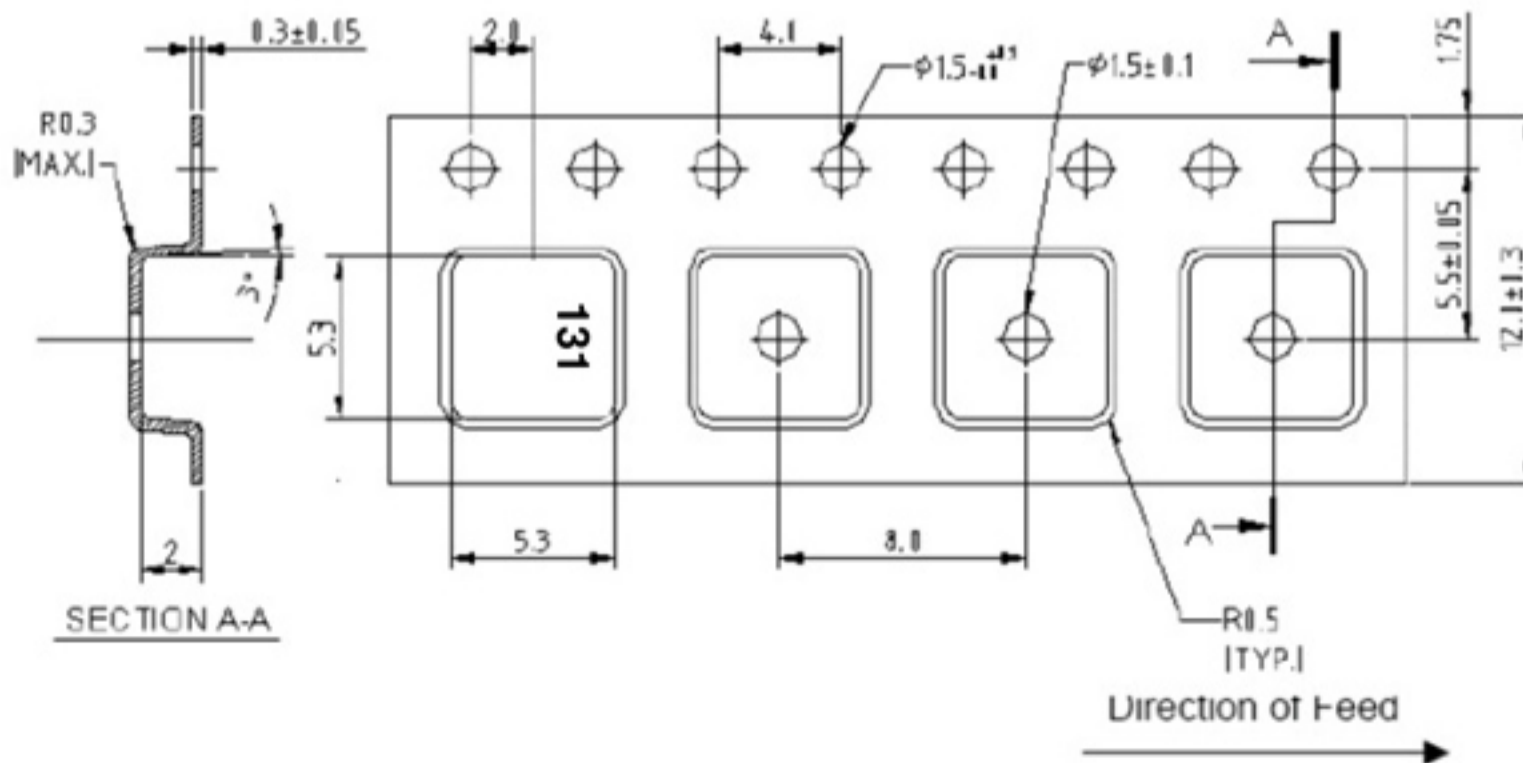
G. PACKING: (Ref. WI-75M03)

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 $60\sim 90$ seconds.
2. Ascending time to preheating temperature 150°C shall be 30 seconds min.
3. Heating shall be fixed at 220°C for $50\sim 80$ seconds and at $260^{\circ}\text{C} +0/-5^{\circ}\text{C}$ peak ($20\sim 40$ sec).
4. Time: 2 times.

