Dual Band SAW Filter 1223/1582.5 MHz SMD 3.0X3.0 mm(BW 52/47MHz)

MODEL NO.:TE0151A REV. NO.:1.0

RoHS Compliant

Lead-free soldering

Electrostatic **S**ensitive **D**evice

A. MAXIMUM RATING:

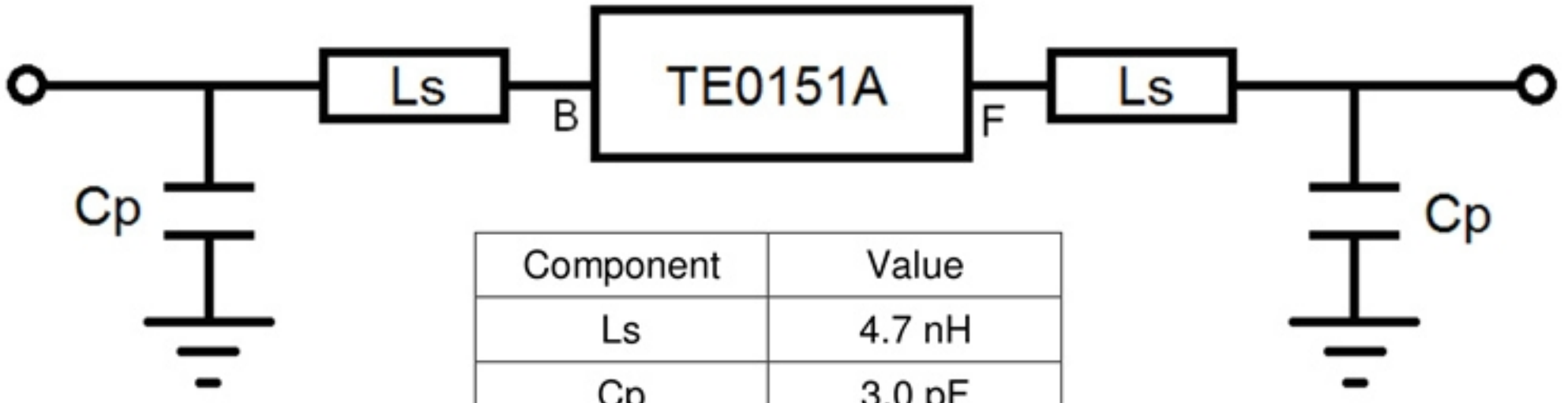
1. Input Power Level: 15 dBm
2. DC voltage: 3 V
3. Operating Temperature: -40℃ to +85℃
4. Storage Temperature: -40℃ to +85℃
5. Moisture Sensitivity Level: Level 1 (MSL1)

B. ELECTRICAL CHARACTERISTICS:

Item	Unit	Min.	Typ.	Max.
L2 Band				
Center frequency	MHz	-	1223	-
Insertion Loss (1197 ~ 1249 MHz)	dB	-	3.0	3.5
VSWR (1197 ~ 1249 MHz)	-	-	2.0	2.5
Amplitude Ripple p-p (1197 ~ 1249 MHz)	dB	-	1.1	1.5
Group Delay Ripple				
1196.0 ~ 1250.0 MHz	ns	-	8.8	17.0
1196.9 ~ 1217.4 MHz	ns	-	6.3	17.0
1197.4 ~ 1205.1 MHz	ns	-	2.1	15.0
1205.0 ~ 1209.2 MHz	ns	-	2.2	10.0
1227.0 ~ 1228.2 MHz	ns	-	1.5	17.0
1242.4 ~ 1249.2 MHz	ns	-	5.1	17.0
L1 Band				
Center frequency	MHz	-	1582.5	-
Insertion Loss (1559 ~ 1606 MHz)	dB	-	3.6	4.2
VSWR (1559 ~ 1606 MHz)	-	-	1.5	2.5
Amplitude Ripple p-p (1559 ~ 1606 MHz)	dB	-	0.6	1.5
Group Delay Ripple				
1559.0 ~ 1563.2	ns	-	5.9	11.0
1559.0 ~ 1606.0	ns	-	3.8	11.0
1573.3 ~ 1577.5	ns	-	2.6	7.0
1587.6 ~ 1591.8	ns	-	2.5	7.0
1597.6 ~ 1605.9	ns	-	2.3	11.0

Attenuation (reference level from 0 dB)				
10 ~ 600 MHz	dB	40	45	-
600 ~ 1000 MHz	dB	32	41	-
1000 ~ 1120 MHz	dB	25	35	-
1120 ~ 1160 MHz	dB	14	31	-
1285 ~ 1305 MHz	dB	18	36	-
1305 ~ 1500 MHz	dB	21	28	-
1500 ~ 1525 MHz	dB	15	27	-
1645 ~ 1650 MHz	dB	23	38	-
1650 ~ 2000 MHz	dB	26	31	-
Temperature Coefficient of Frequency	ppm/K	-	-36	-

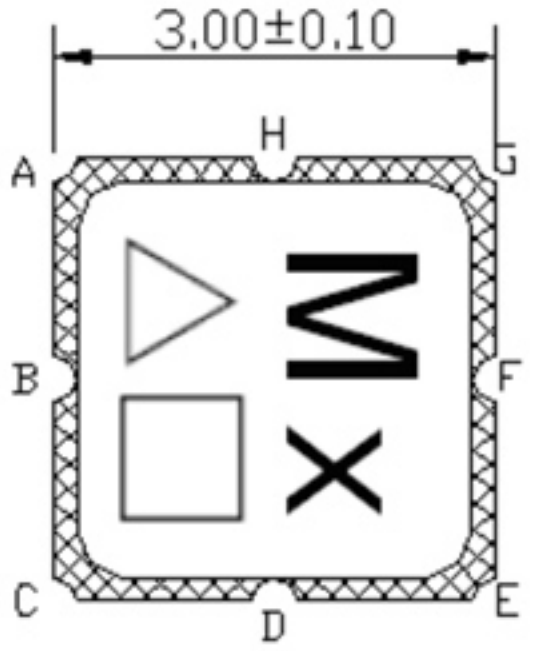
C. MEASUREMENT CIRCUIT:



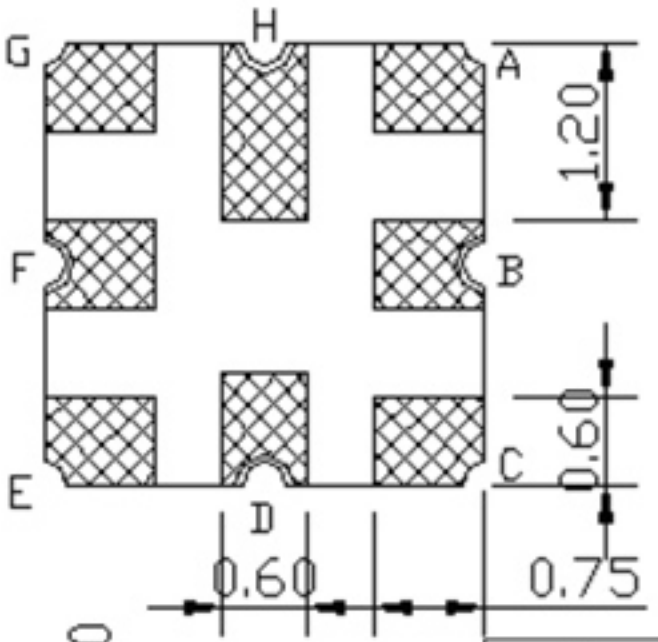
Component	Value
Ls	4.7 nH
Cp	3.0 pF

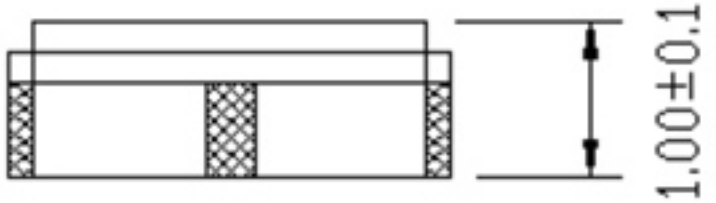
D. OUTLINE DRAWING:

Top View



Bottom View





A	Ground
B	Input
C	Ground
D	Ground
E	Ground
F	Output
G	Ground
H	Ground

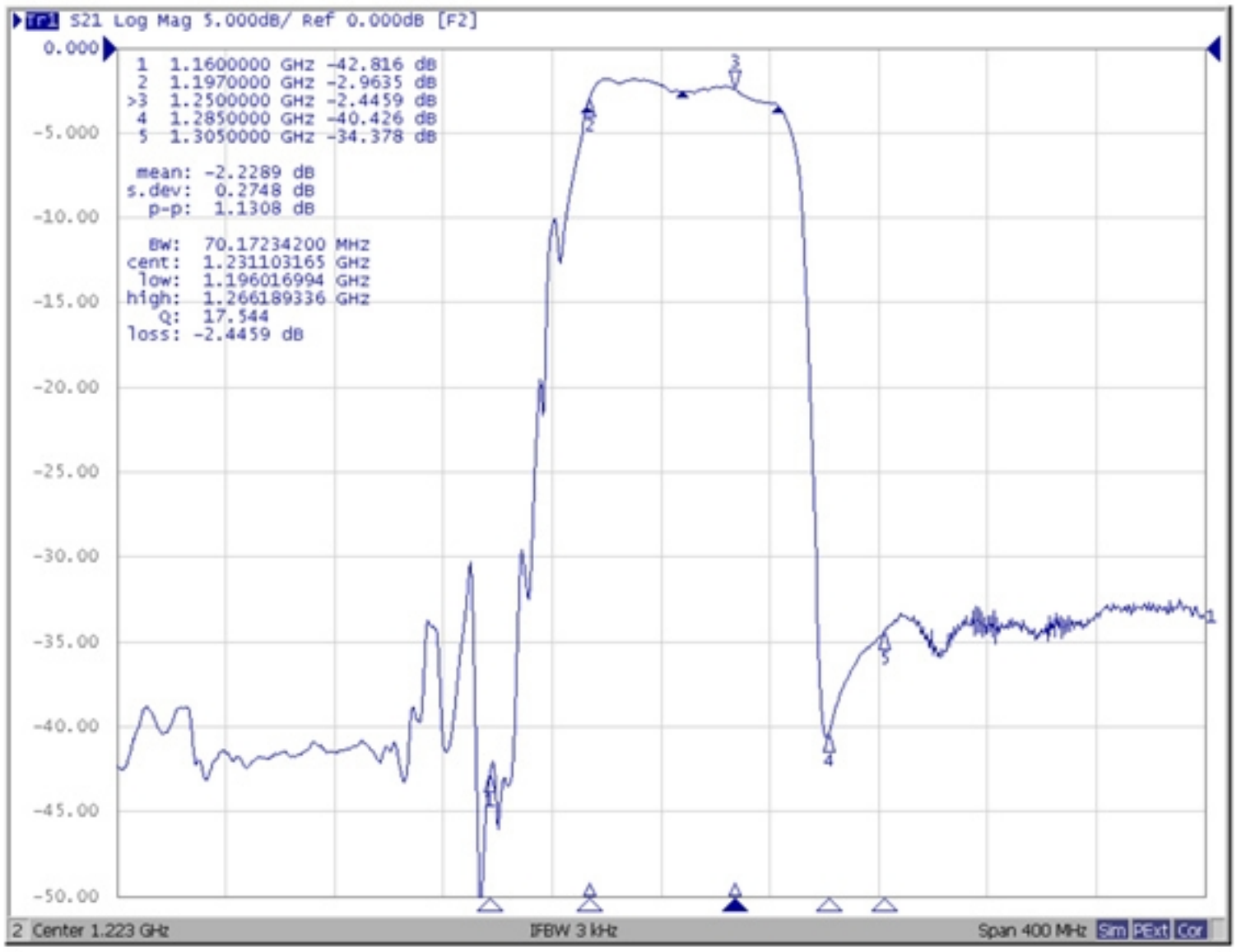
Δ: Year Code (2019→9, 2020→0 ... 2029→9)

□: Date Code (Follow the table from planner)

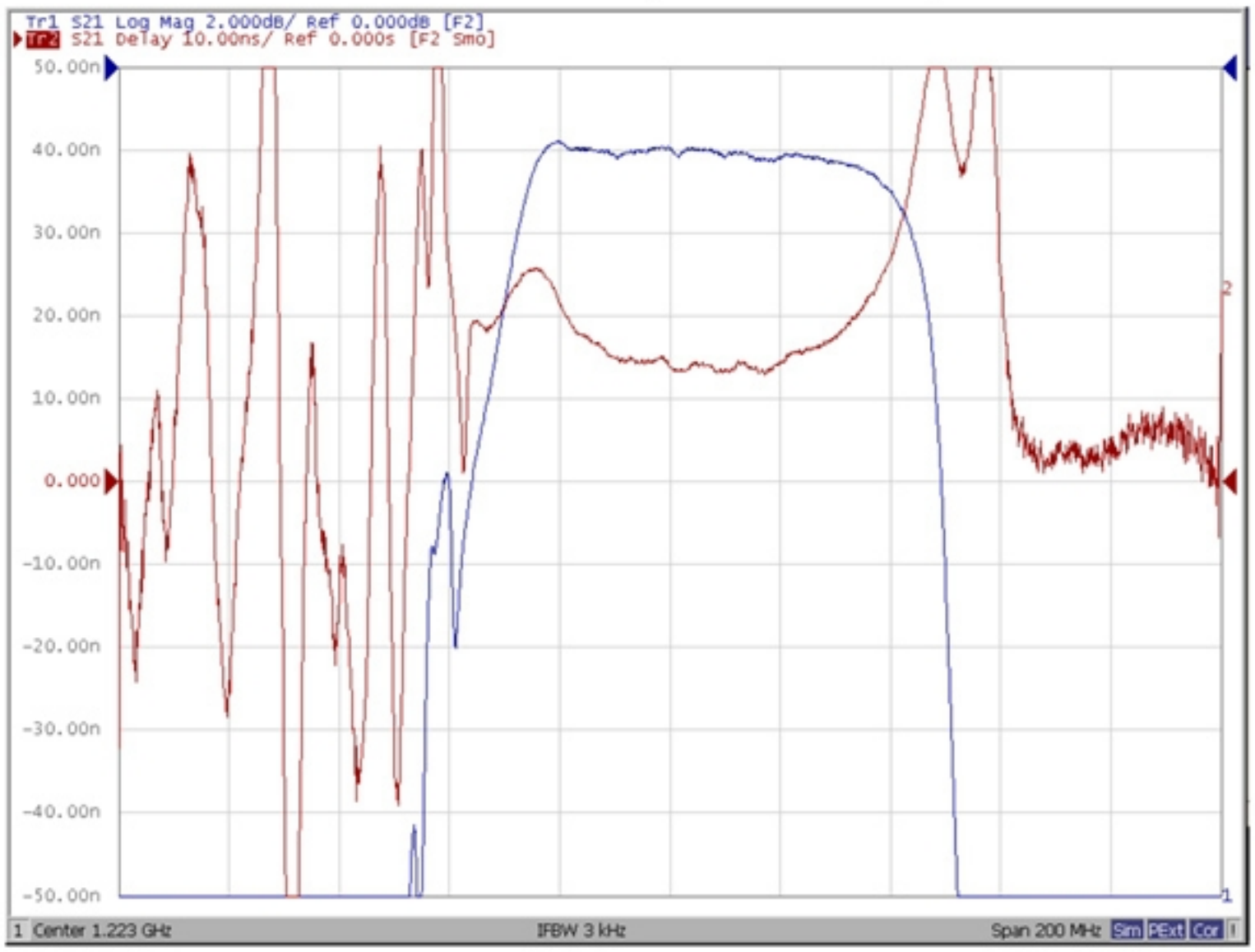
WK01	WK02	WK03	WK04	WK05	WK06	WK07	WK08	WK09	WK10	WK11	WK12	WK13
A	B	C	D	E	F	G	H	I	J	K	L	M
WK14	WK15	WK16	WK17	WK18	WK19	WK20	WK21	WK22	WK23	WK24	WK25	WK26
N	O	P	Q	R	S	T	U	V	W	X	Y	Z
WK27	WK28	WK29	WK30	WK31	WK32	WK33	WK34	WK35	WK36	WK37	WK38	WK39
a	b	c	d	e	f	g	h	i	j	k	l	m
WK40	WK41	WK42	WK43	WK44	WK45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

E. Frequency Characteristics :

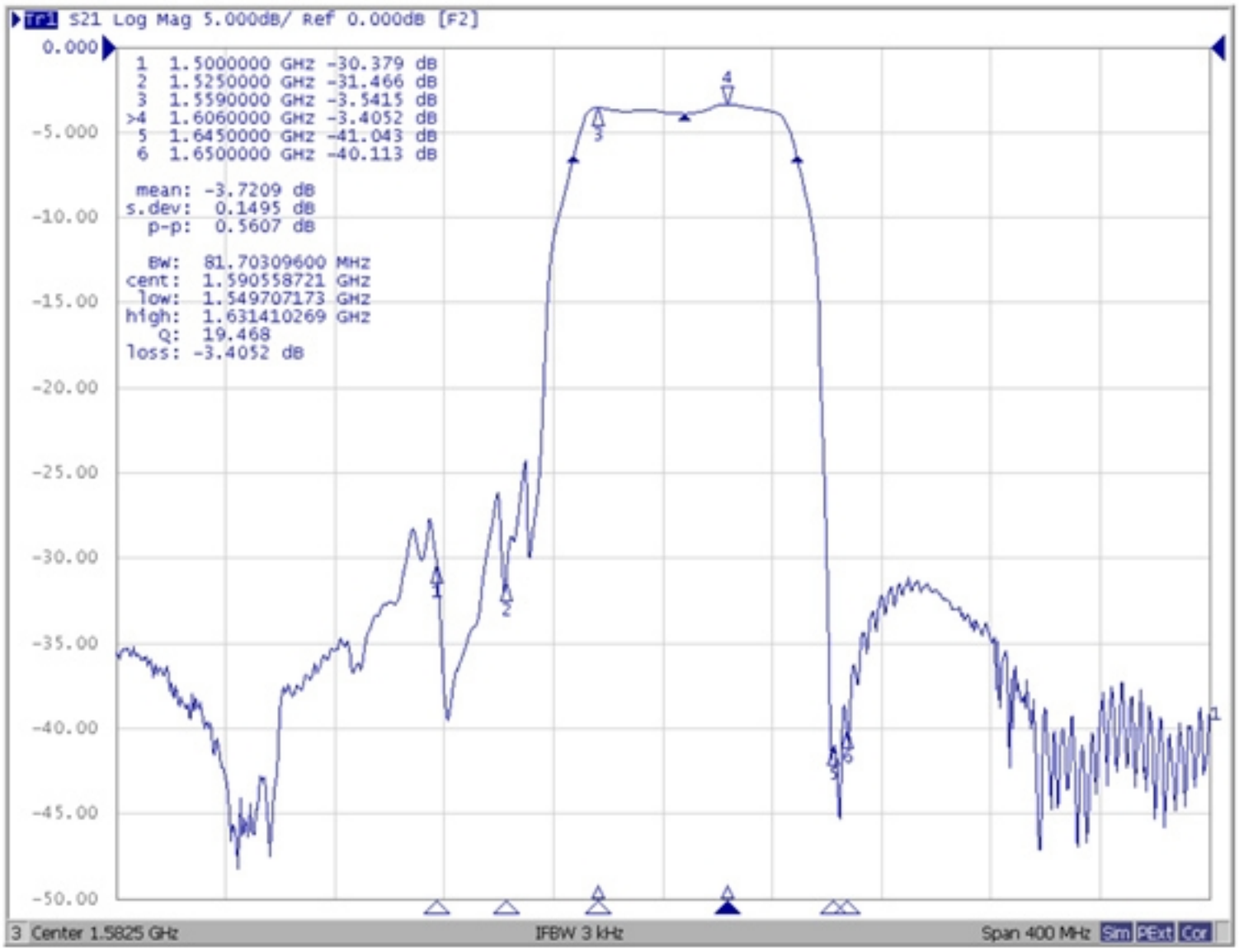
L2 Band (1223 MHz Filter)



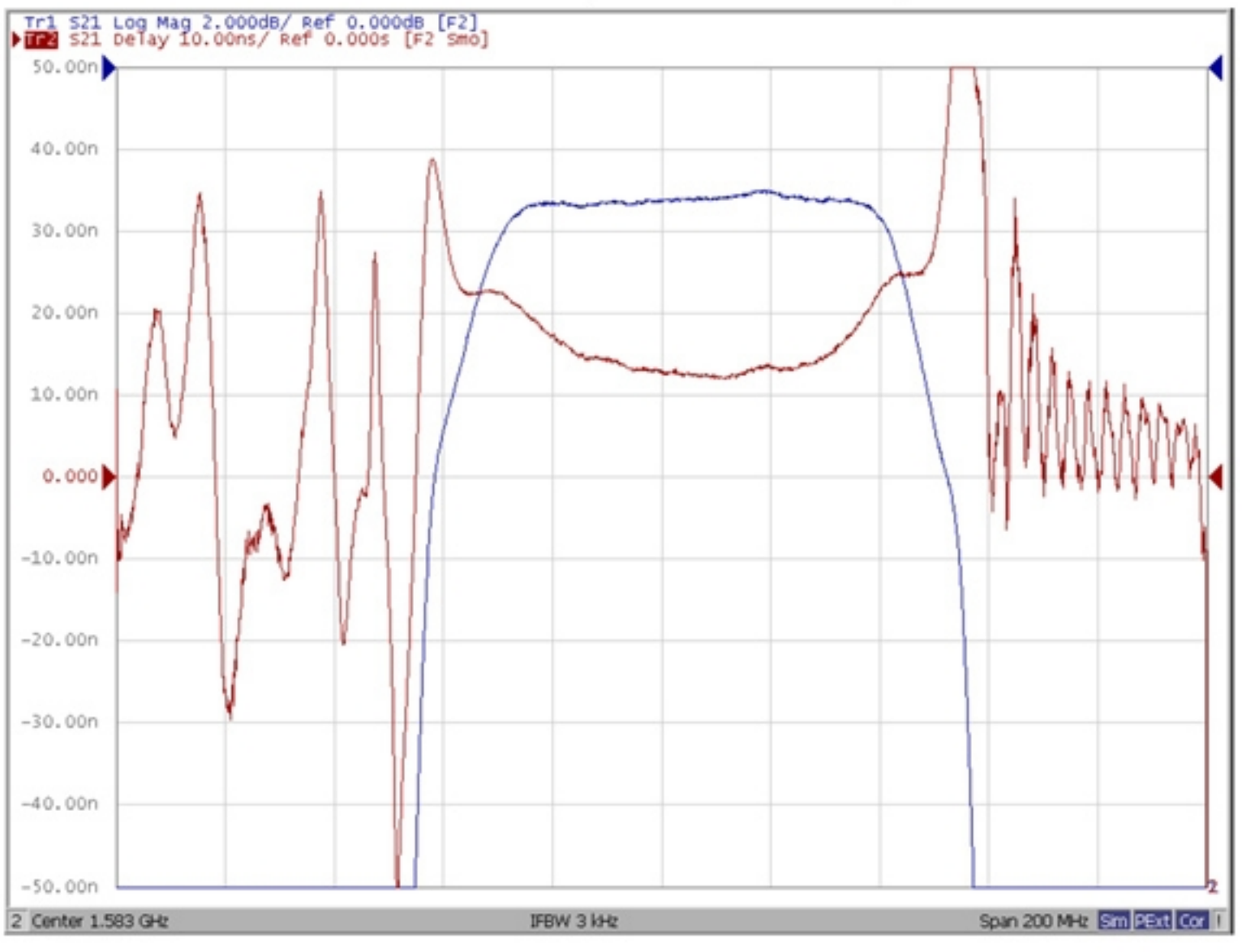
GDD L2 Band (1223 MHz Filter)



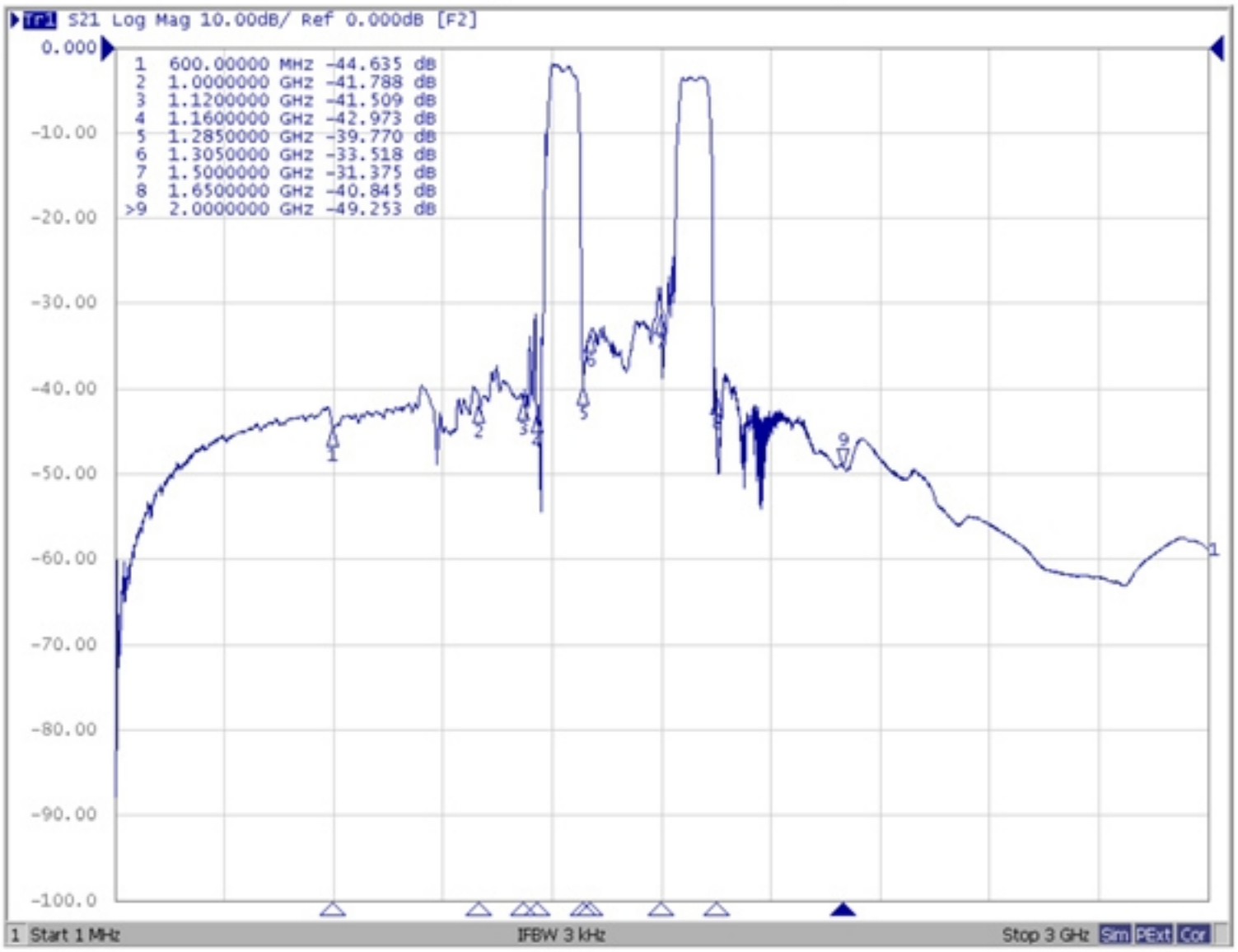
L1 Band (1582.5 MHz Filter)



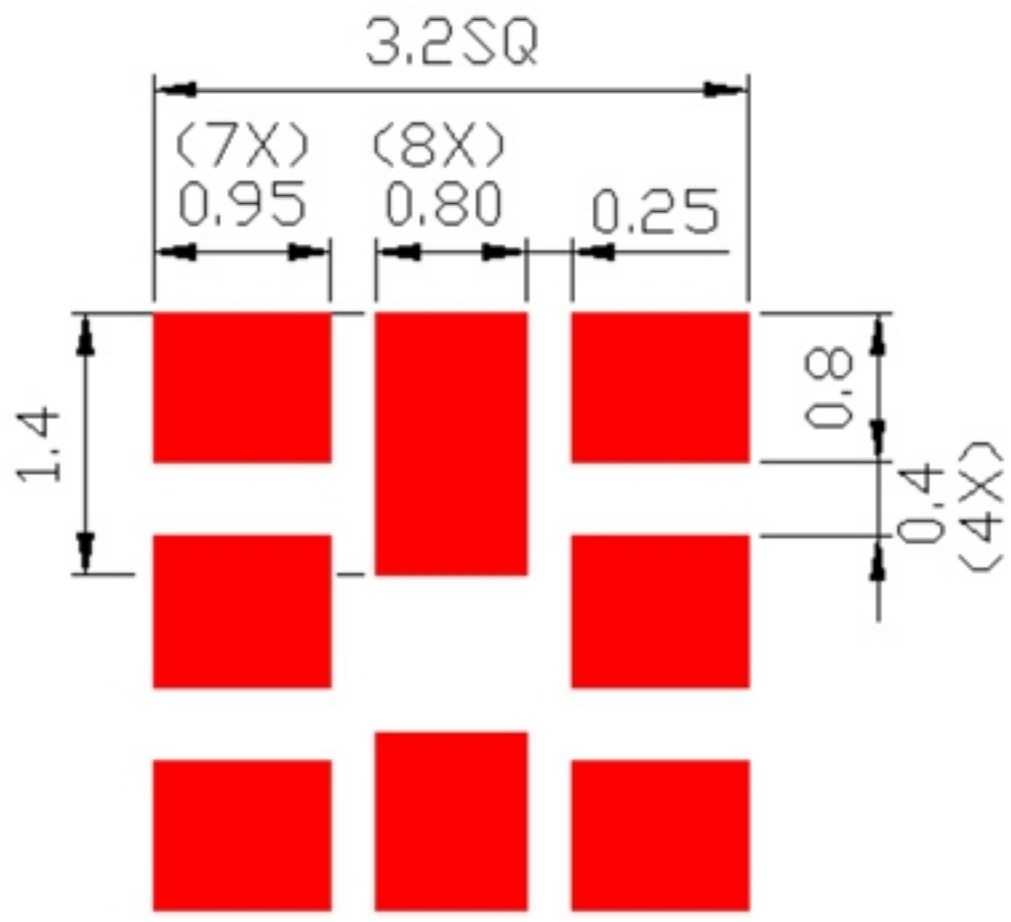
GDD L1 Band (1582.5 MHz Filter)



Rejection – Wide Range

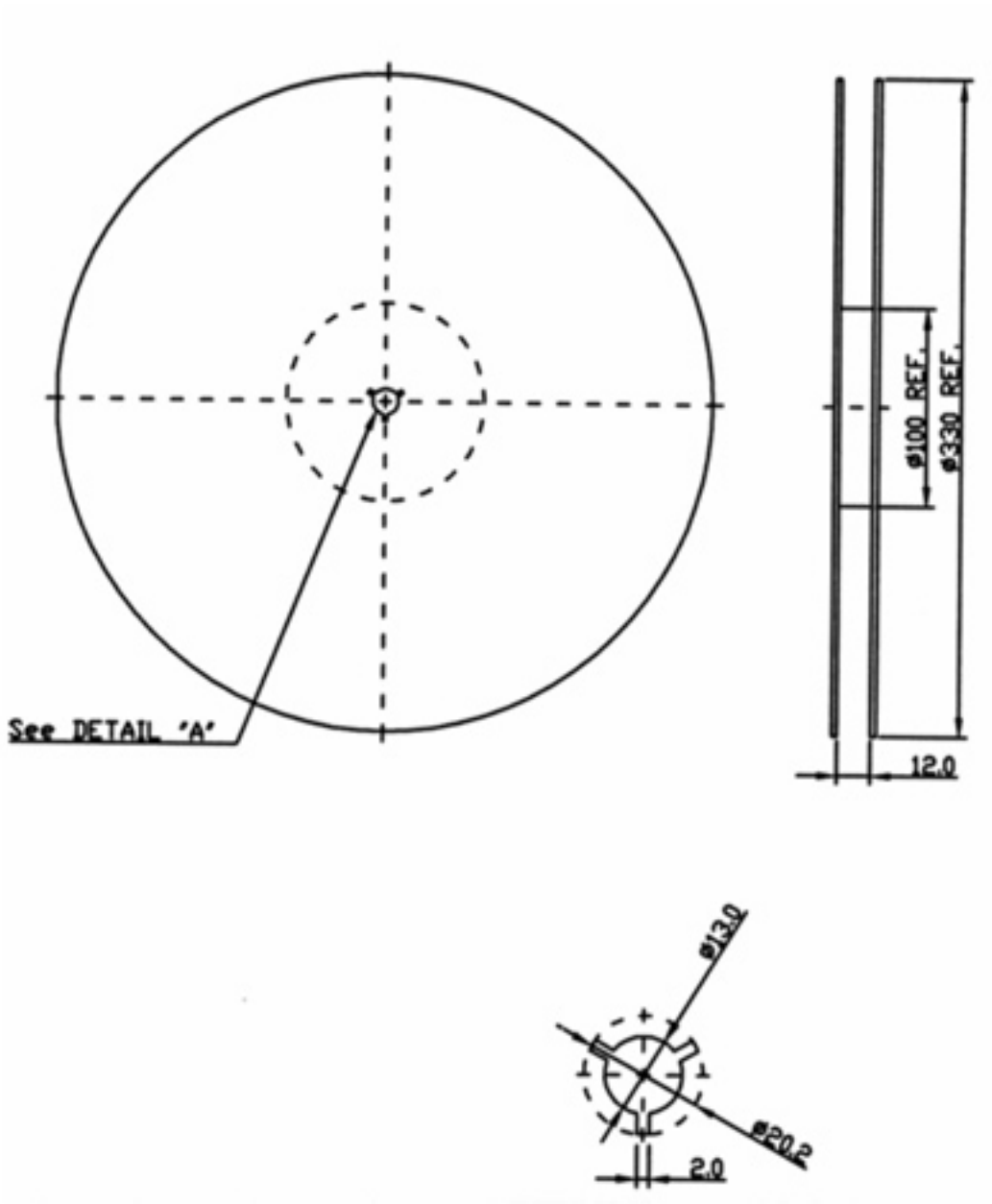


F. PCB FOOTPRINT:

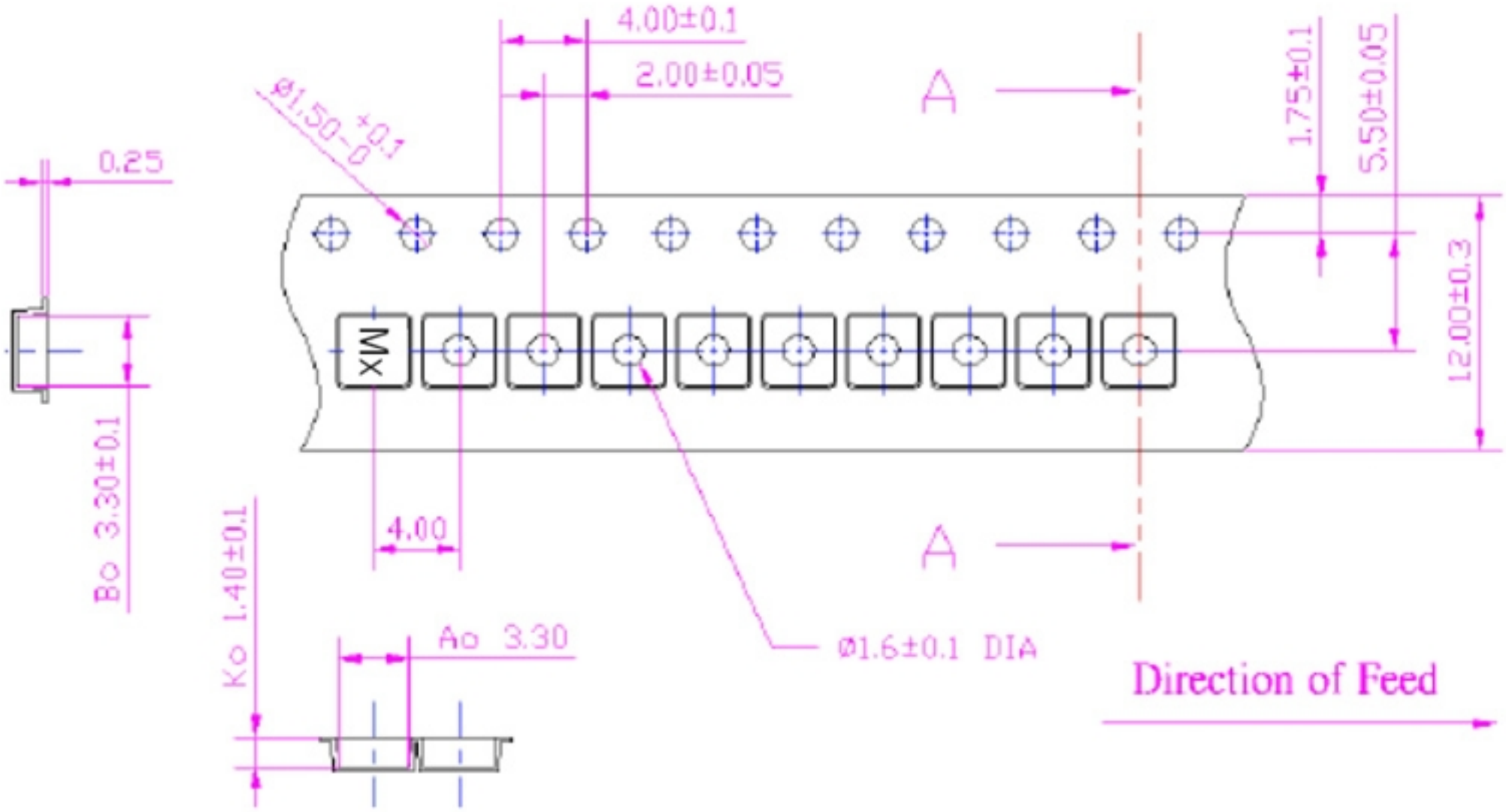


G. PACKING:

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