SAW Filter 773 MHz

MODEL NO.:TA1897A REV. NO.:3.0

RoHS Compliant

Lead-free soldering

A. MAXIMUM RATING:

1. Input Power Level: 15 dBm (in passband)
2. DC Voltage : +/-5 V
3. Operating Temperature: -30 ℃ to +85 ℃
4. Storage Temperature: -40 ℃ to +100 ℃
5. Moisture Sensitive Level: Level 1 (MSL1)
6. ESD: 100 V(MM), 200 V(HBM)

Electrostatic **S**ensitive **D**evice (**ESD**)

B. ELECTRICAL CHARACTERISTICS:

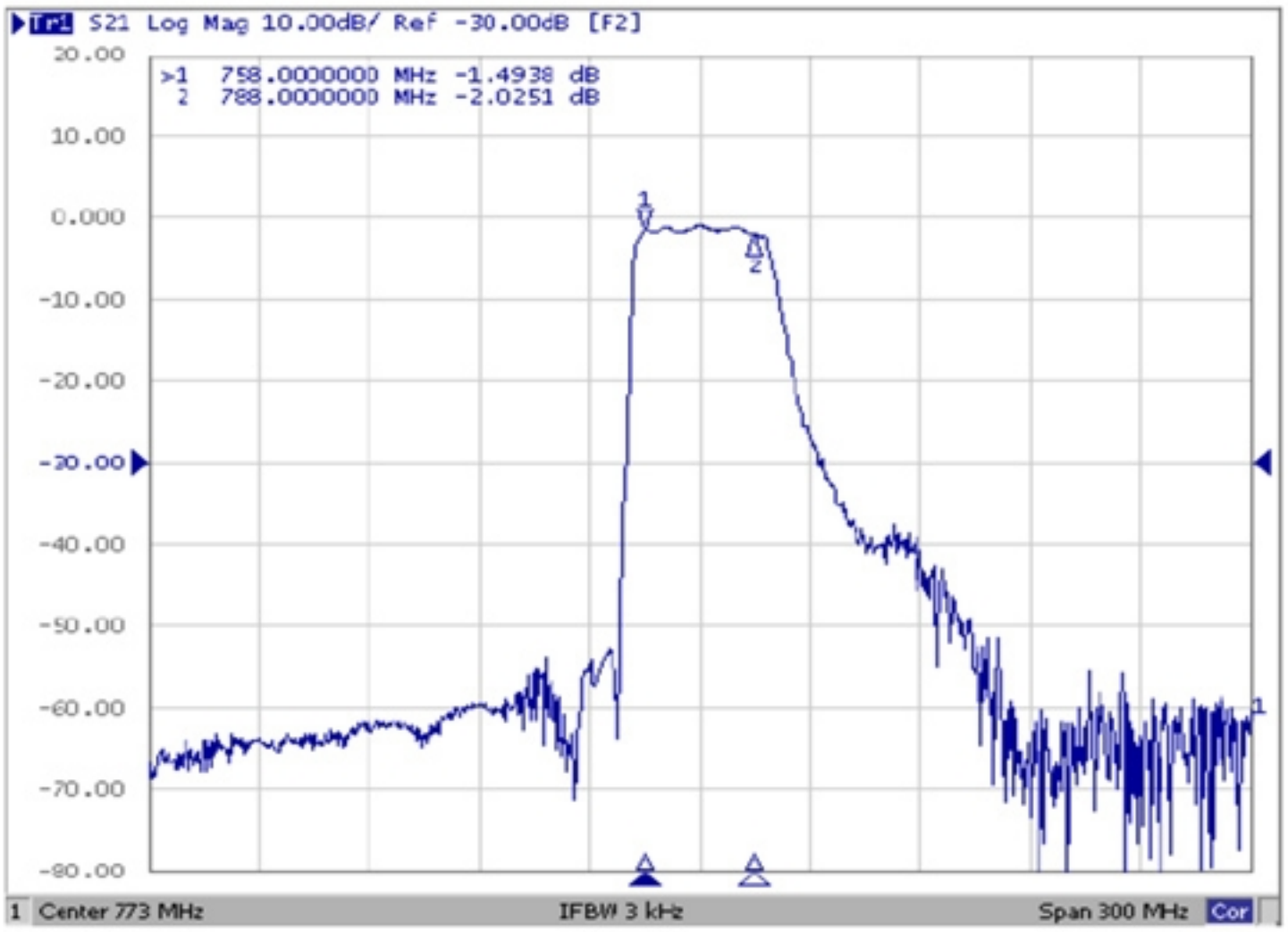
Terminating source impedance: Zs = 50 Ω

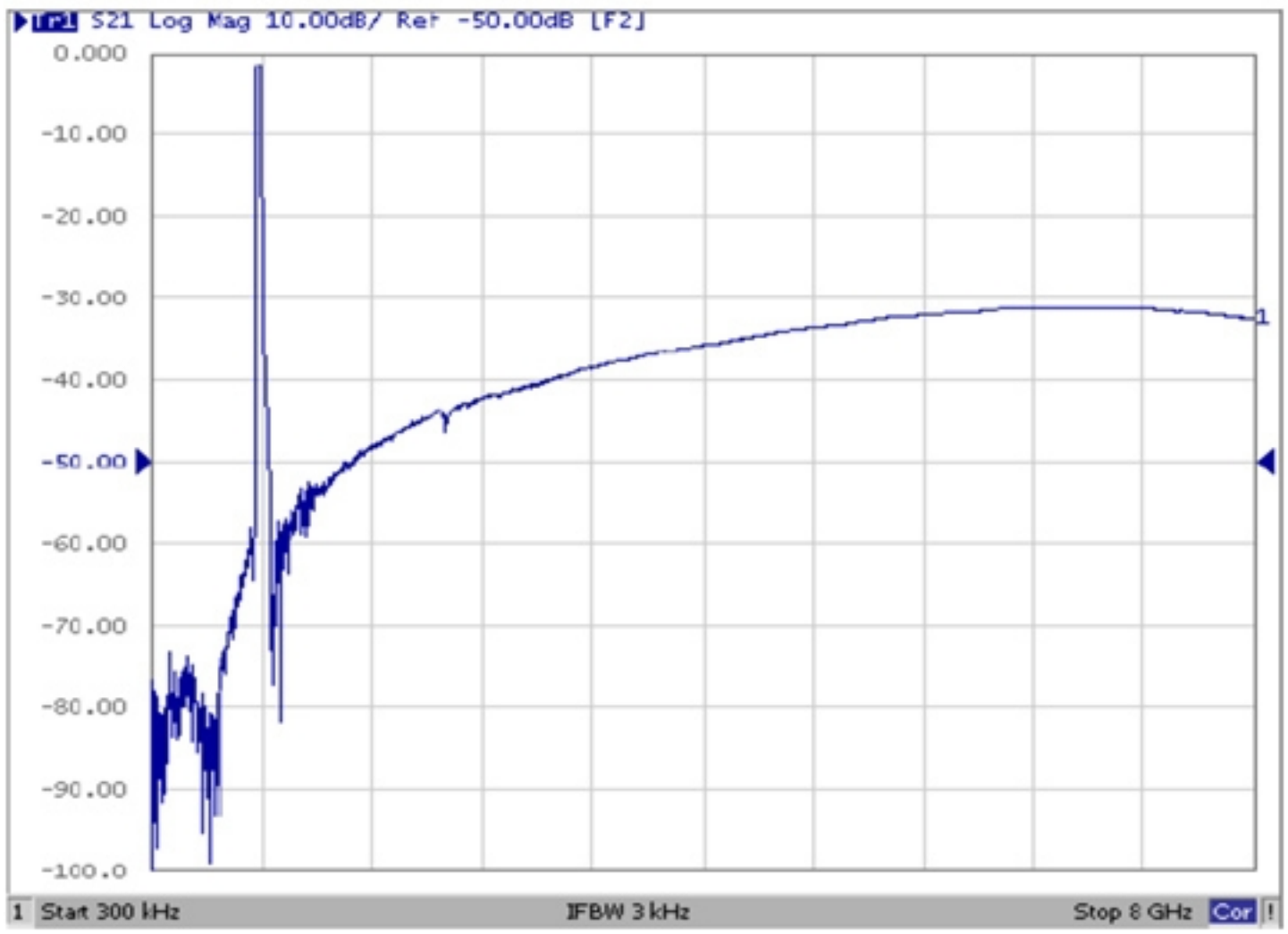
Terminating load impedance: Z_L = 50 Ω

Parameters Description		Unit	Min.	Typ.	Max.
Center Frequency	**Fc**	MHz	-	773	-
Insertion Loss (758~788 MHz)	**IL**	dB(*1)	-	2.1	3.0
Amplitude Ripple (758~788 MHz)		dB	-	1.1	2.3
VSWR (758~788 MHz)		-	-	2.2	2.5
Attenuation (Reference level from 0 dB)					
703 ~ 733 MHz		dB	46	52	-
733 ~ 748 MHz		dB	46	53	-
1516 ~ 1576 MHz		dB	40	49	-
1559 ~ 1606 MHz		dB	40	48	-
2274 ~ 2364 MHz		dB	35	43	-
2400 ~ 2500 MHz		dB	35	43	-
3032 ~ 3152 MHz		dB	30	40	-
3790 ~ 3940 MHz		dB	30	39	-
4548 ~ 4728 MHz		dB	30	38	-
4900 ~ 5950 MHz		dB	30	37	-
5306 ~ 5516 MHz		dB	30	38	-
6064 ~ 6304 MHz		dB	30	39	-
6822 ~ 7092 MHz		dB	30	42	-
7580 ~ 7880 MHz		dB	25	49	-

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

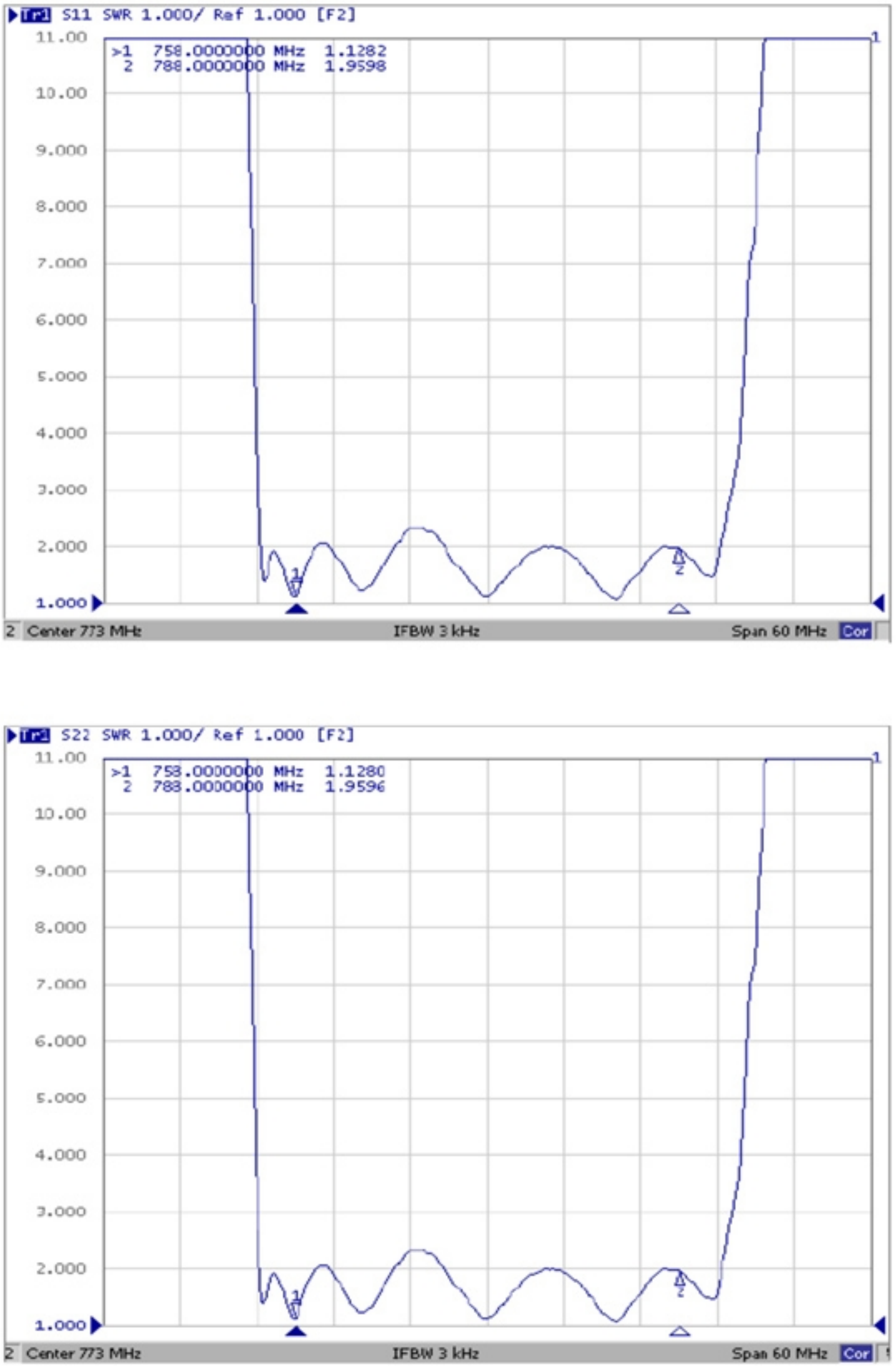
C. FREQUENCY CHARACTERISTICS:



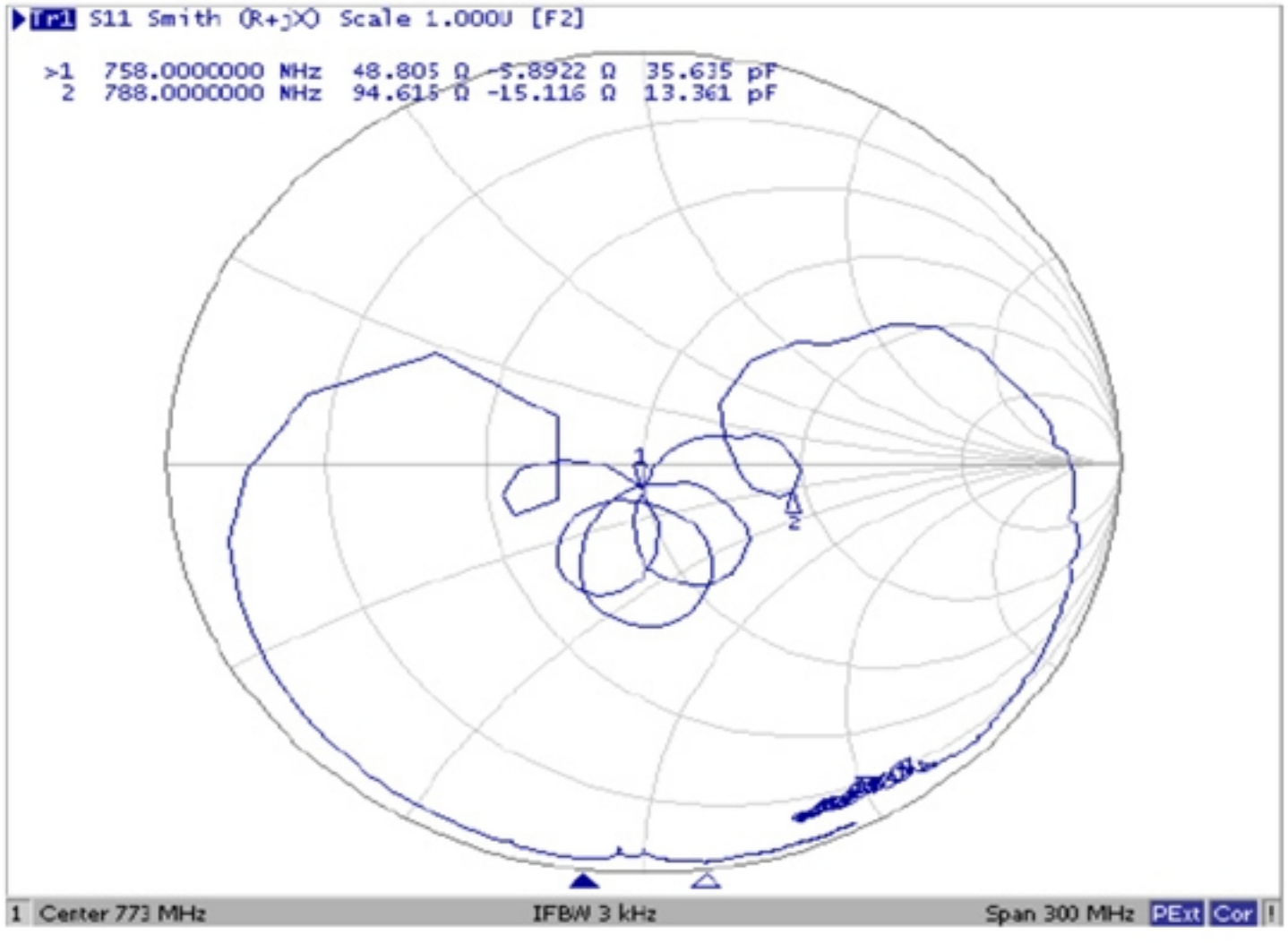


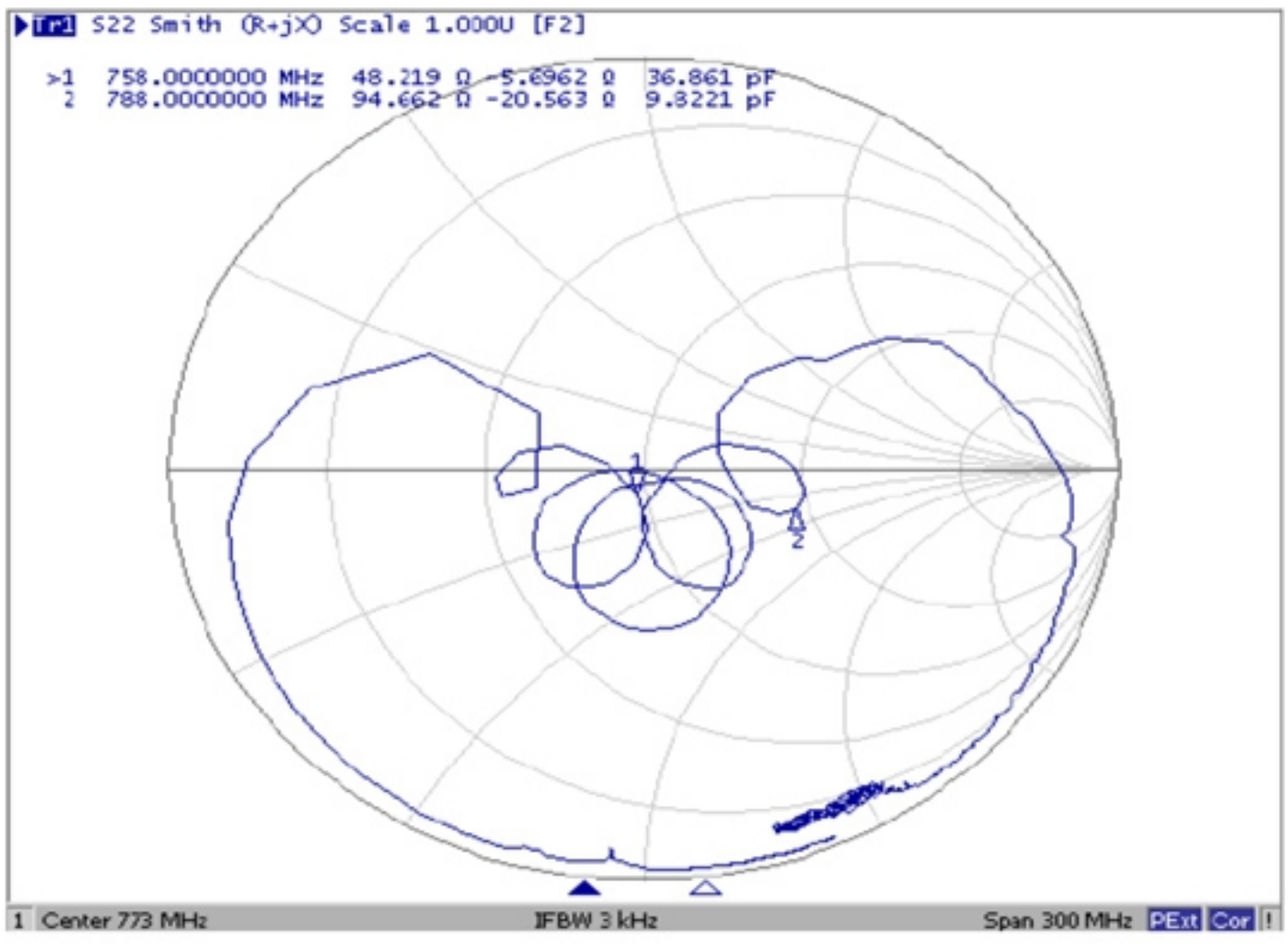
Reflection Functions:

VSWR

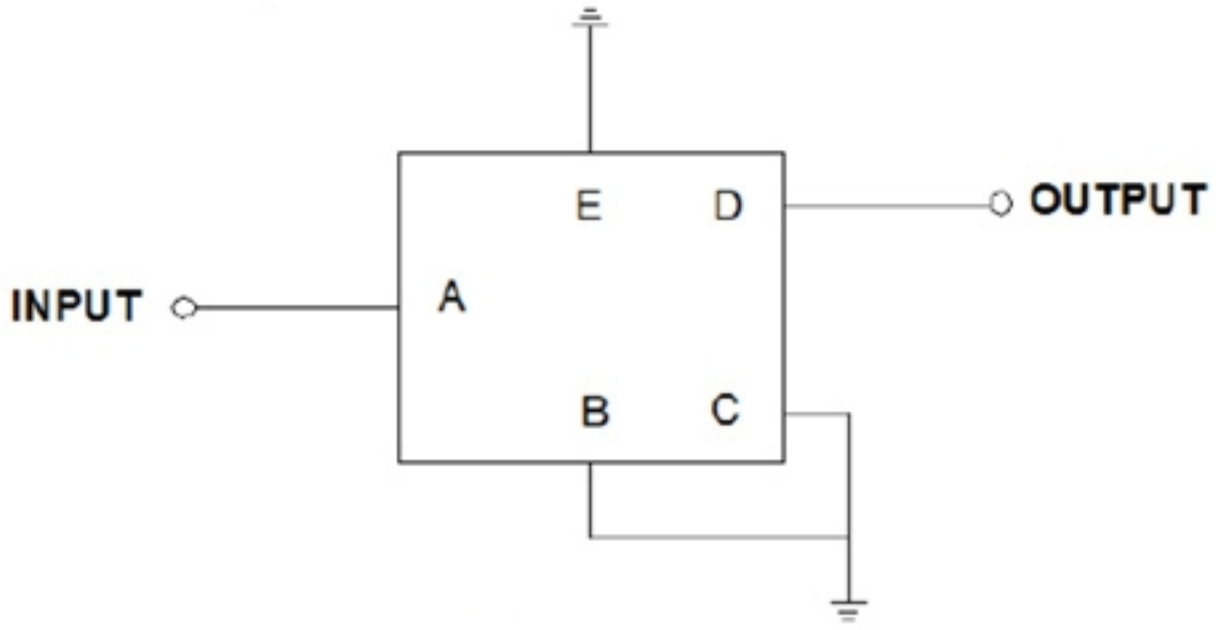


Smith Chart


Tr1 S11 Smith (R+jX) Scale 1.000U [F2]
>1 758.0000000 MHz 48.805 Ω -5.8922 Ω 35.635 pF
2 788.0000000 MHz 94.615 Ω -15.116 Ω 13.361 pF
1 Center 773 MHz
IFBW 3 kHz
Span 300 MHz
PExt
Cor

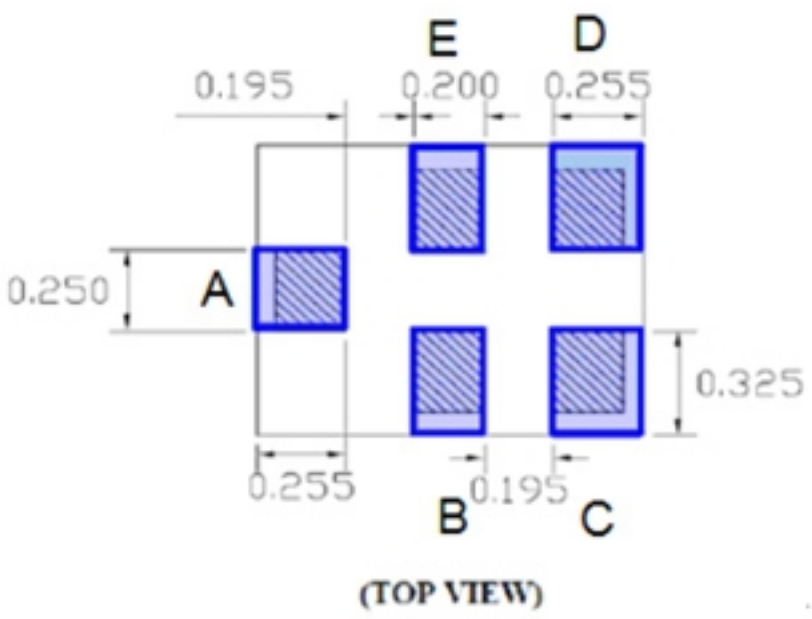

Tr1 S22 Smith (R+jX) Scale 1.000U [F2]
>1 758.0000000 MHz 48.219 Ω -5.6962 Ω 36.861 pF
2 788.0000000 MHz 94.662 Ω -20.563 Ω 9.3221 pF
1 Center 773 MHz
IFBW 3 kHz
Span 300 MHz
PExt
Cor

D. MEASUREMENT CIRCUIT:



Source & Load Impedance: 50 Ω

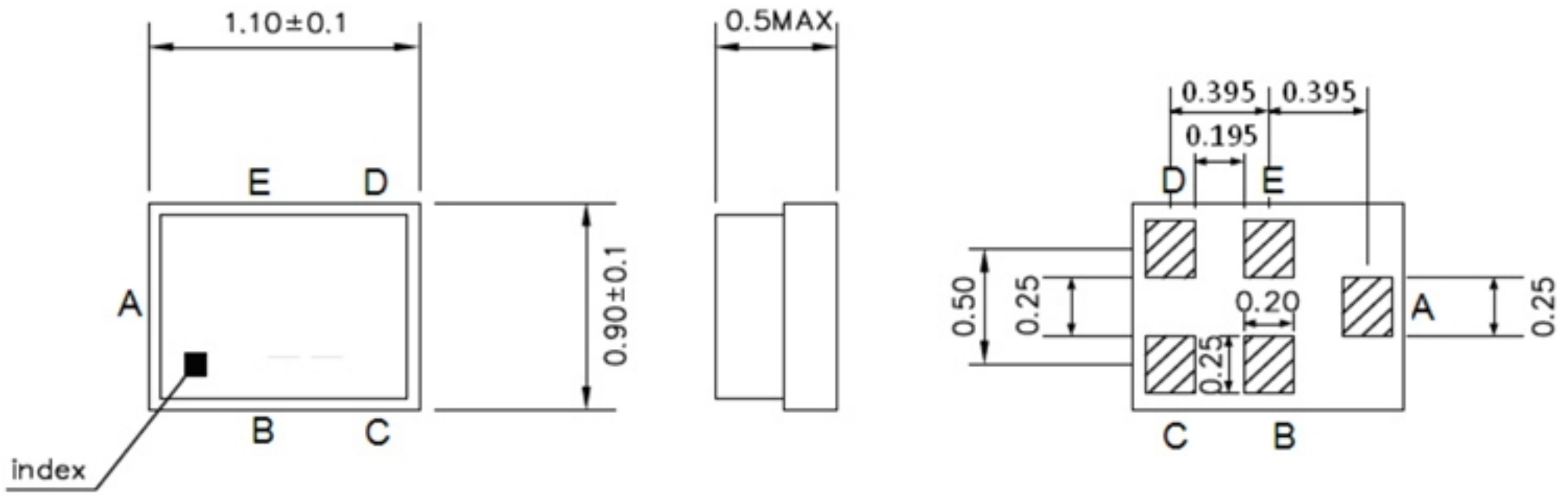
E. PCB Footprint:



(TOP VIEW)

F. OUTLINE DRAWING:

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

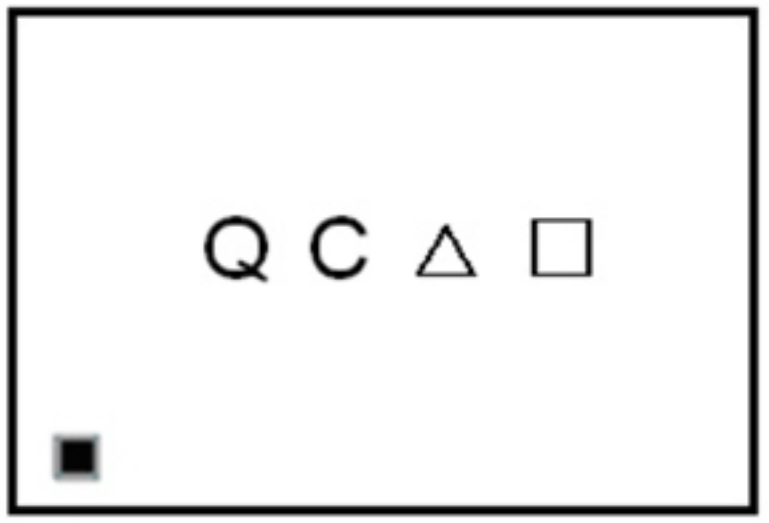


Unit : mm

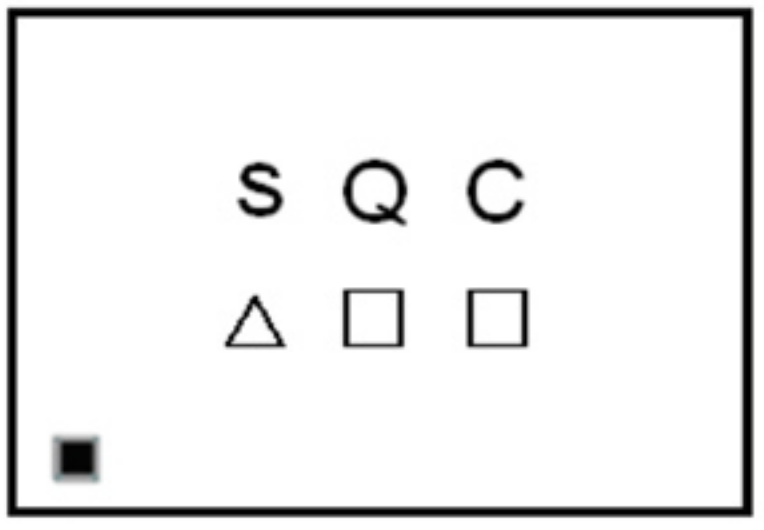
Pin Configuration

Pin No.	Symbol	Function
A	IN	Unbalanced pin
B	GND	Ground
C	GND	Ground
D	OUT	Unbalanced pin
E	GND	Ground

Top View (Mass Production):



Top View (Sample Production):



△ : **Date Code**

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

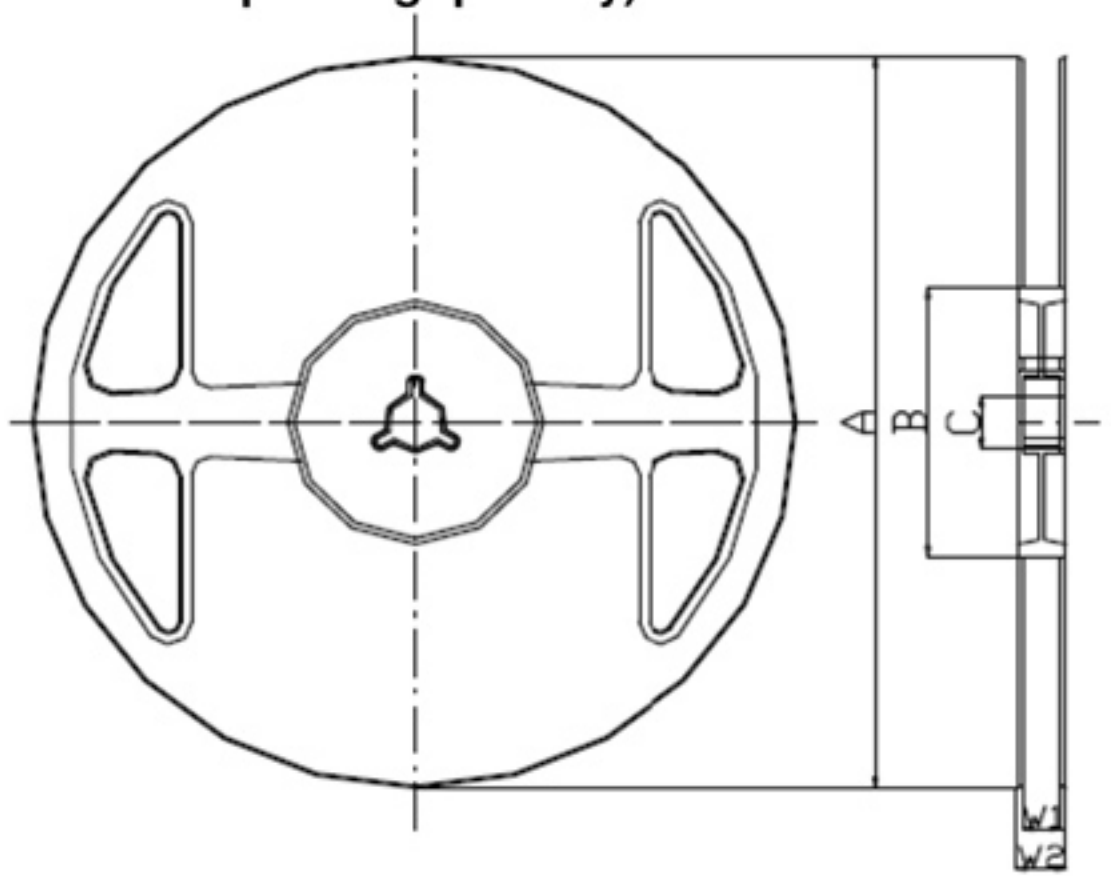
Date Code:

Year	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	A	B	C	D	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	▽	W	X	Y	Z

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

1. REEL DIMENSION

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



Materials of Reel

Material : Polvstvrene + Carbon

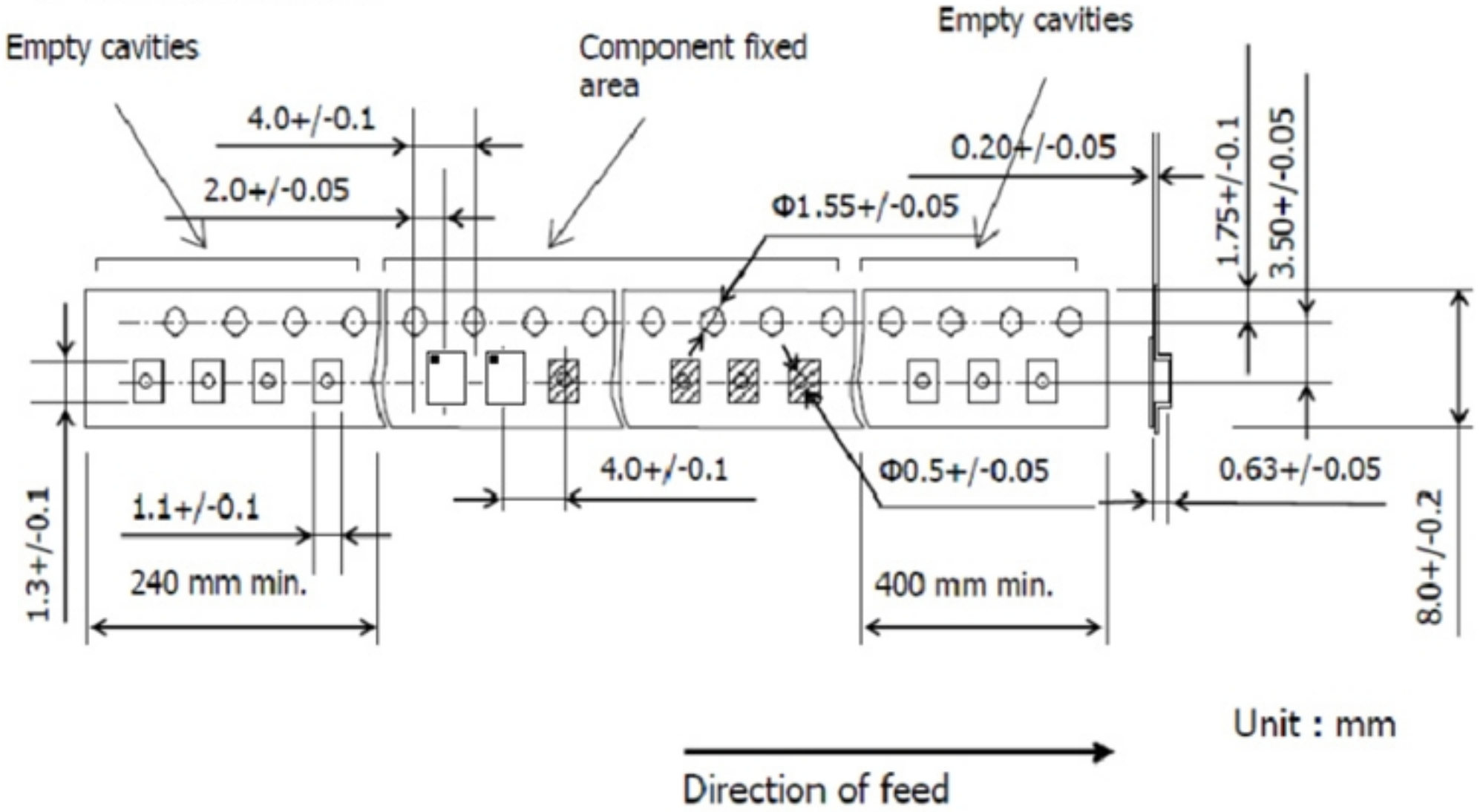
Color : Black

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

Unit : mm

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

2. TAPE DIMENSION



H. <u>Recommended Reflow Profile:</u>

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.