

SAW Filter 1950 MHz

MODEL NO.: TA1815B

REV. No.: 1.0

A. MAXIMUM RATING:

1. Maximum Input Power: 10 dBm
2. DC voltage: +/-5 V
3. Operating Temperature: -40 °C to +85 °C
4. Storage Temperature: -40 °C to +100 °C
5. Moisture Sensitivity Level: Level 1 (MSL 1)
6. ESD: 50 V(MM), 100 V(HBM)

RoHS Compliant

Lead-free soldering

Electrostatic Sensitive Device (ESD)

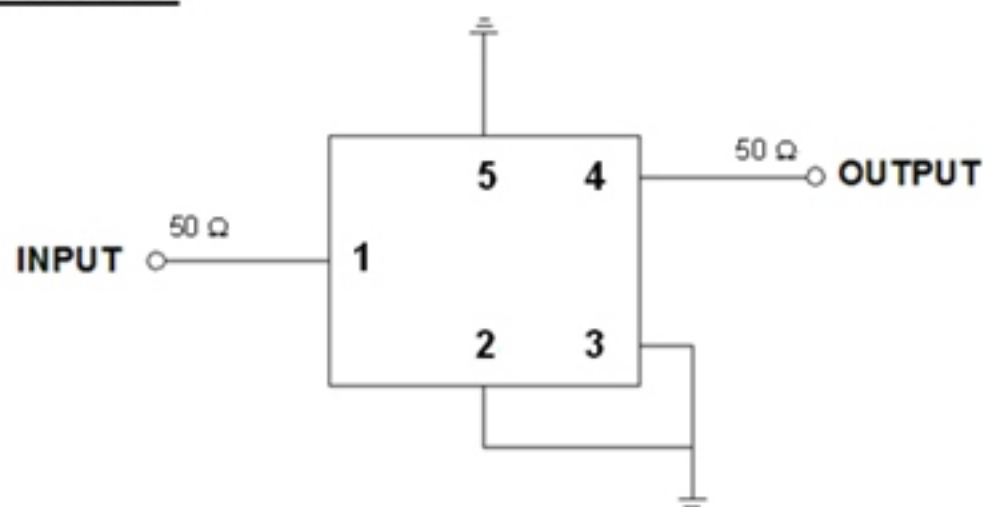
B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance: $Z_s = 50 \Omega$ (Single-ended)

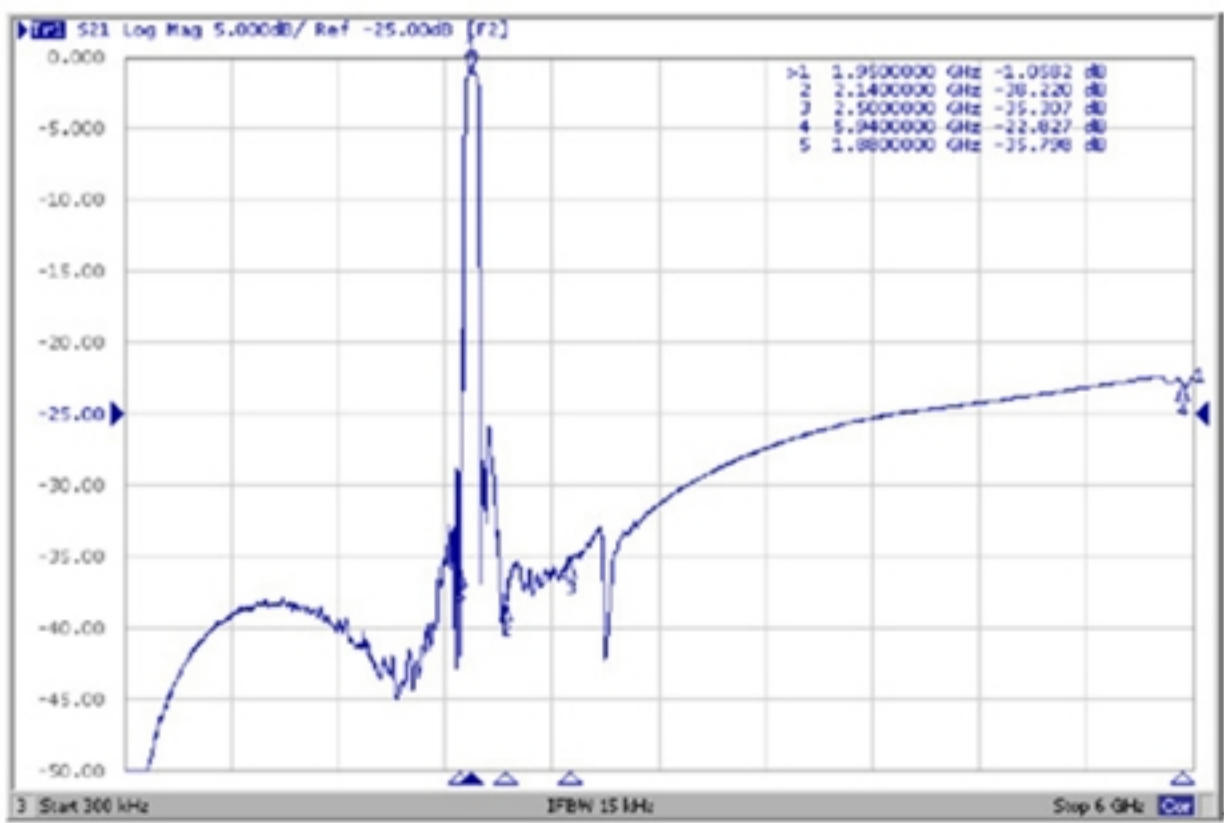
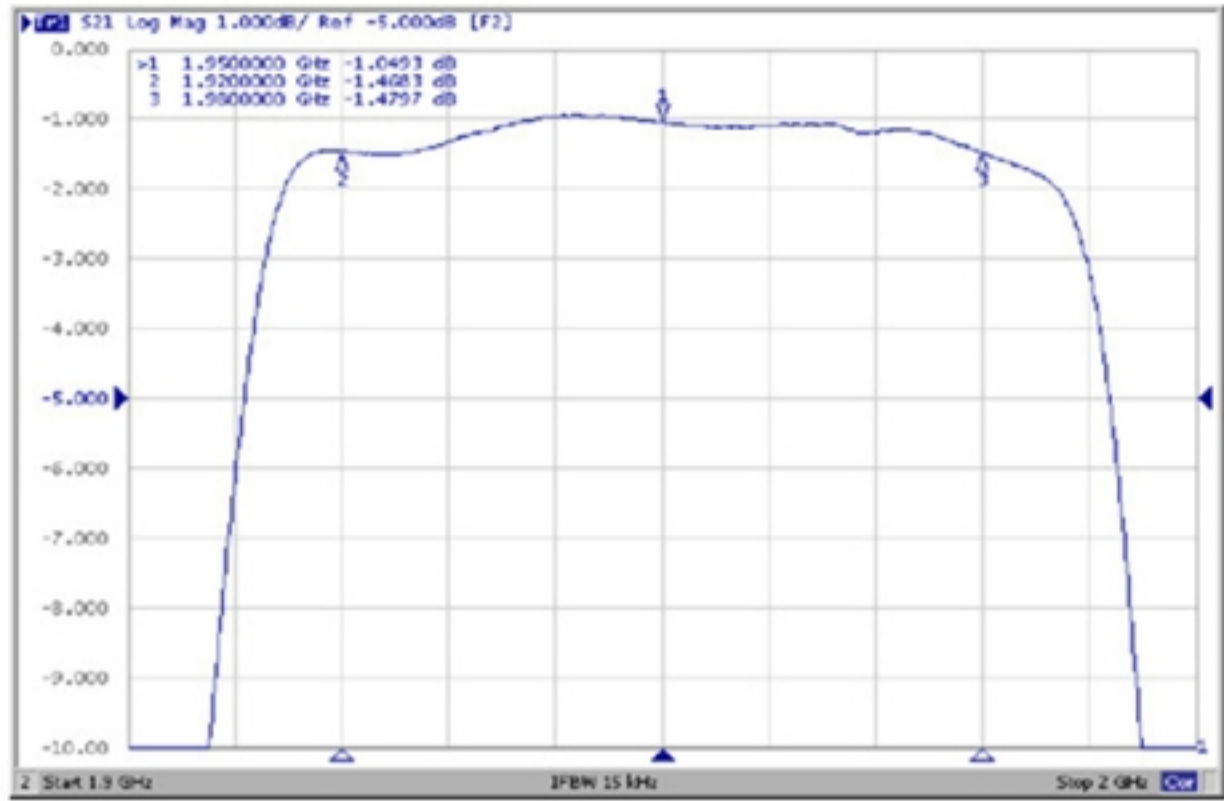
Terminating load impedance: $Z_L = 50 \Omega$ (Single-ended)

Parameters Description	Unit	Min.	Typ.	Max.
Center Frequency Fc	MHz	-	1950	-
Insertion Loss (1920~1980 MHz) IL	dB	-	1.8	2.5
Amplitude Ripple (1920~1980 MHz)	dB _{p-p}	-	0.8	2.0
VSWR (1920~1980 MHz)	-	-	1.8	2.3
Attenuation (Reference level from 0 dB)				
DC ~ 1577 MHz	dB	30	34	-
1577 ~ 1880 MHz	dB	22	29	-
2110 ~ 2170 MHz	dB	35	38	-
2500 ~ 3120 MHz	dB	28	33	-
3840 ~ 3960 MHz	dB	25	29	-
5760 ~ 5940 MHz	dB	15	22	-

C. MEASUREMENT CIRCUIT:

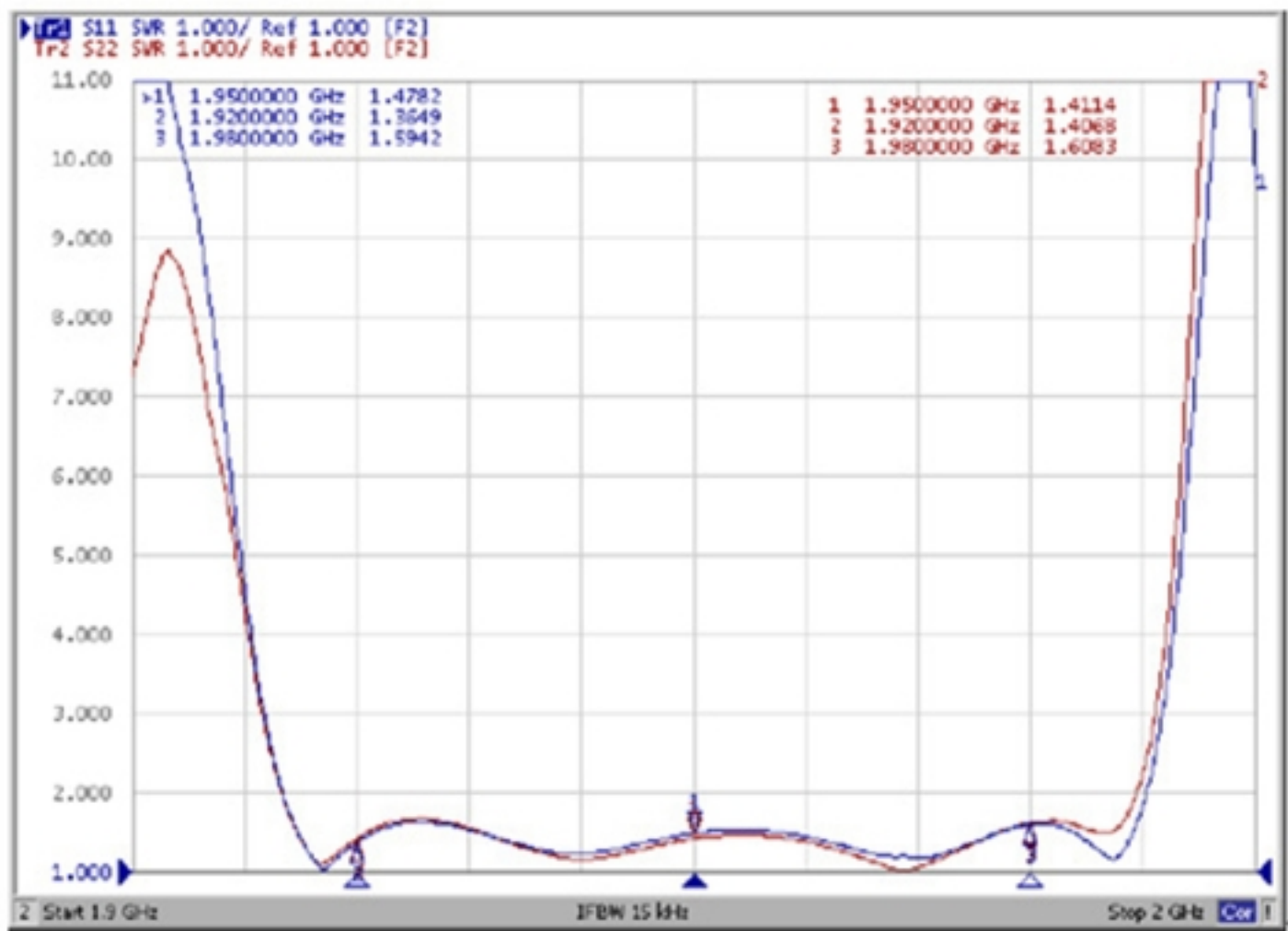


D. FREQUENCY CHARACTERISTIC:

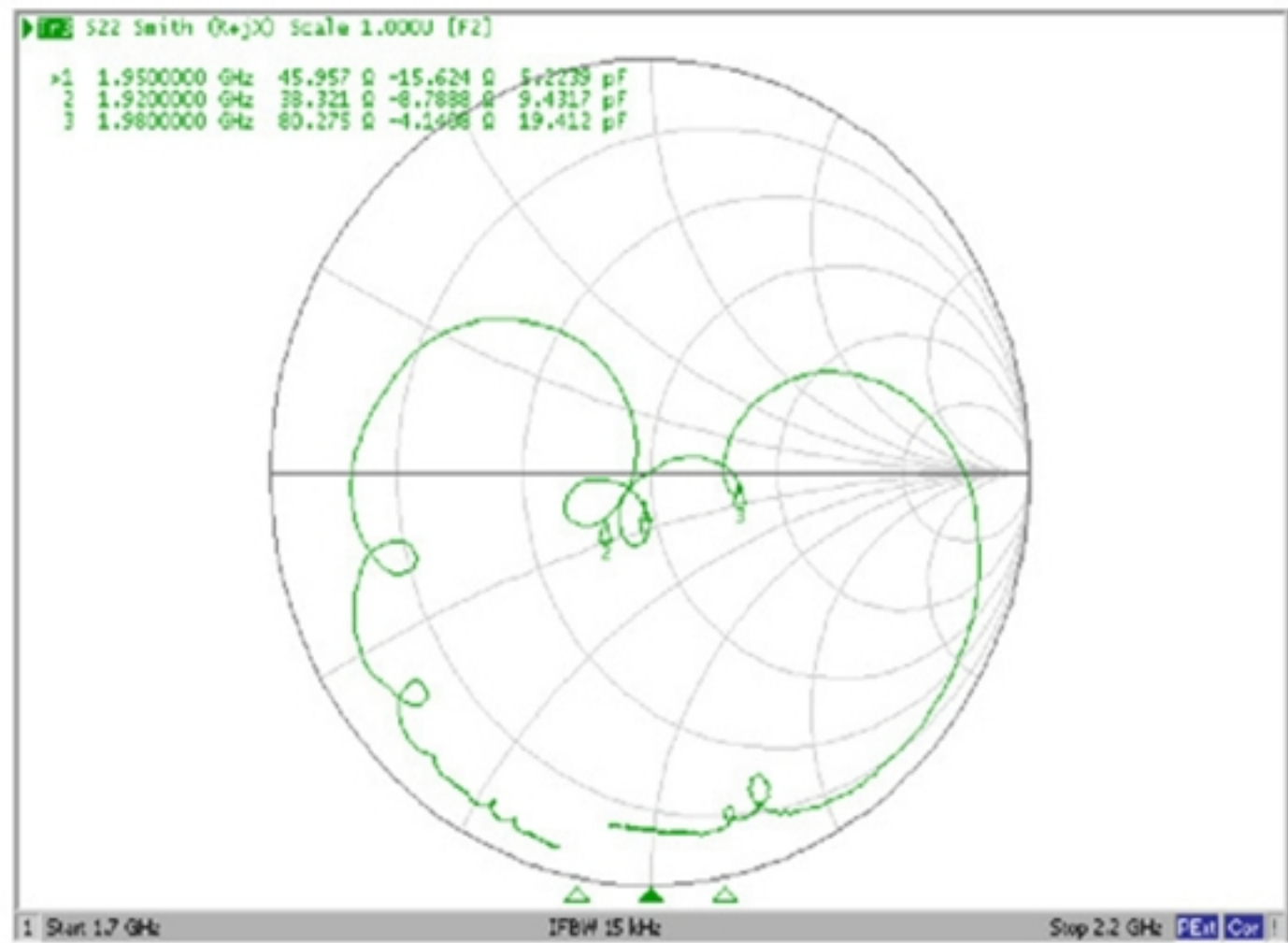
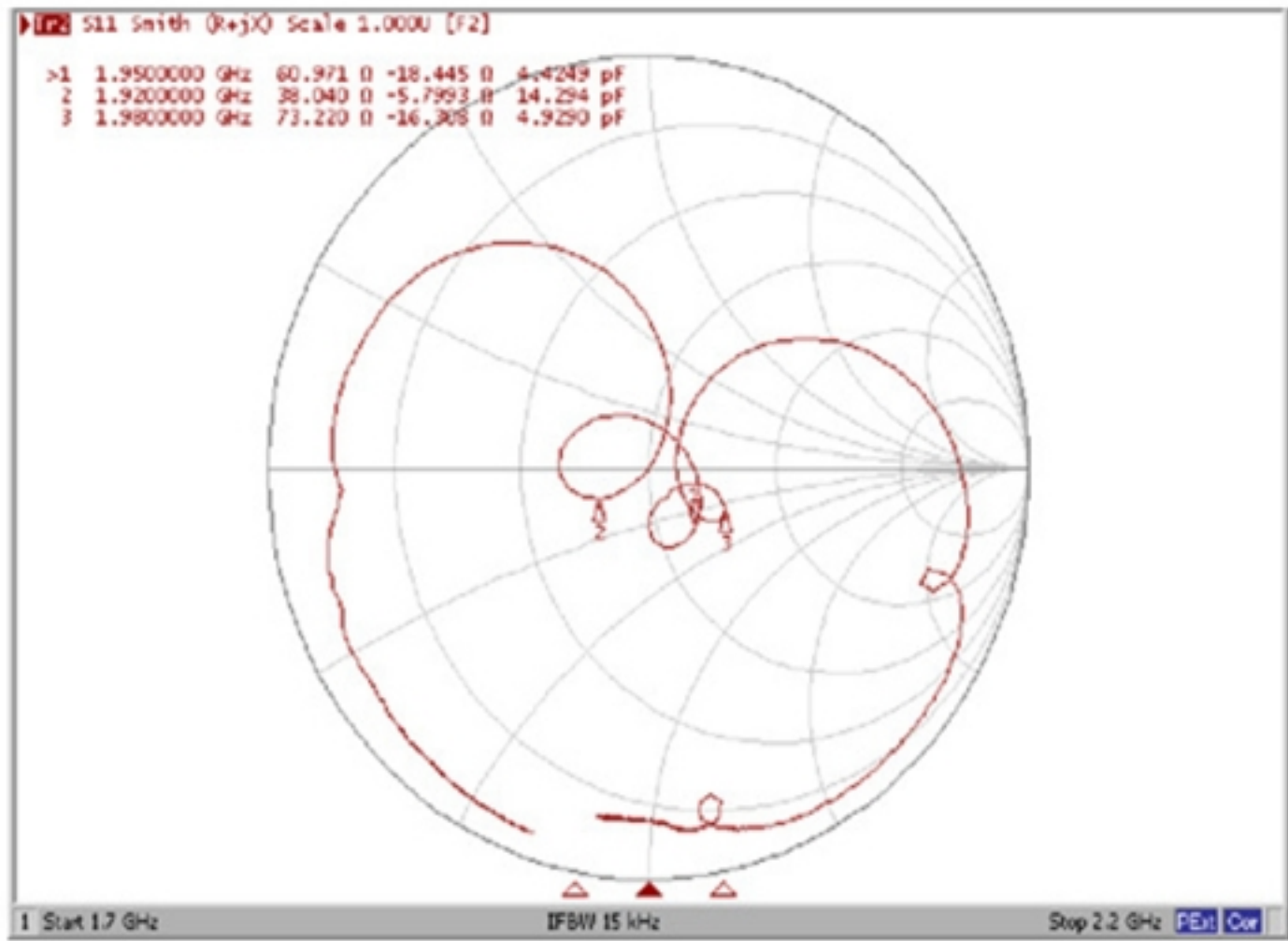


Reflection Functions:

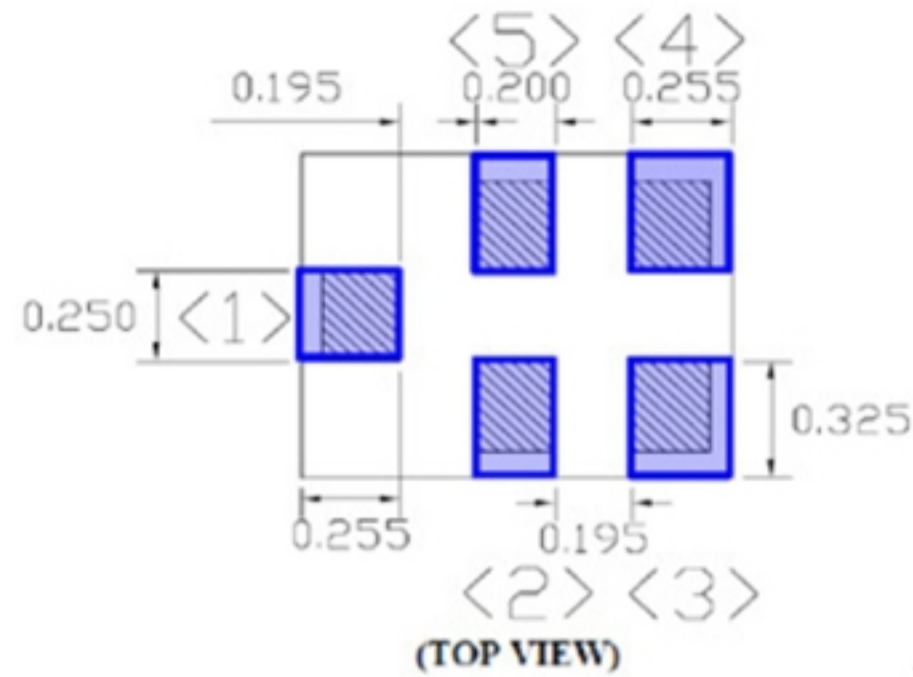
VSWR



Smith Chart

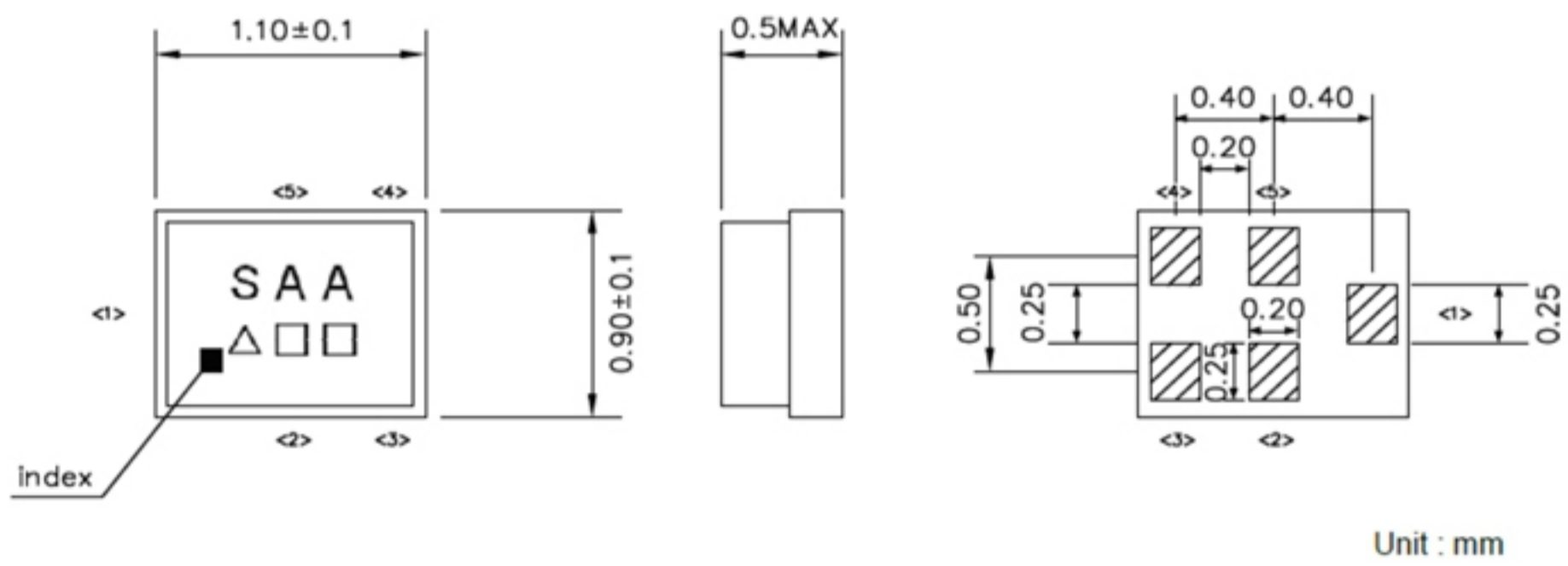


E. PCB Footprint:



F OUTLINE DRAWING (Mass Production):

Device size: 1.1typ. x 0.9typ. x 0.5max.



Pin Configuration

Pin No.	Symbol	Function
1	IN	Unbalanced pin
2	GND	Ground
3	GND	Ground
4	OUT	Unbalanced pin
5	GND	Ground

△ : Date Code

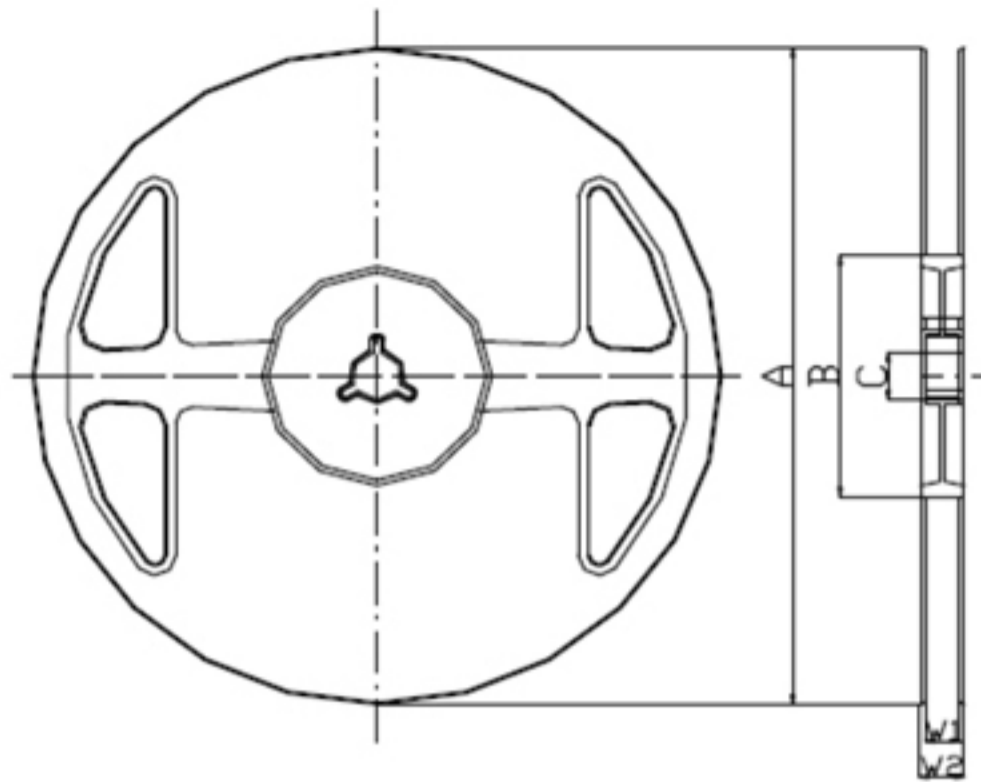
□ : Lot No. (Indicated by 0~9 or A to Z and a to z, except I, O, i, o and l)

Date Code:

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2017	A	B	C	∅	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	∇	W	X	Y	Z
2019	a	b	c	d	e	f	g	h	j	k	l	m
2020	n	p	q	r	s	t	u	v	w	x	y	z

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

1. REEL DIMENSION



Materials of Reel

Material : Polystyrene + Carbon

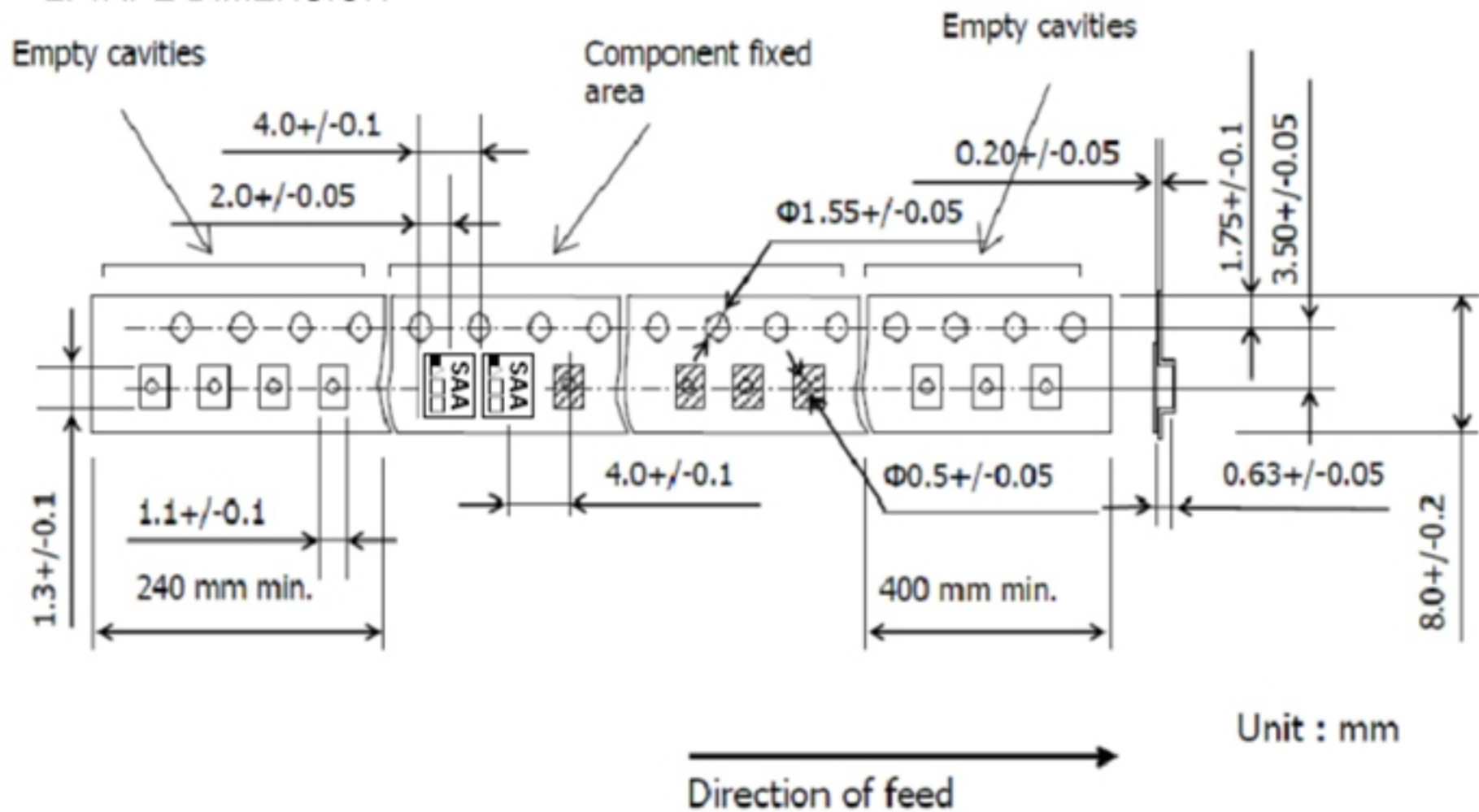
Color : Black

Surface resistance (reference value) : $10^9 \Omega/\text{sq}$ Max.

Unit : mm

Code	Quantity	A	B	C	W1	W2
J	5,000 pcs	$\phi 180.0 +0.0/-1.5$	$\phi 66.0 +/-0.5$	$\phi 13.0 +/-0.2$	$9.0 +1.0/-0.0$	$11.4 +/-1.0$

2. TAPE DIMENSION



Unit : mm

Direction of feed

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.

