TAI-SAW TECHNOLOGY CO., LTD.
No. 3, Industrial 2nd Rd., Ping-Chen Industrial District,
Taoyuan, 324, Taiwan, R.O.C.
TEL: 886-3-4690038 FAX: 886-3-4697532
E-mail: tstsales@mail.taisaw.com Web: www.taisaw.com

Product Specifications Approval Sheet

Product Name: SAW Filter 1960MHz 60MHz BW Band 2 Rx SMD 1.1×0.9 mm

TST Parts No.: TA1870D

Customer Parts No.:_____

Customer signature required

Company:_____

Division:_____

Approved by :_____

Date:_____

Checked by:_____ Kazuma Lee Kazuma Lee

Approved by:_____ Andy Yu Andy Yu

Date:_____ 12, 19, 2018

1. Customer signed back is required before TST can proceed with sample build and receive orders.
2. Orders received without customer signed back will be regarded as agreement on the specifications.
3. Any specifications changes must be approved upon by both parties and a new revision of specifications shall be released to reflect the change

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SAW Filter 1960 MHz 60MHz BW Band 2 SMD 1.1x0.9 mm

MODEL NO.:TA1870D REV.2.0

A. MAXIMUM RATING:

1. Operating temperature range: -30 ℃ to +90 ℃
2. Storage temperature range: -40 ℃ to +90 ℃
3. Maximum Input Power: +10 dBm
4. Maximum DC Voltage: +/-0 V
5. Moisture Sensitivity Level: Level 3

RoHS Compliant
Lead free
Lead-free soldering

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

B. ELECTRICAL CHARACTERISTICS:

Terminating source impedance: Zs = 50 Ω (Single-ended)

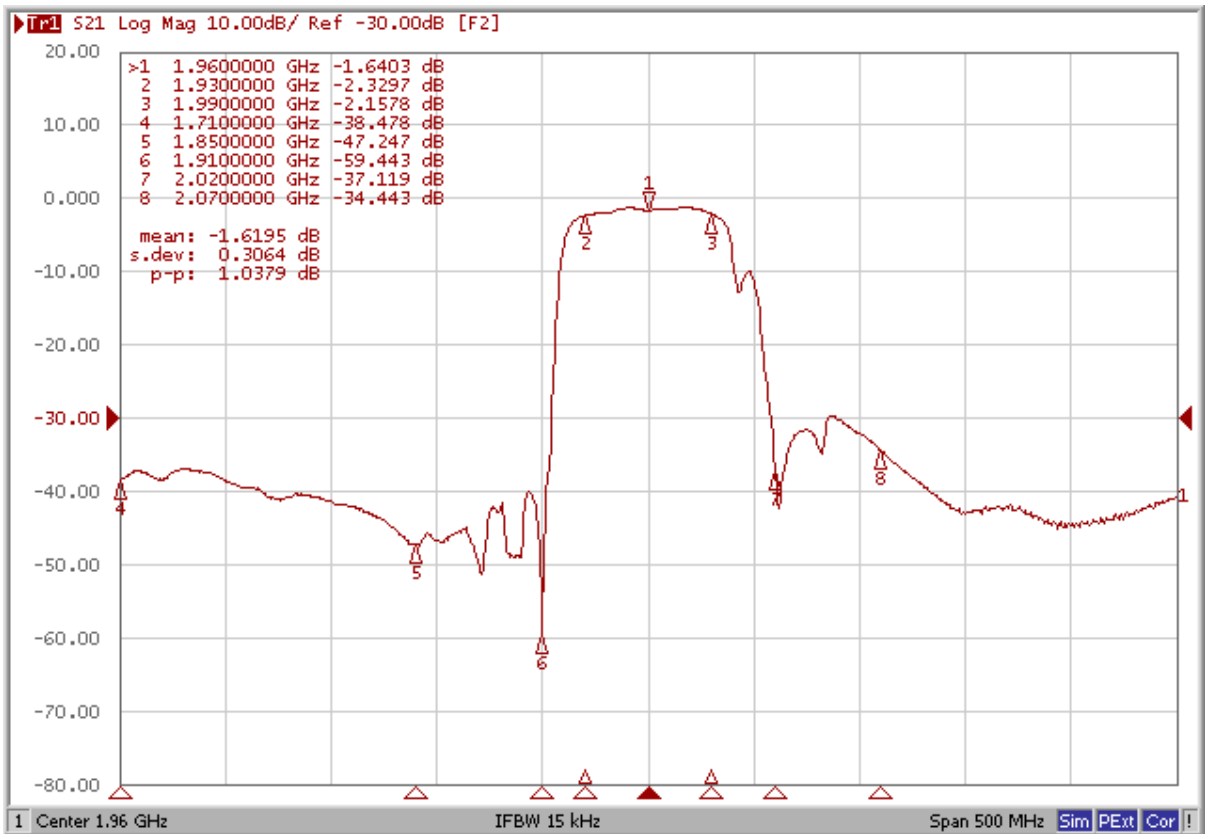
Terminating load impedance: Z_L = 50Ω//4.7nH (Single-ended)

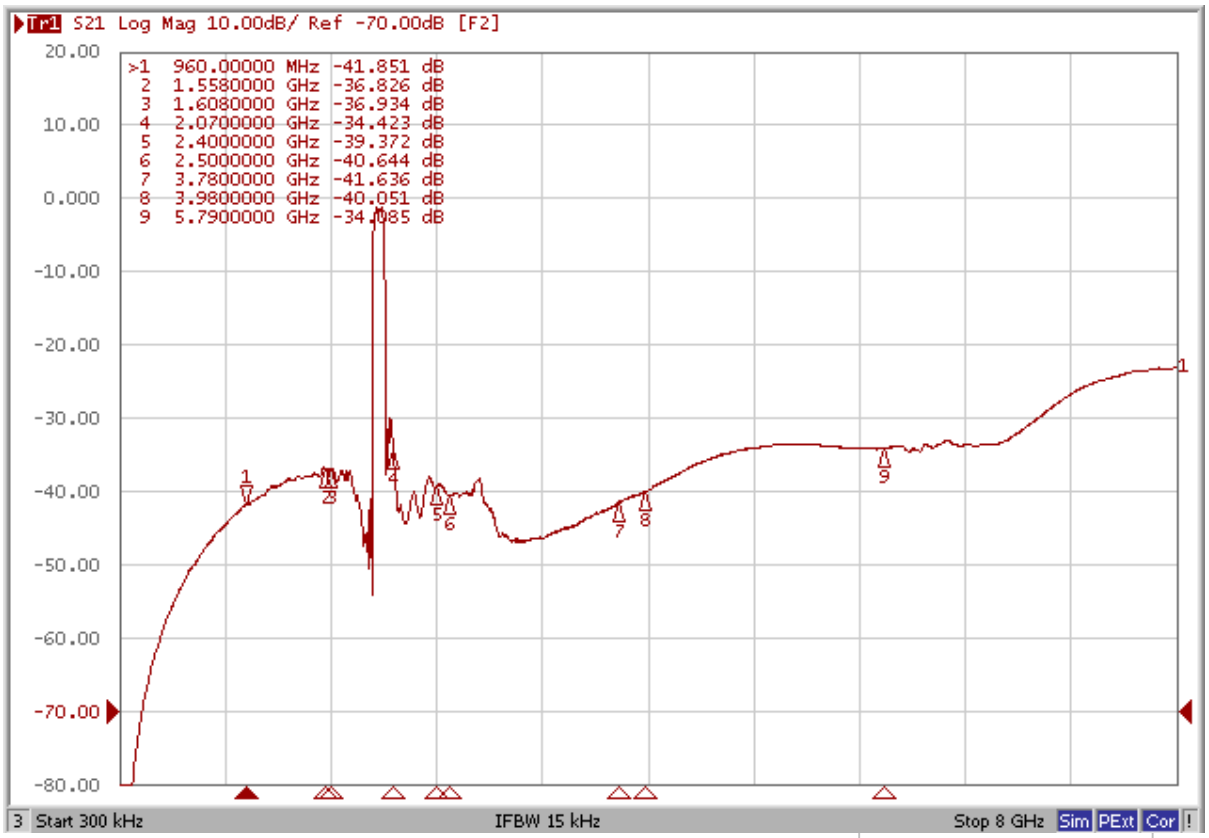
Parameters Description		Unit	Minimum	Typical	Maximum
Center Frequency		MHz	-	1960	-
Insertion Loss	1930~1990 MHz	dB	-	2.3	4.0
Amplitude ripple	1930~1990 MHz	dB_{p-p}	-	1.0	2.7
VSWR(Input)	1930~1990 MHz	-	-	1.9	2.3
VSWR(Output)	1930~1990 MHz	-	-	1.8	2.3
Attenuation:					
DC~960 MHz		dB	38	41	-
1558~1608 MHz		dB	35	36	-
1710~1850 MHz		dB	35	37	-
1850~1910 MHz		dB	32	39	-
2020~2070 MHz		dB	7	27	-
2070~2400 MHz		dB	25	33	-
2400~2500 MHz		dB	33	39	-
2500~3780 MHz		dB	28	37	-
3780~3980 MHz		dB	30	40	-
3980~5790 MHz		dB	21	34	-
5790~5970 MHz		dB	21	34	-
5970~7720 MHz		dB	21	23	-
7720~7960 MHz		dB	17	23	-
7960~8000 MHz		dB	17	23	-

Notes : (1) With Matching Network .

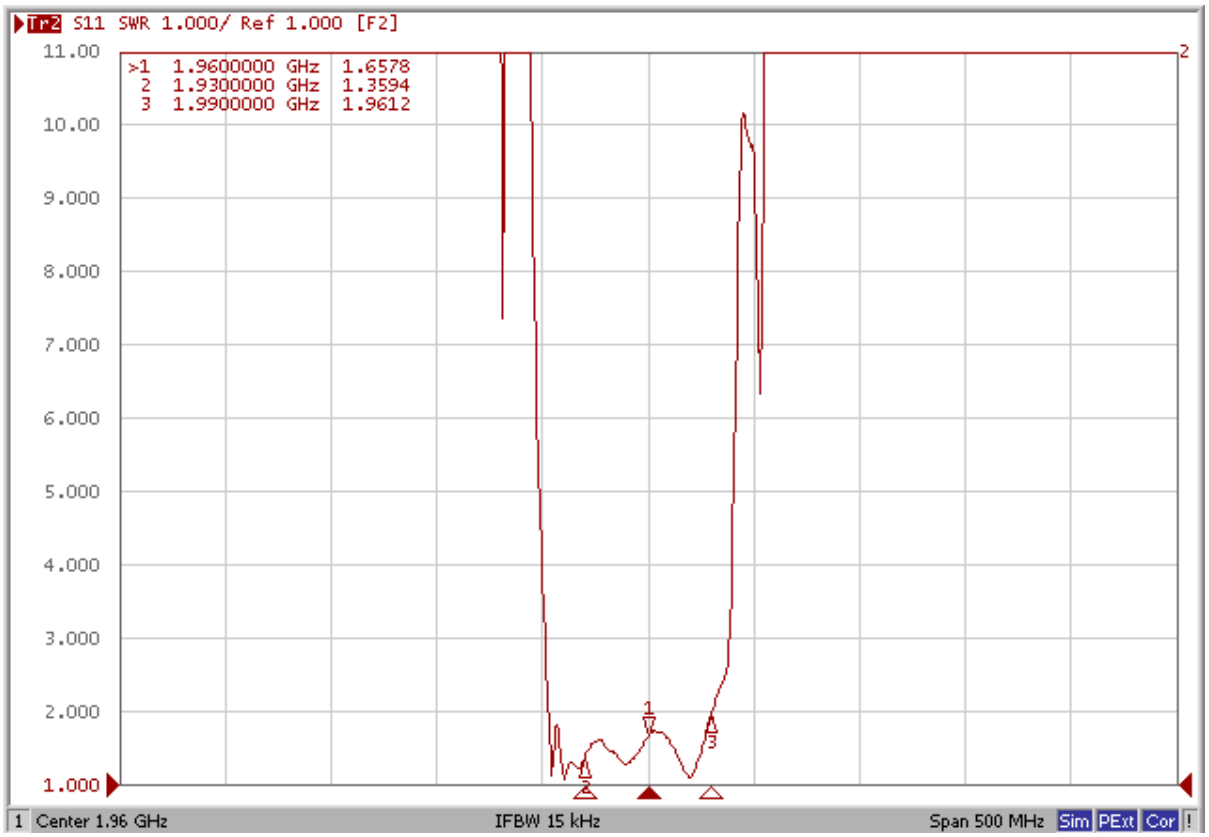
C. FREQUENCY CHARATERISTIC:

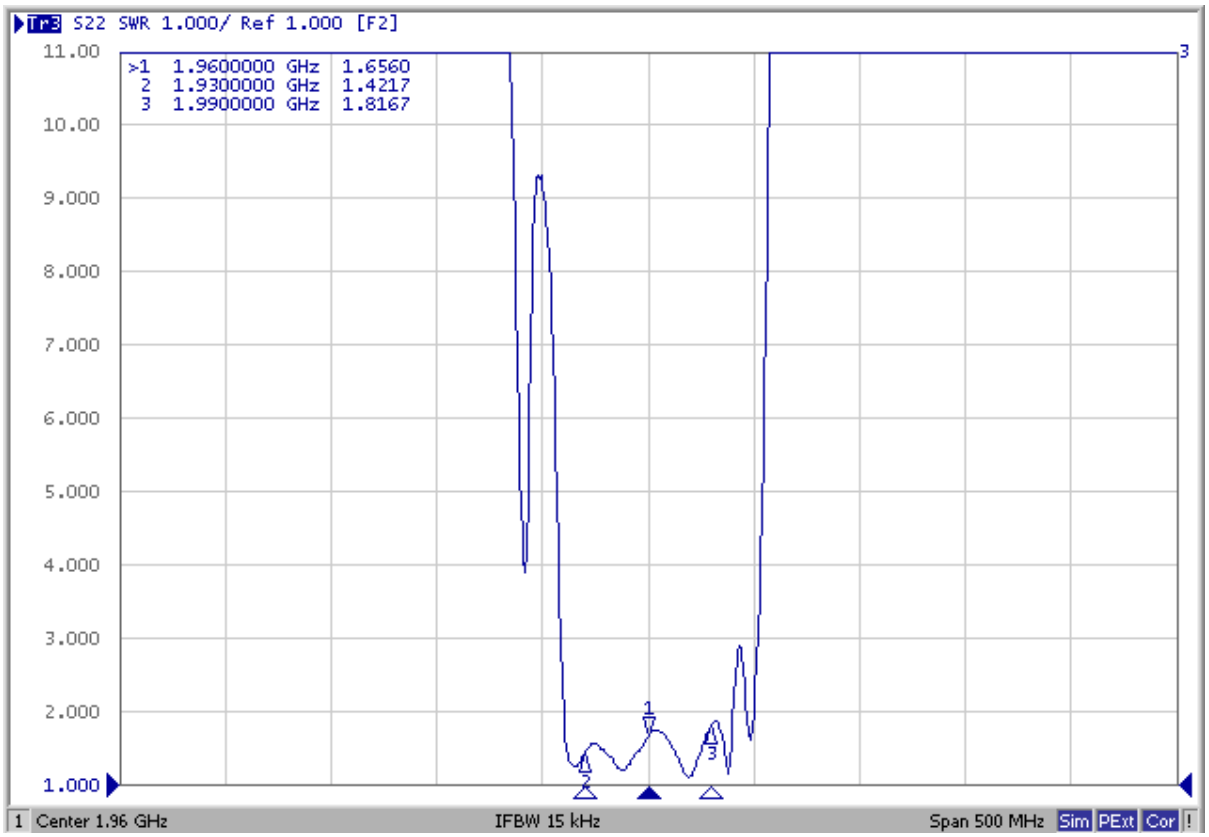
Frequency Response



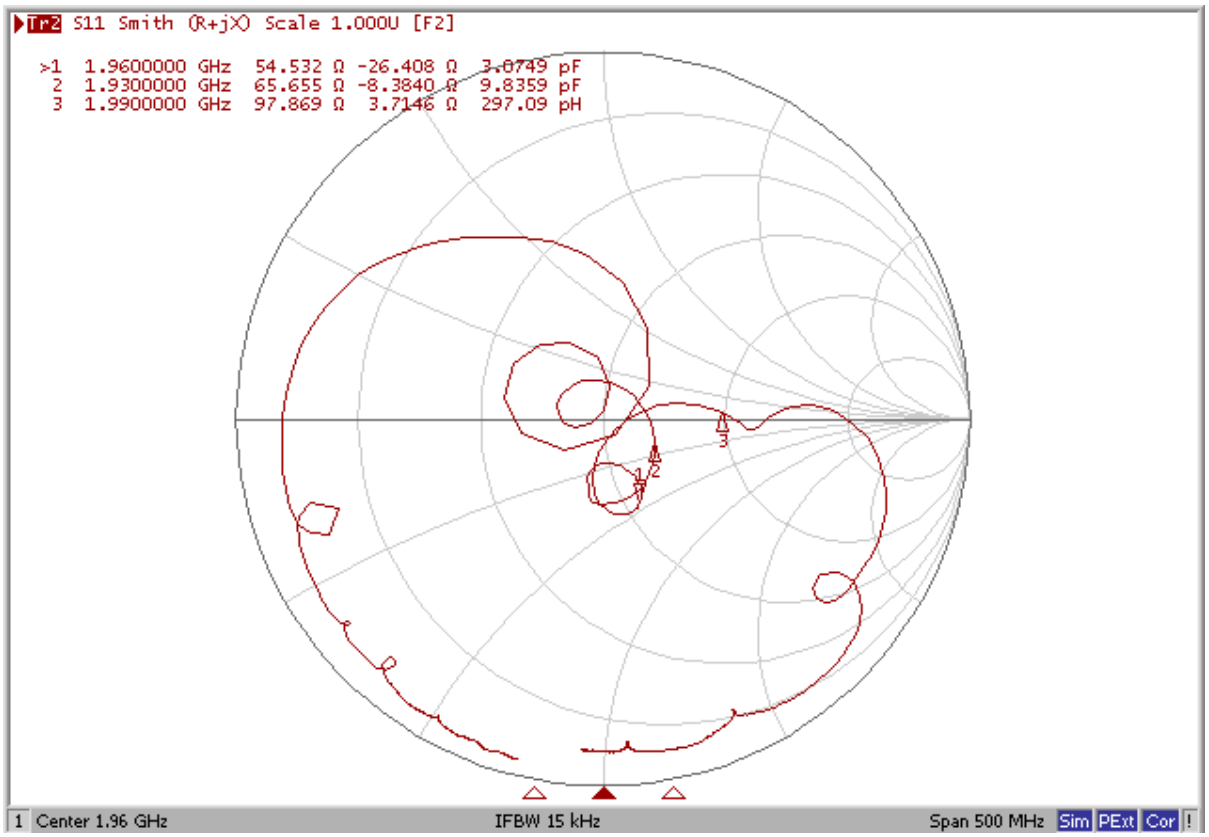


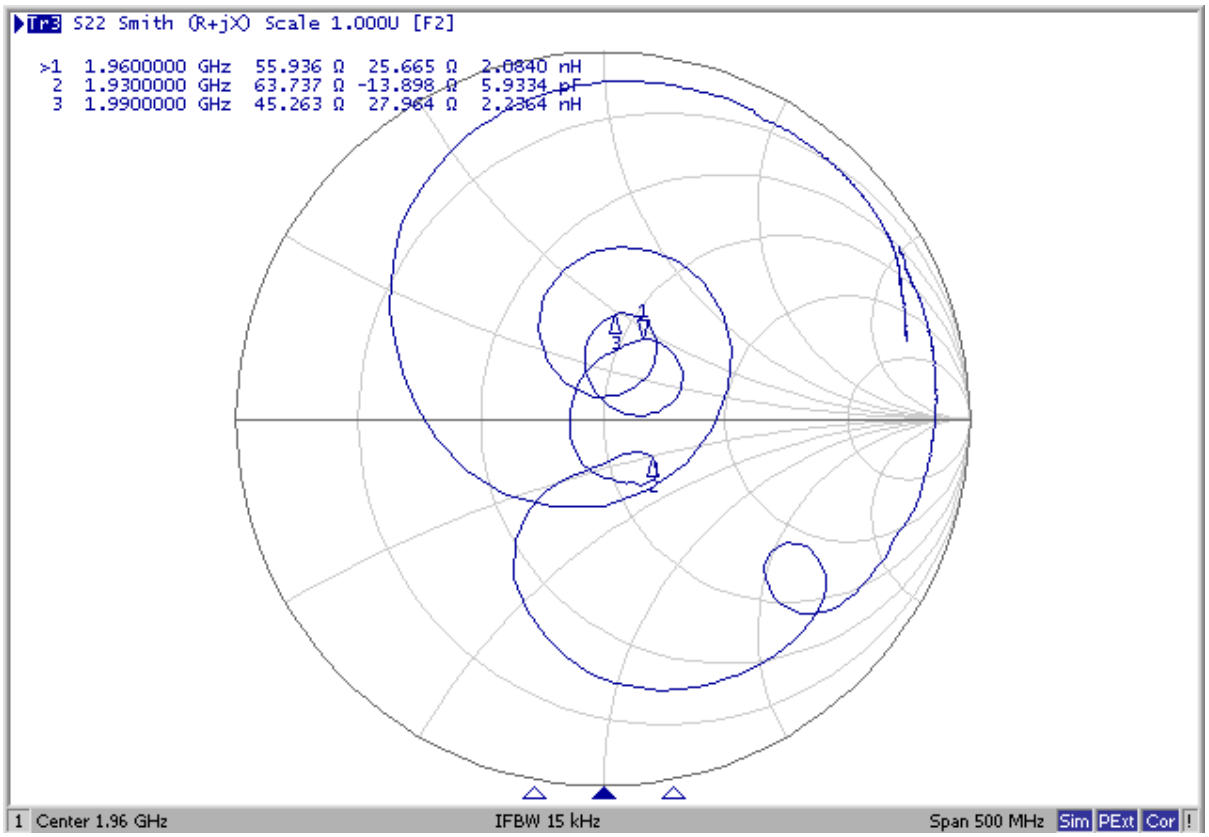
VSWR


Tr2 S11 SWR 1.000/ Ref 1.000 [F2]
>1 1.9600000 GHz 1.6578
2 1.9300000 GHz 1.3594
3 1.9900000 GHz 1.9612
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Center 1.96 GHz
IFBW 15 kHz
Span 500 MHz
Sim PExt Cor

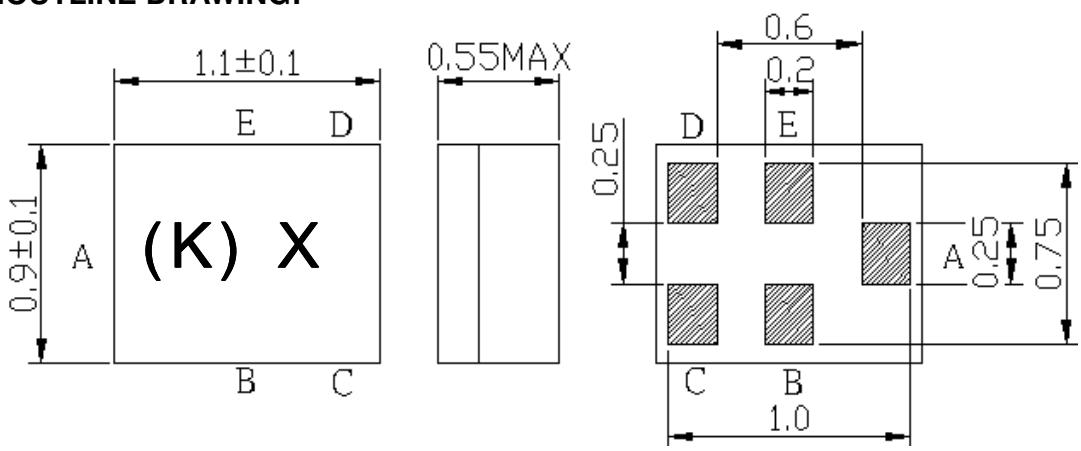

Tr3 S22 SWR 1.000/ Ref 1.000 [F2]
>1 1.9600000 GHz 1.6560
2 1.9300000 GHz 1.4217
3 1.9900000 GHz 1.8167
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
1 Center 1.96 GHz
IFBW 15 kHz
Span 500 MHz
Sim PExt Cor

Smith Chart


Tr2 S11 Smith (R+jX) Scale 1.000U [F2]
>1 1.9600000 GHz 54.532 Ω -26.408 Ω 3.0749 pF
2 1.9300000 GHz 65.655 Ω -8.3840 Ω 9.8359 pF
3 1.9900000 GHz 97.869 Ω 3.7146 Ω 297.09 pH
1 Center 1.96 GHz
IFBW 15 kHz
Span 500 MHz
Sim PExt Cor


Tr3 S22 Smith (R+jX) Scale 1.000U [F2]
>1 1.9600000 GHz 55.936 Ω 25.665 Ω 2.0840 nH
2 1.9300000 GHz 63.737 Ω -13.898 Ω 5.9334 pF
3 1.9900000 GHz 45.263 Ω 27.964 Ω 2.2364 nH
1 Center 1.96 GHz
IFBW 15 kHz
Span 500 MHz
Sim PExt Cor

D.OUTLINE DRAWING:



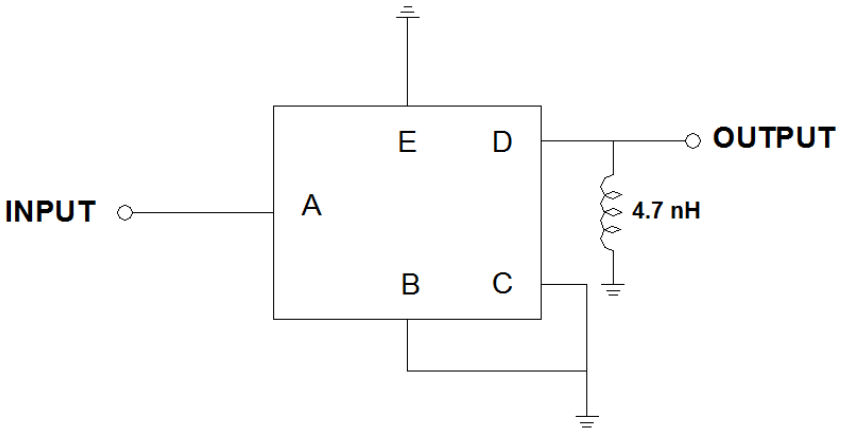
Marking Descriptions	
(K)	Series Number
X	Date Code(Year+Month)

Pin Description	
B, C , E	Ground
A	Input
D	Output

Date Code (year+month)

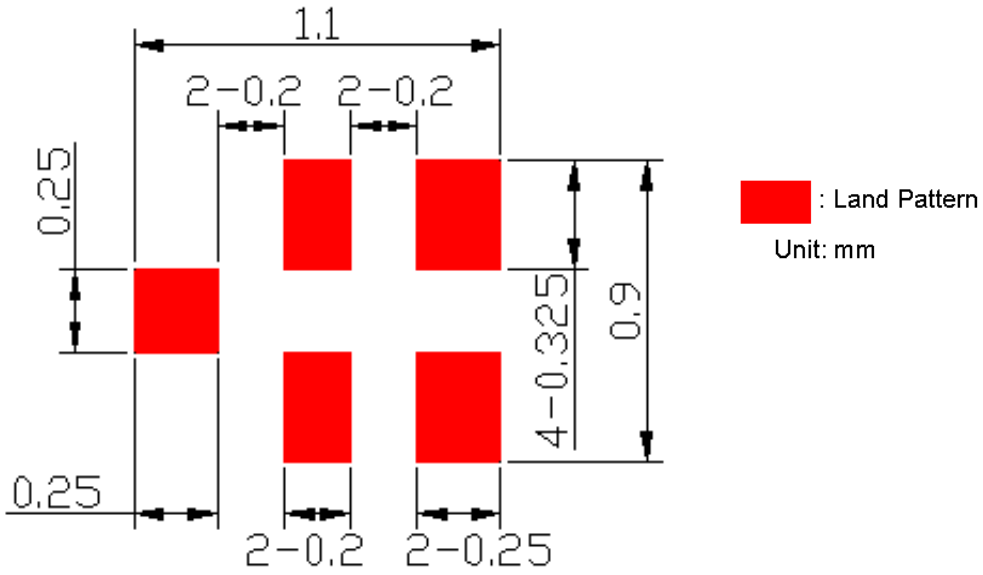
Year	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2013	A	B	C	D	E	F	G	H	J	K	L	M
2014	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	A	B	C	D	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	V	W	X	Y	Z
2019	a	b	c	d	e	f	g	h	j	k	l	m
2020	n	p	q	r	s	t	u	v	w	x	y	z

E. MEASUREMENT CIRCUIT:



Source & Load Impedance: 50 Ω

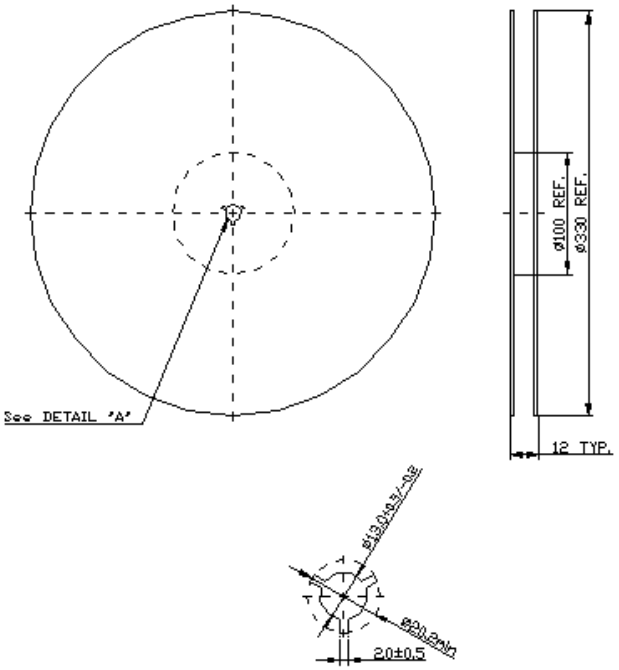
F. PCB FOOTPRINT:



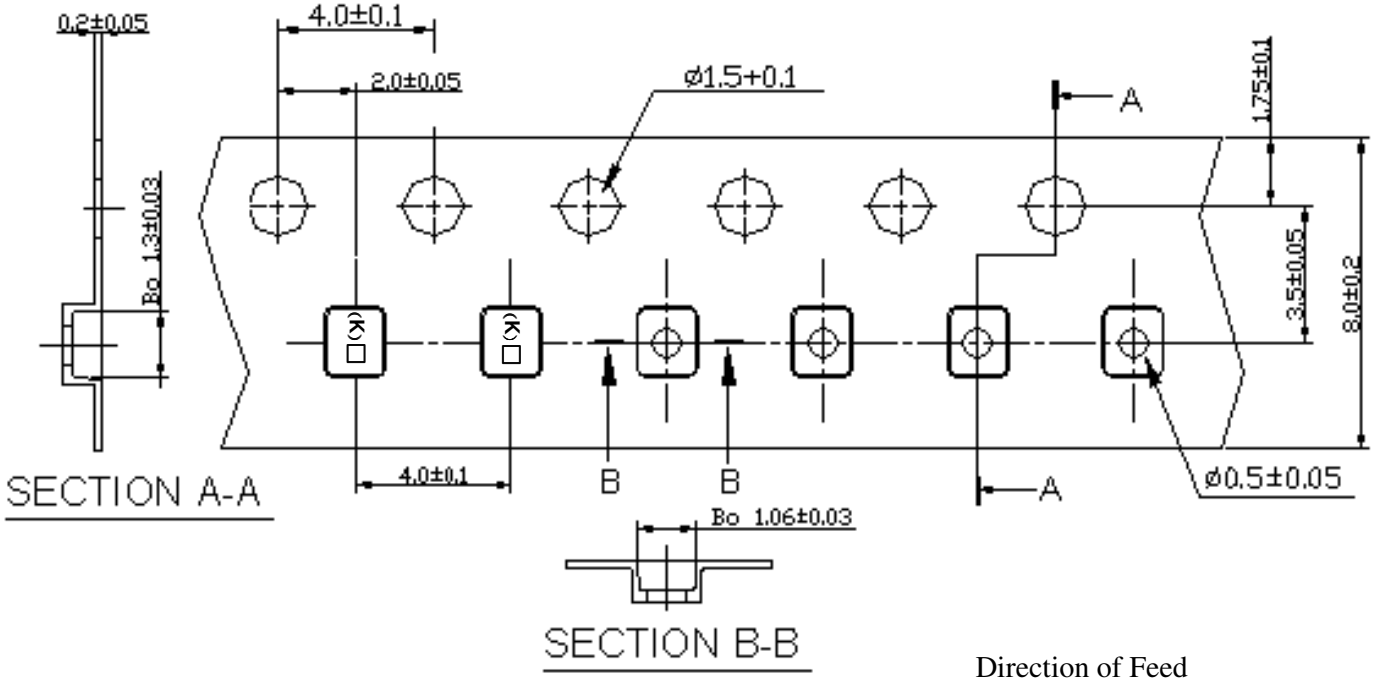
G. PACKING:

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.