

SAW Filter 1960 MHz

MODEL NO.:TA1870A

REV. NO.:2.0

A. MAXIMUM RATING:

1. Input Power Level: 10 dBm
2. DC Voltage : +/-5 V
3. Operating Temperature: -30 °C to +90 °C
4. Storage Temperature: -40 °C to +100 °C
5. Moisture Sensitive Level: Level 1 (MSL1)
6. ESD: 50 V(MM), 100 V(HBM)

RoHS Compliant

Lead-free soldering

Electrostatic Sensitive Device (ESD)

B. ELECTRICAL CHARACTERISTICS:

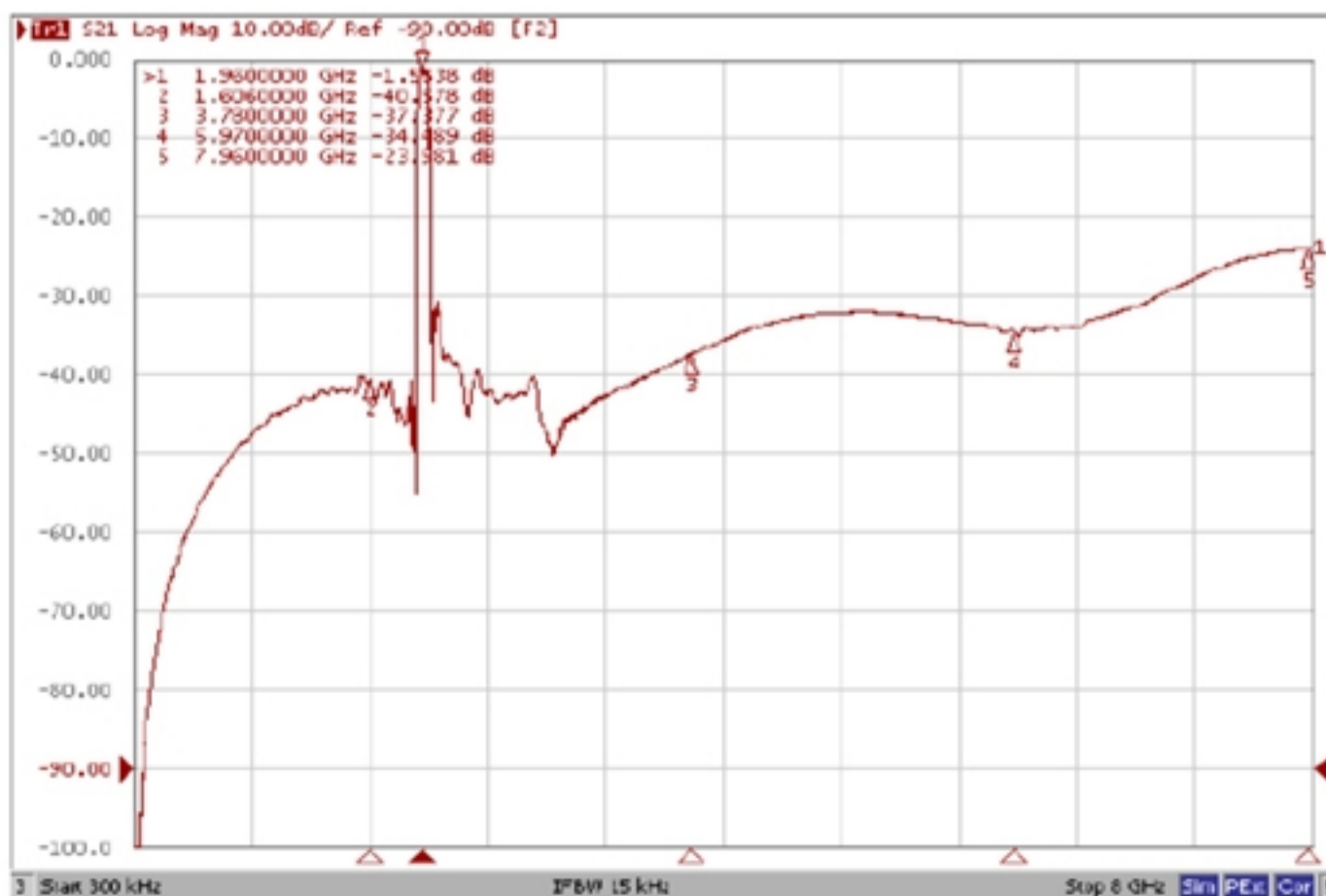
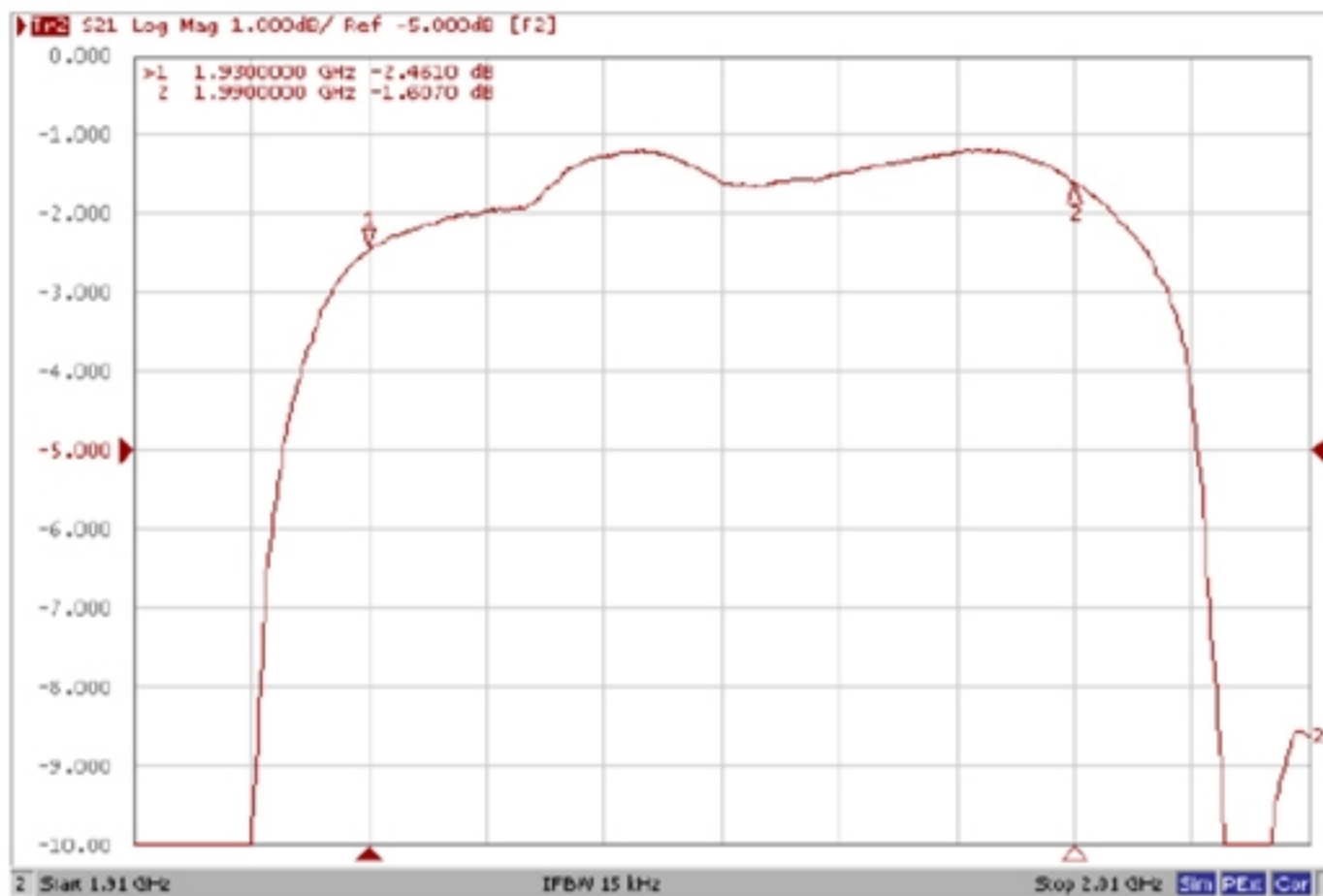
Terminating source impedance: $Z_s = 50 \Omega$ (Single-ended)

Terminating load impedance: $Z_L = 50//4.7nH \Omega$ (Single-ended)

Item	Unit	Min.	Typ.	Max.
Center Frequency F_c	MHz	-	1960	-
Insertion Loss (1930~1990 MHz) IL	dB(*1)	-	2.8	4.0
Amplitude Ripple (1930~1990 MHz)	dB	-	1.3	2.7
VSWR Input (1930~1990 MHz)	-	-	1.9	2.2
VSWR Output (1930~1990 MHz)	-	-	2.0	2.3
Attenuation (Reference level from 0 dB)				
DC ~ 960 MHz	dB	40	45	-
1558 ~ 1608 MHz	dB	35	40	-
1710 ~ 1850 MHz	dB	35	40	-
1850 ~ 1910 MHz	dB	35	39	-
2020 ~ 2070 MHz	dB	7	27	-
2070 ~ 2400 MHz	dB	25	33	-
2400 ~ 2500 MHz	dB	33	43	-
2500 ~ 3780 MHz	dB	28	40	-
3780 ~ 3980 MHz	dB	30	39	-
3980 ~ 5790 MHz	dB	21	31	-
5790 ~ 5970 MHz	dB	21	31	-
5970 ~ 7720 MHz	dB	21	31	-
7720 ~ 7960 MHz	dB	17	27	-
7960 ~ 8000 MHz	dB	17	27	-

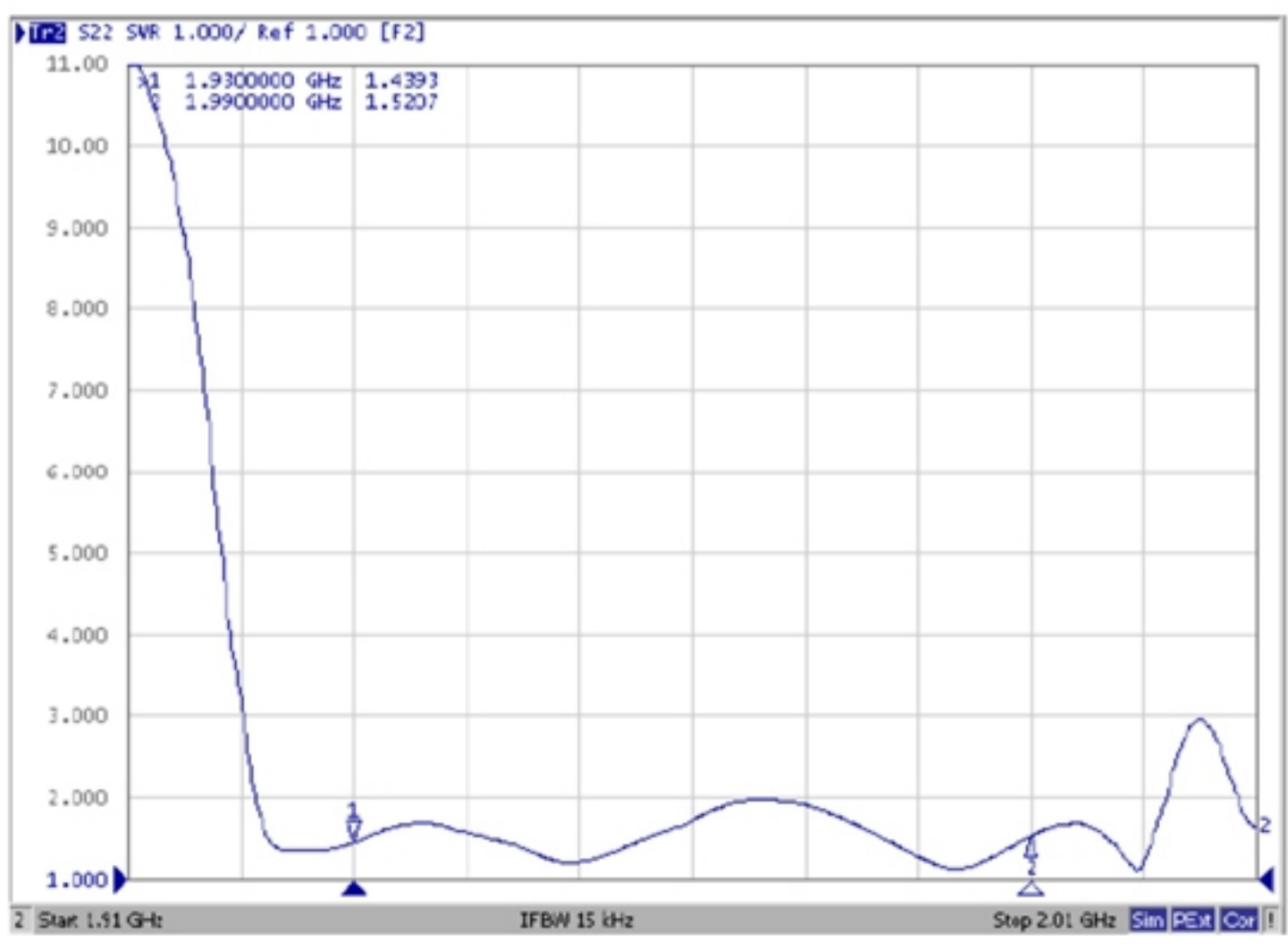
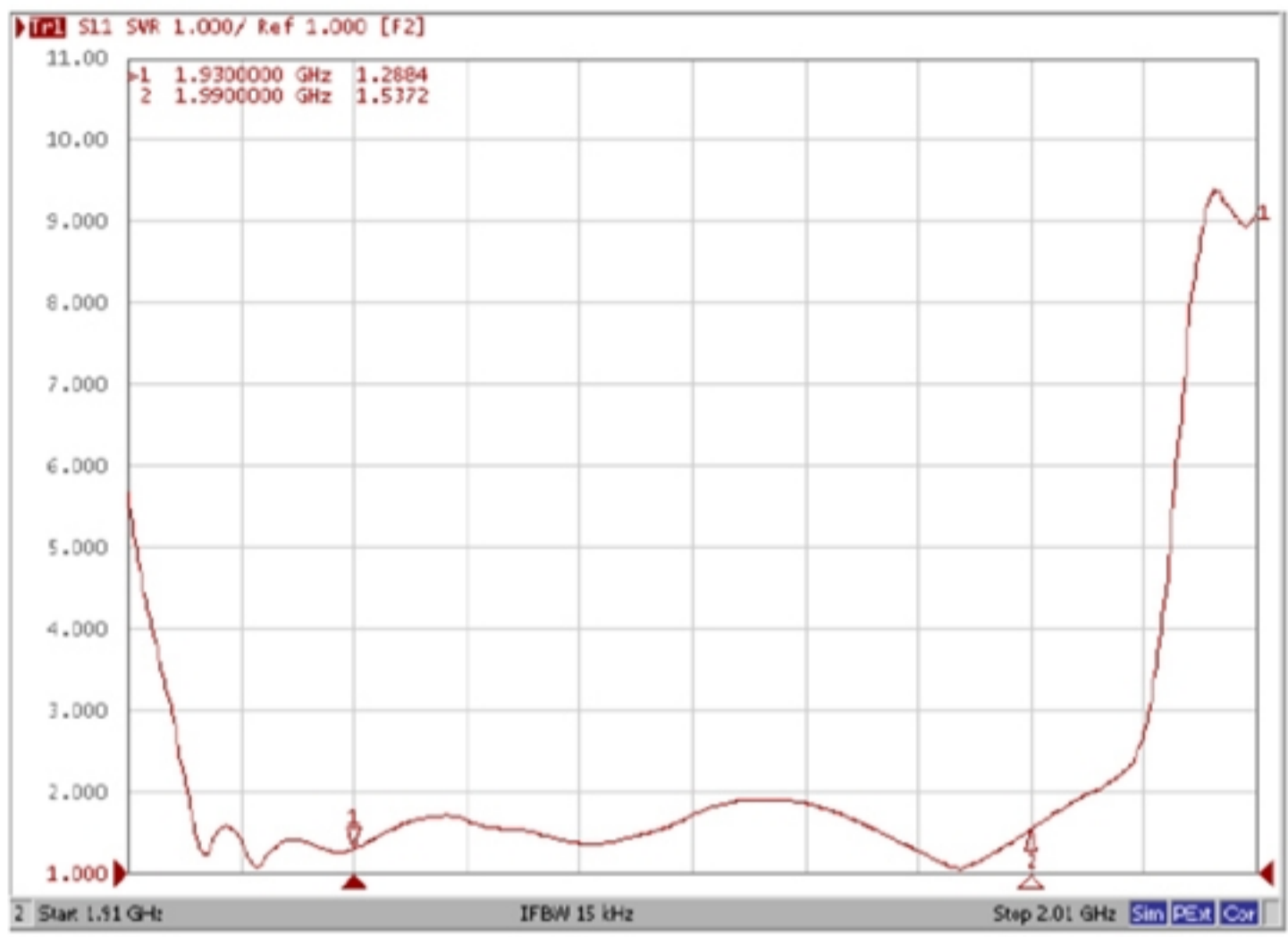
(*1) Specification of insertion loss excludes loss that comes from the test board.

C. FREQUENCY CHARACTERISTICS:

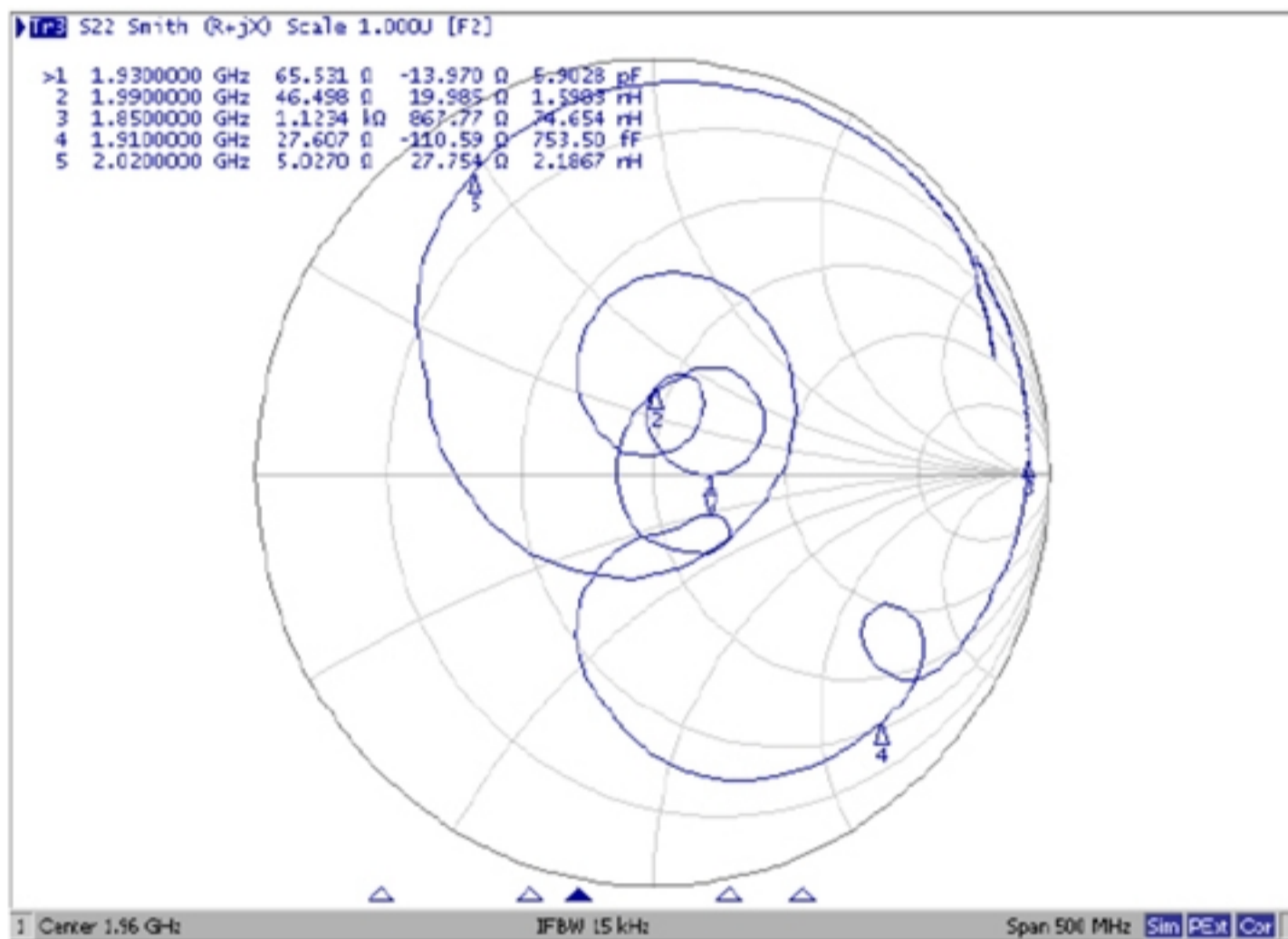
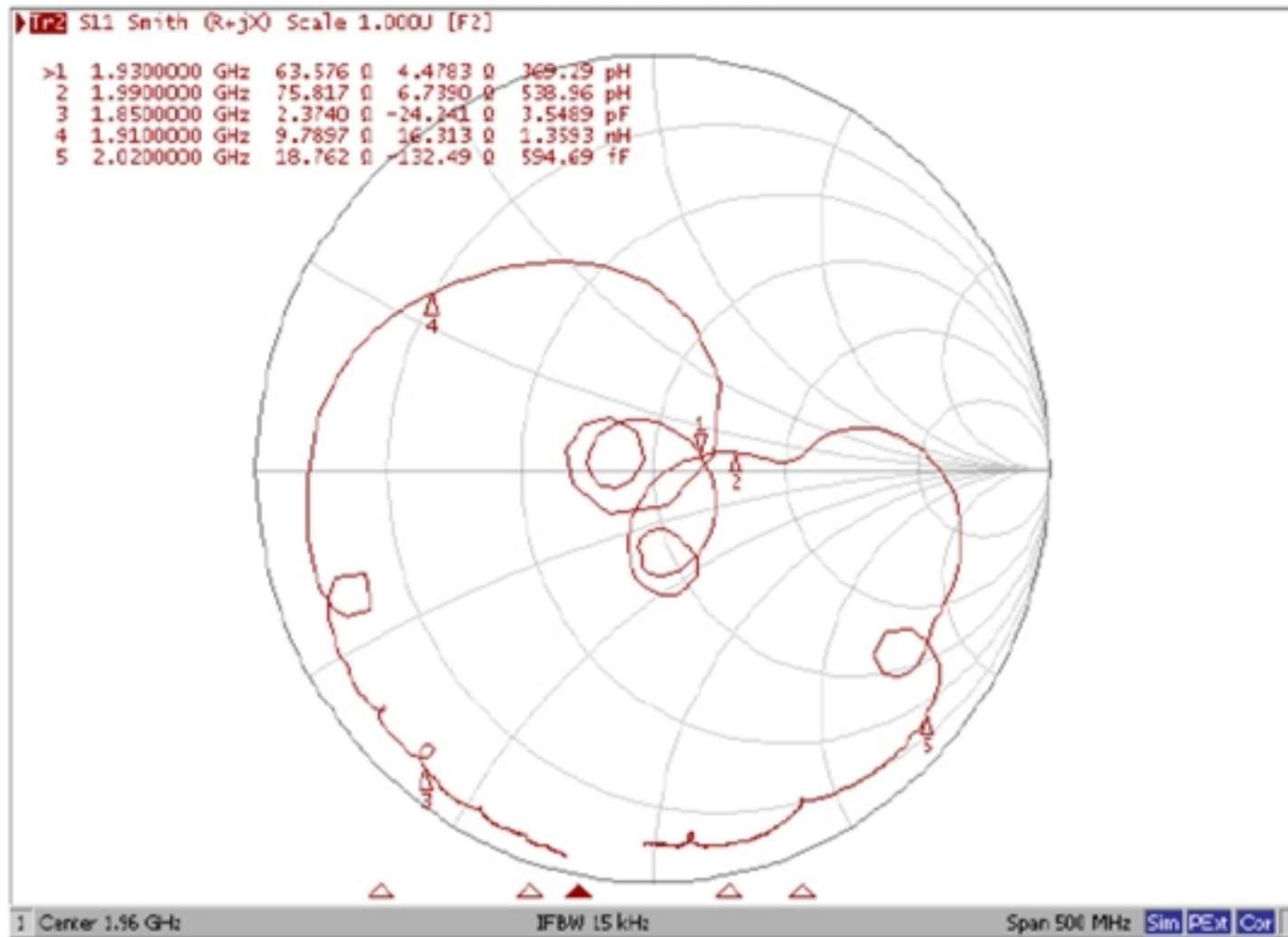


Reflection Functions:

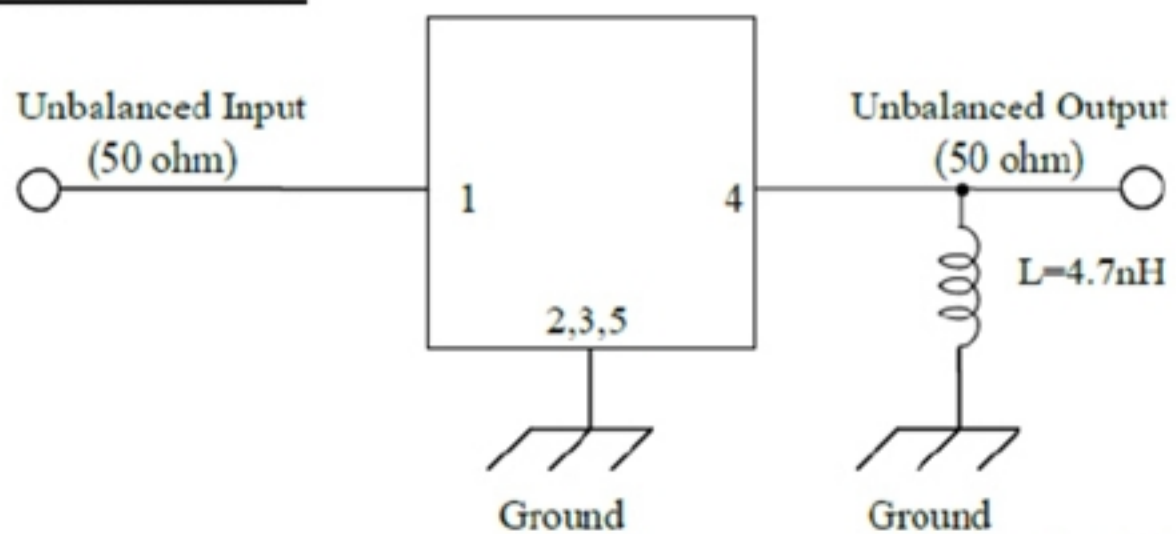
VSWR



Smith Chart

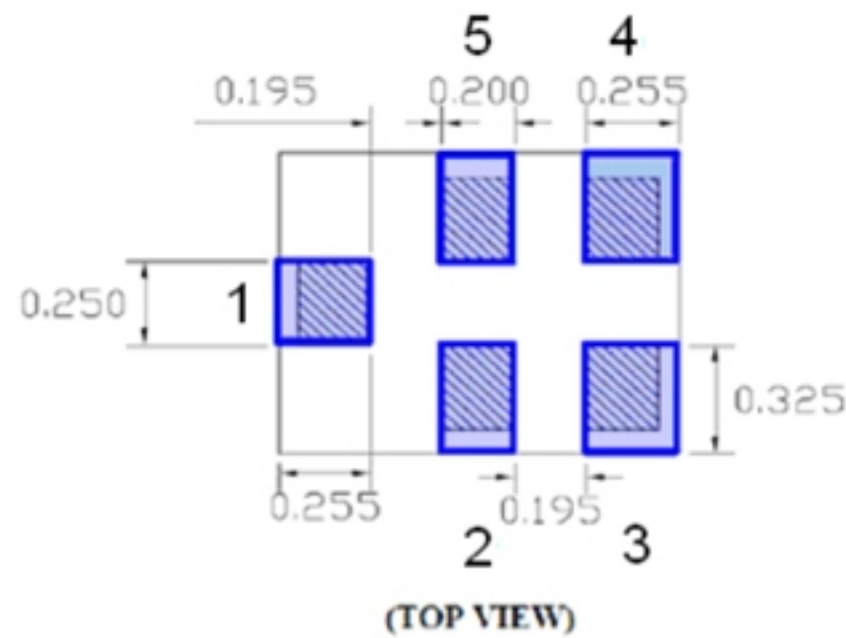


D. MEASUREMENT CIRCUIT:



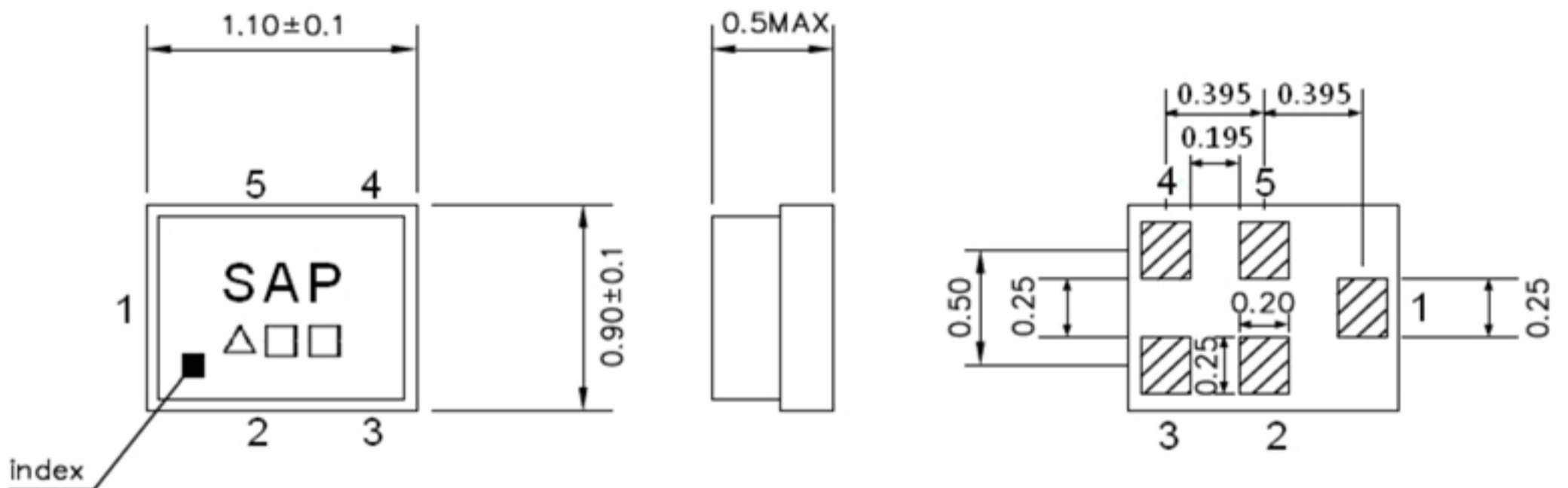
1 to 5 ; Pin No. _____

E. PCB Footprint:



F. OUTLINE DRAWING:

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



Unit : mm

Pin Configuration

Pin No.	Symbol	Function
1	IN	Unbalanced input
2	GND	Ground
3	GND	Ground
4	OUT	Unbalanced output
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)

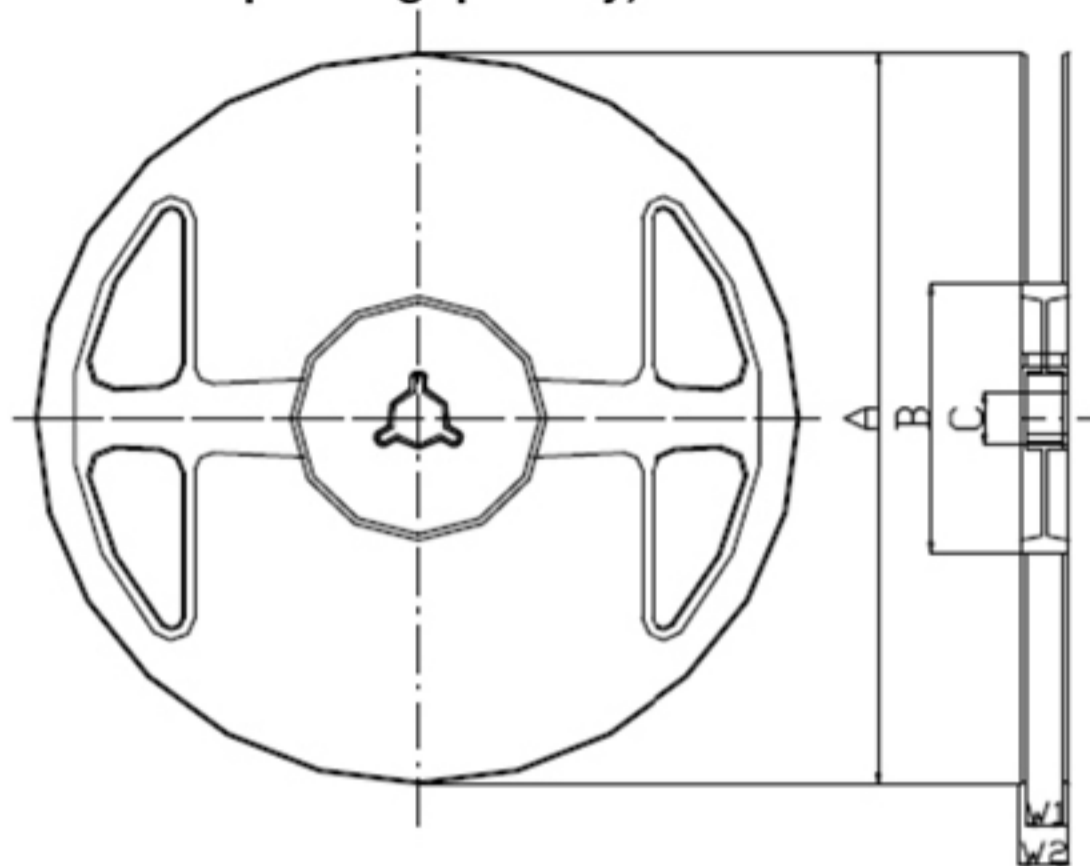
Date Code:

Year	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2017	A	B	C	Đ	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	V	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

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



Materials of Reel

Material : Polystyrene + Carbon

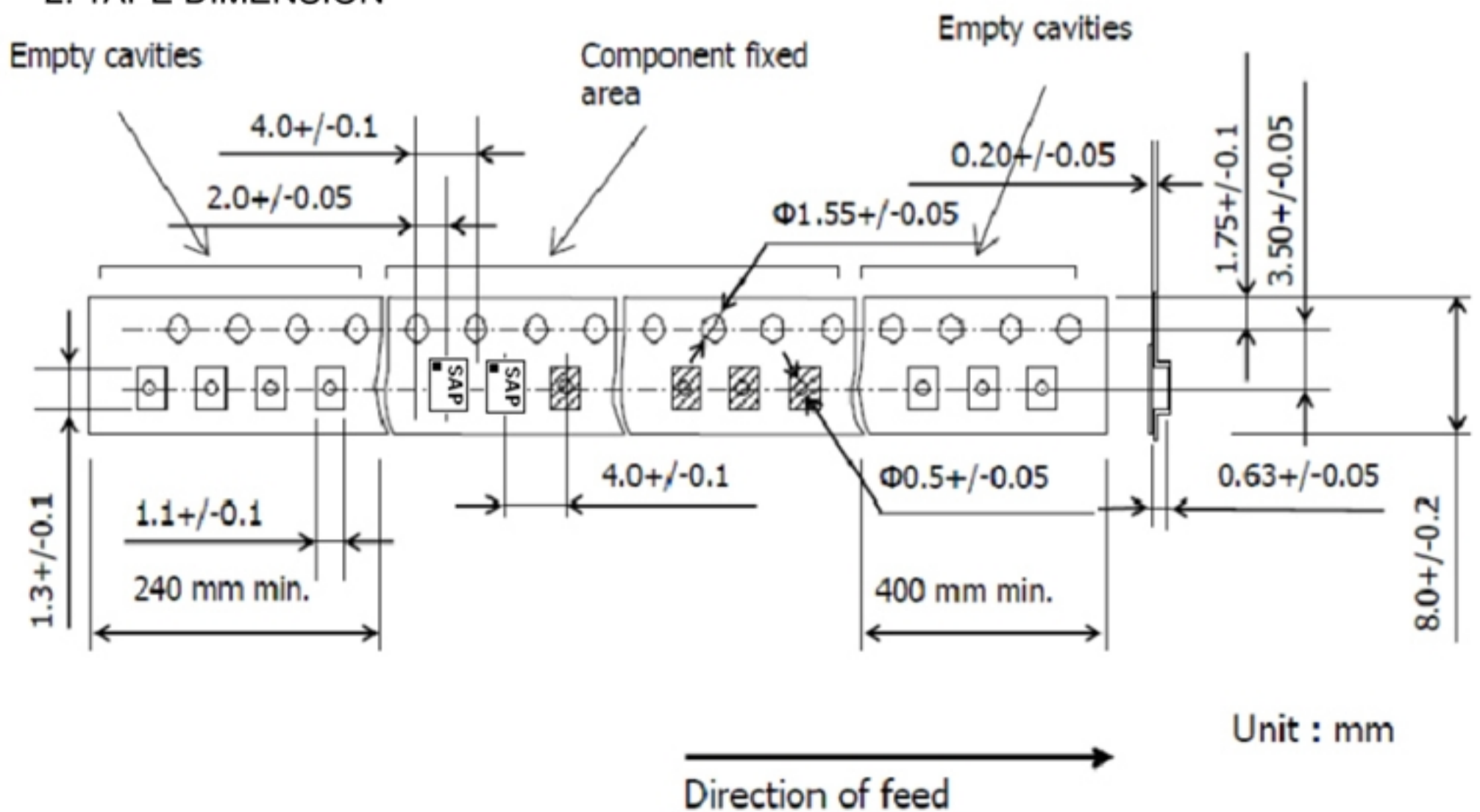
Color : Black

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

Unit : mm

A	B	C	W1	W2
$\phi 180.0 +0.0/-1.5$	$\phi 66.0 +/-0.5$	$\phi 13.0 +/-0.2$	$9.0 +1.0/-0.0$	$11.4 +/-1.0$

2. TAPE DIMENSION



Unit : mm

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.

