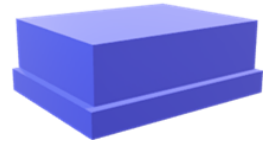


SF2609LM

**1960 MHz
SAW Filter**



SM1109

MAXIMUM RATING:

- Operating temperature range: -30 °C to +90 °C
- Storage temperature range: -40 °C to +100 °C
- Maximum Input Power: +15 dBm
- Maximum DC Voltage: +/-5 V
- Moisture Sensitivity Level: Level 1
- ESD 50V(MM) 100V(HBM)

ELECTRICAL CHARACTERISTICS:

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

Terminating load impedance: $Z_L = 100//27nH \Omega$ (Balanced)

Parameters Description		Unit	Min.	Typ.	Max.	Remarks	
Center Frequency		MHz	-	1960	-	-	
Insertion Loss	1930~1990 MHz	dB	-	2.8	3.7	at 1930.6~1989.4 MHz	
		dB	-	-	4.0	-	
Amplitude Ripple	1930~1990 MHz	dB _{p-p}	-	1.3	2.3	at 1930.6~1989.4 MHz	
		dB _{p-p}	-	-	2.6	-	
VSWR	Input	1930~1990 MHz	-	-	1.8	2.2	-
	Output	1930~1990 MHz	-	-	1.8	2.3	-
Amplitude balance (S ₂₁ / S ₃₁)		dB	-1.8	-1.0~+1.3	+1.8	-	
Phase balance (($\Phi_{S21} - \Phi_{S31}$)+180)		deg.	-15	-10~+5	+15	-	
Attenuation:							
10~1850 MHz		dB	40	51		-	
824~849 MHz		dB	50	62	-	-	
1850~1910 MHz		dB	40	44	-	-	
2020~2070 MHz		dB	15	20	-	-	
2070~6000 MHz		dB	35	42	-	-	

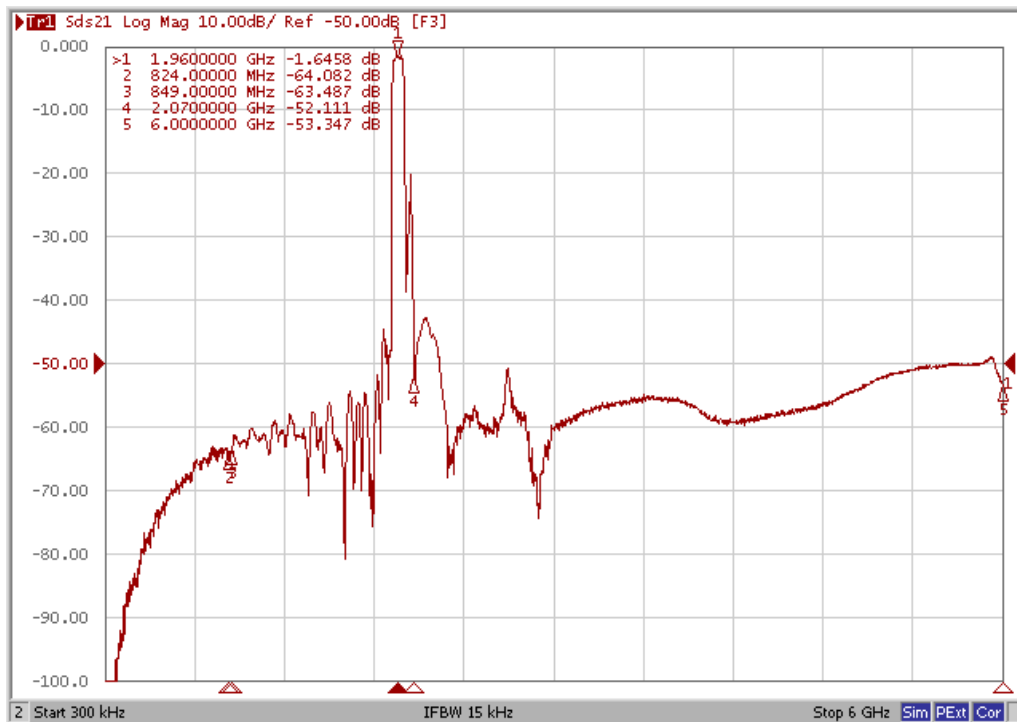
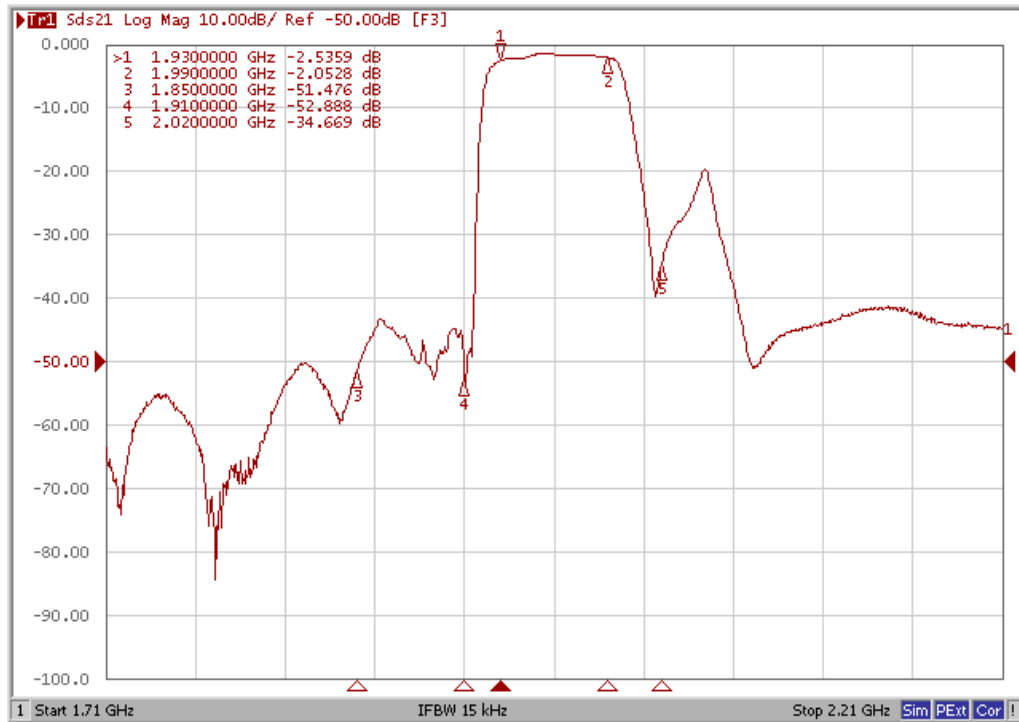
CAUTION: Electrostatic Sensitive Device. Observe precautions for handling.



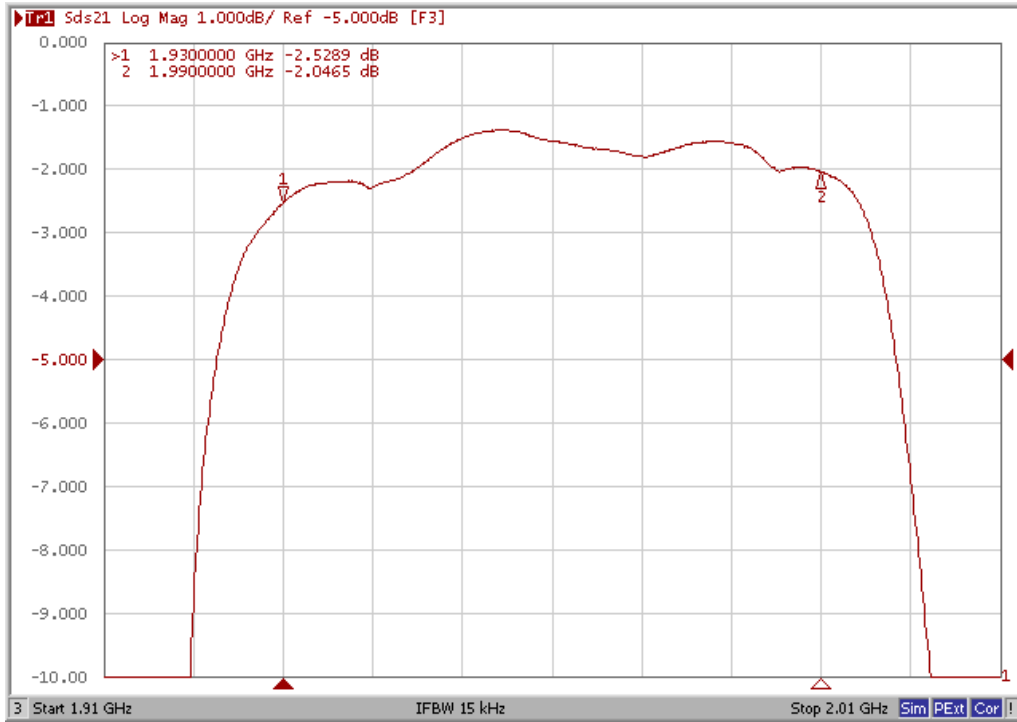
1. The design, manufacturing process, and specifications of this device are subject to change.
2. US or International patents may apply.
3. RoHS compliant from the first date of manufacture.

FREQUENCY CHARACTERISTICS:

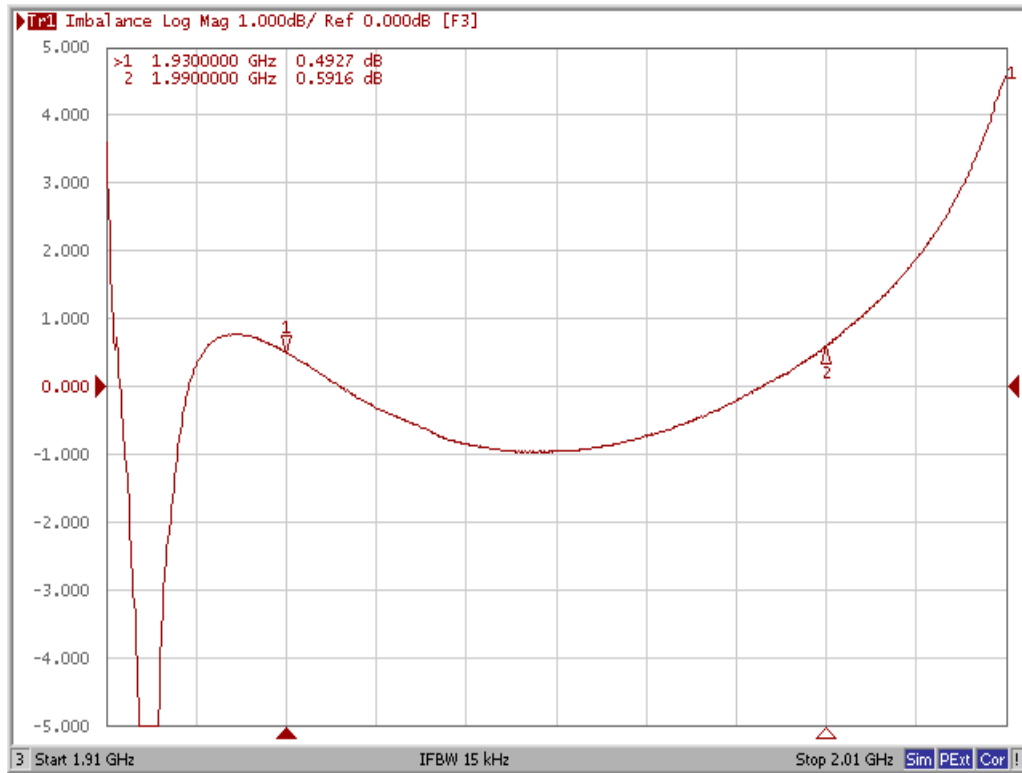
Frequency Response



Ripple



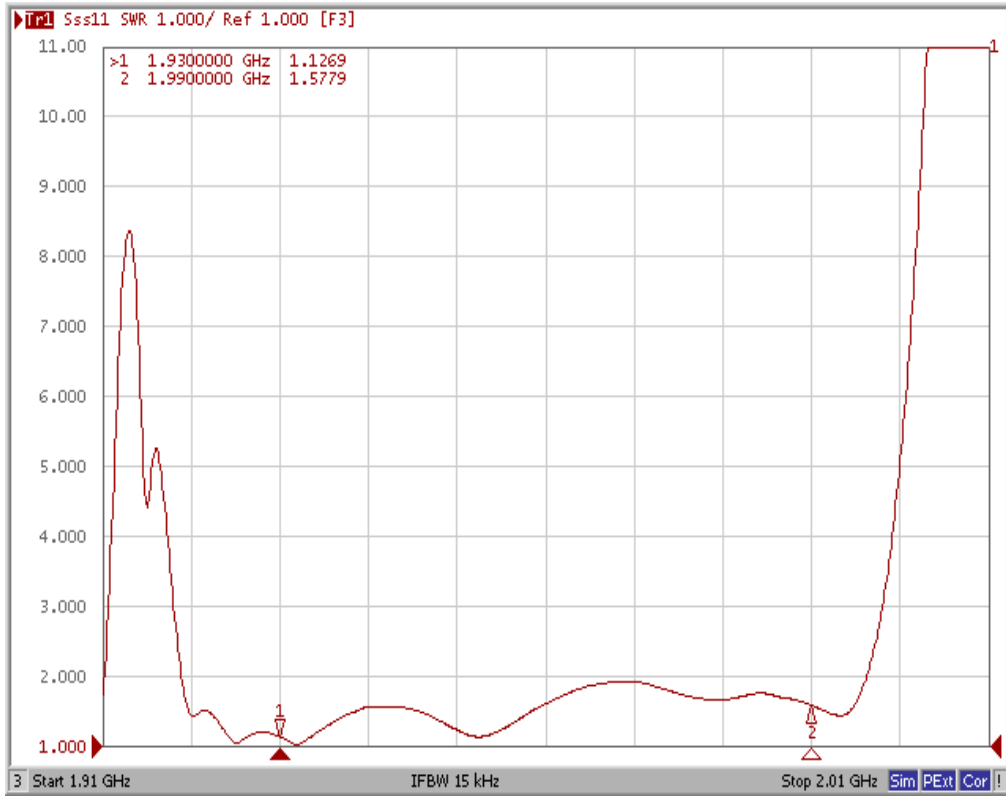
Amplitude balance



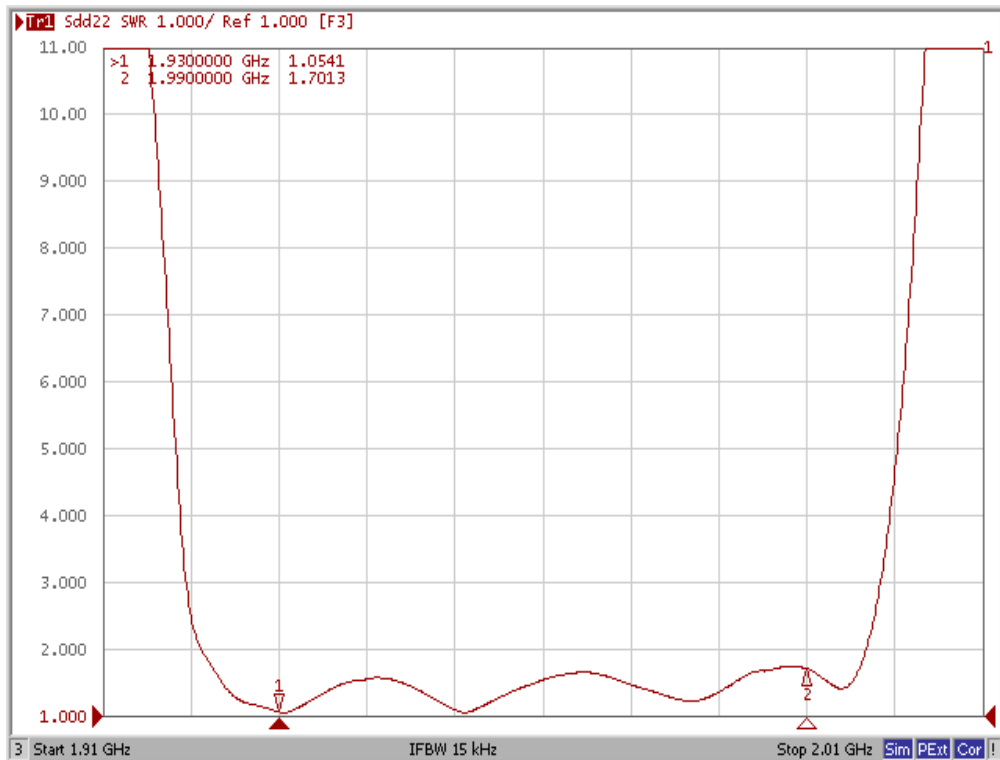
Phase balance



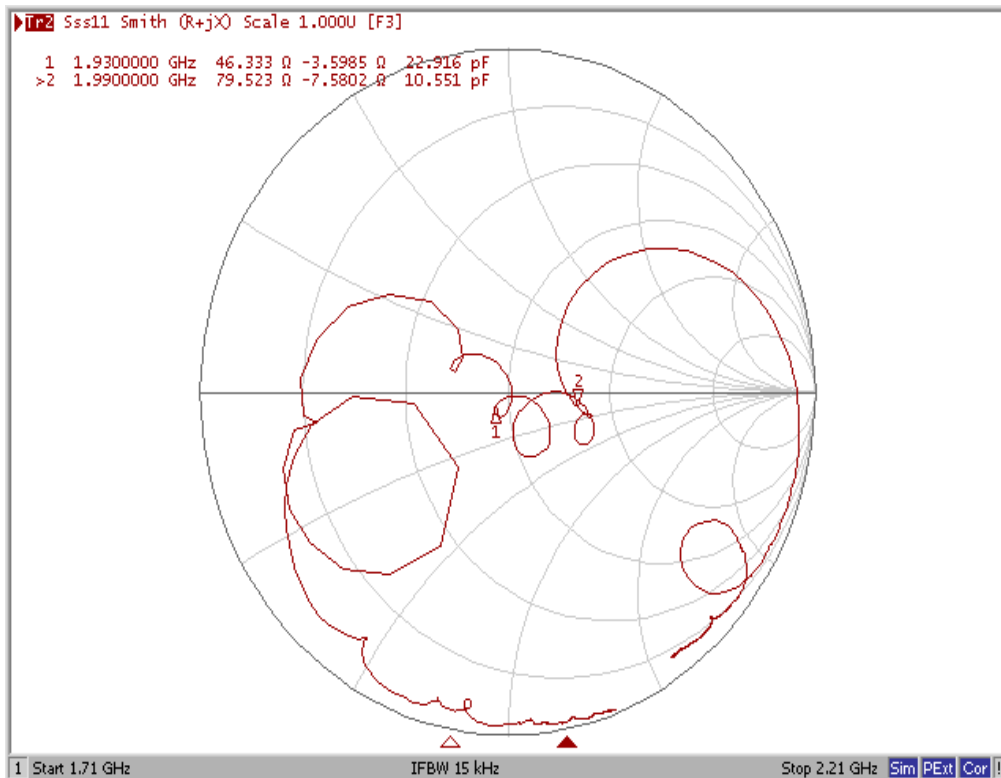
VSWR (S11)



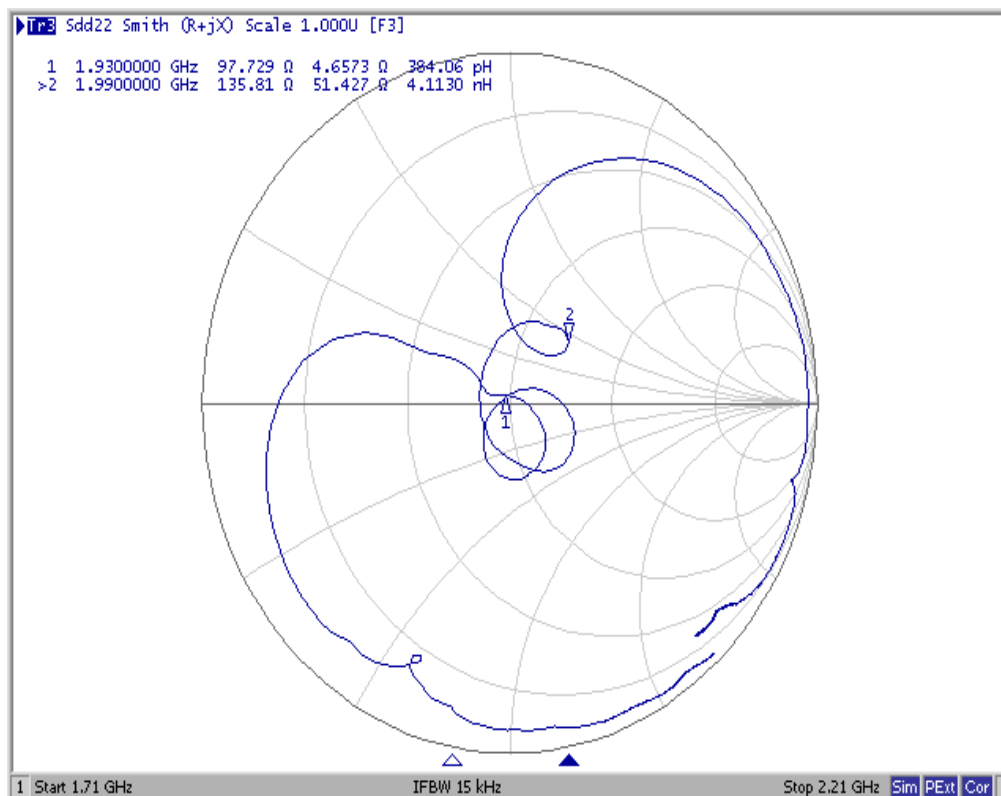
VSWR (S22)



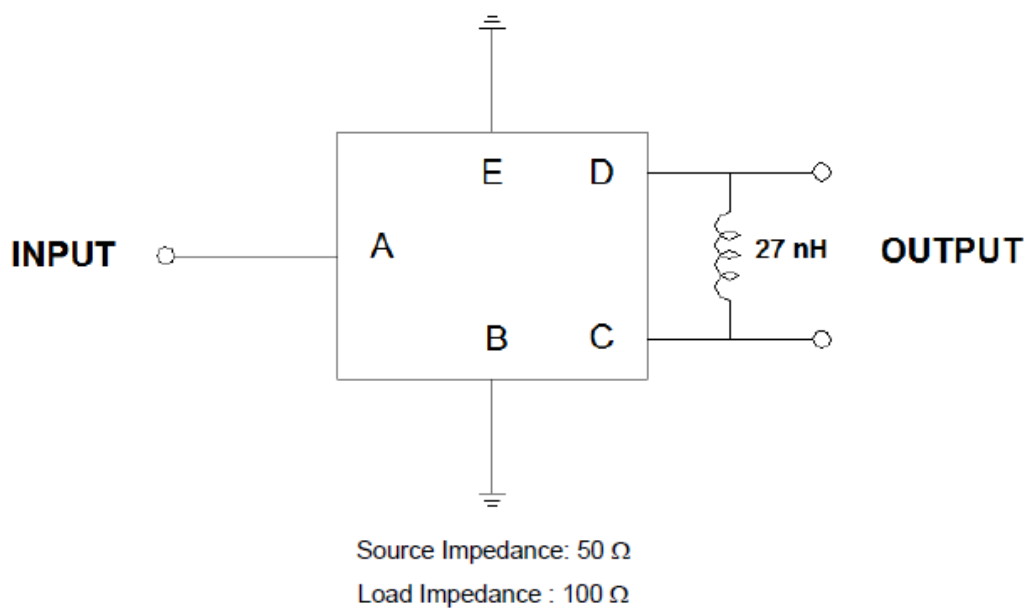
Smith Chart (S11)



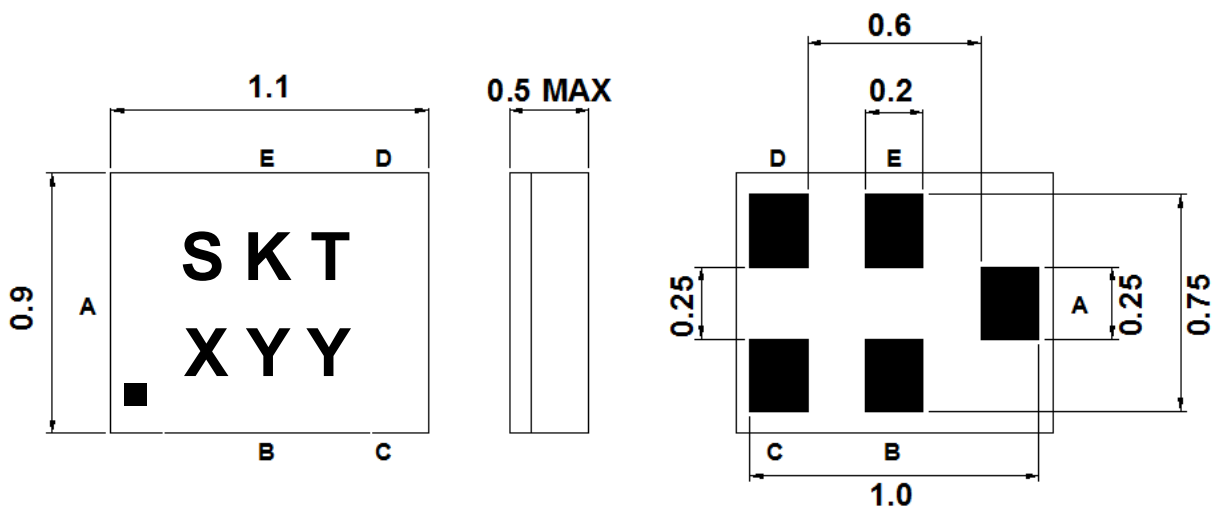
Smith Chart (S22)



MEASUREMENT CIRCUIT:



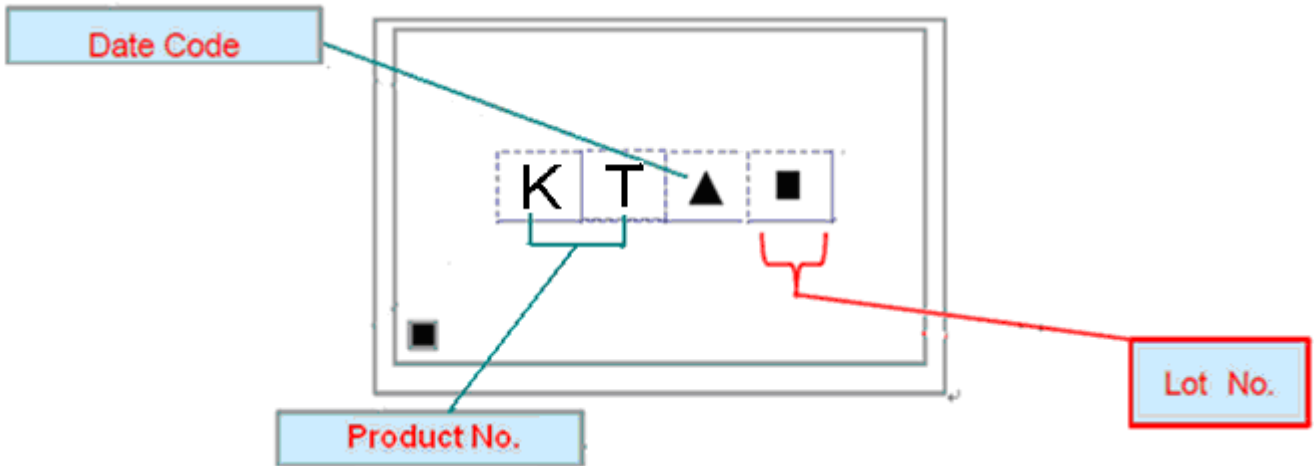
OUTLINE DRAWING:



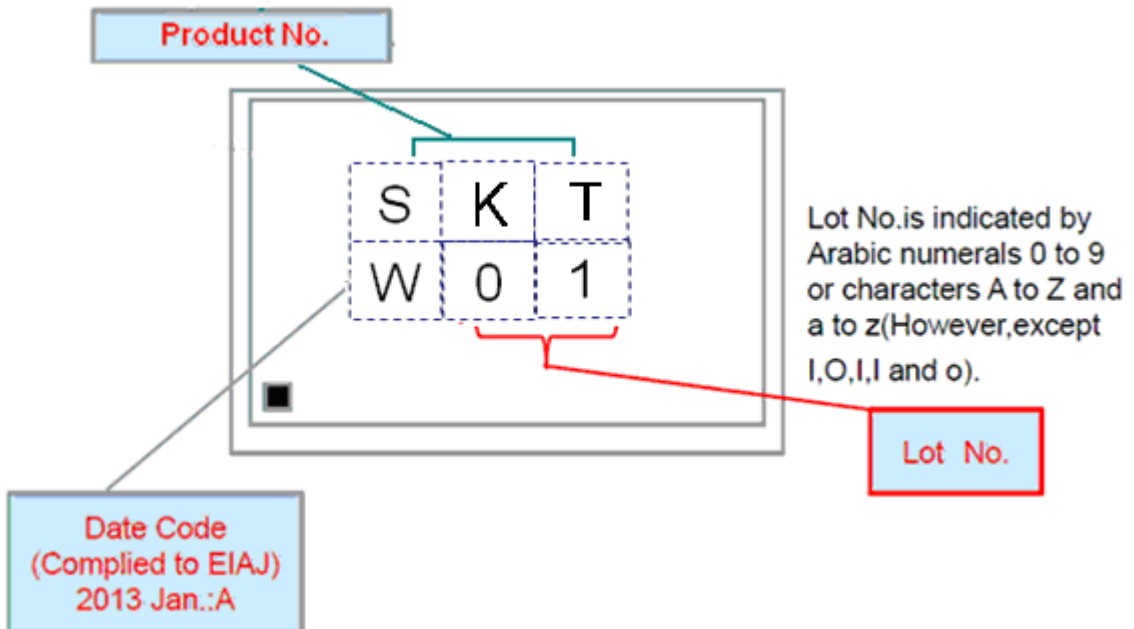
Marking Descriptions	
S	Product No 1
KT	Product No 2
X	Date Code(Year+Month)
YY	Lot No

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

Top View (Sample Production):



Top View (Mass Production):

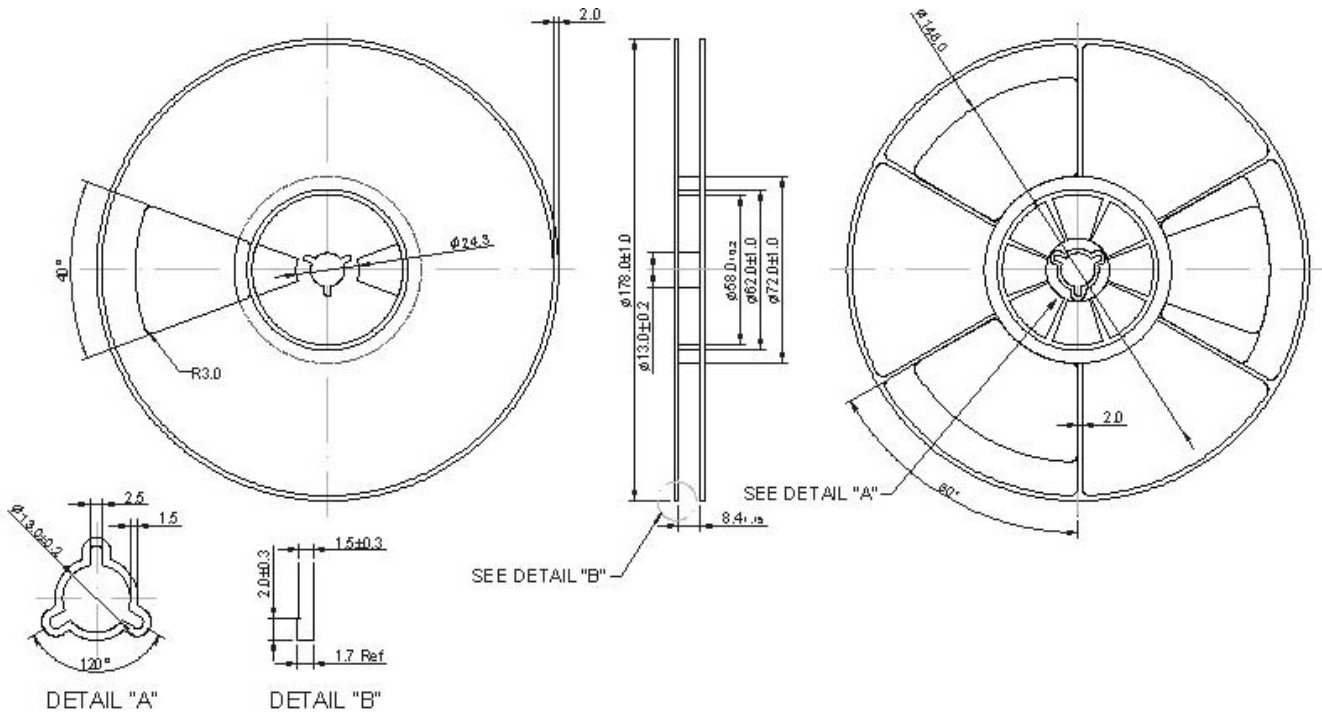


Product date Code (EIAJ):

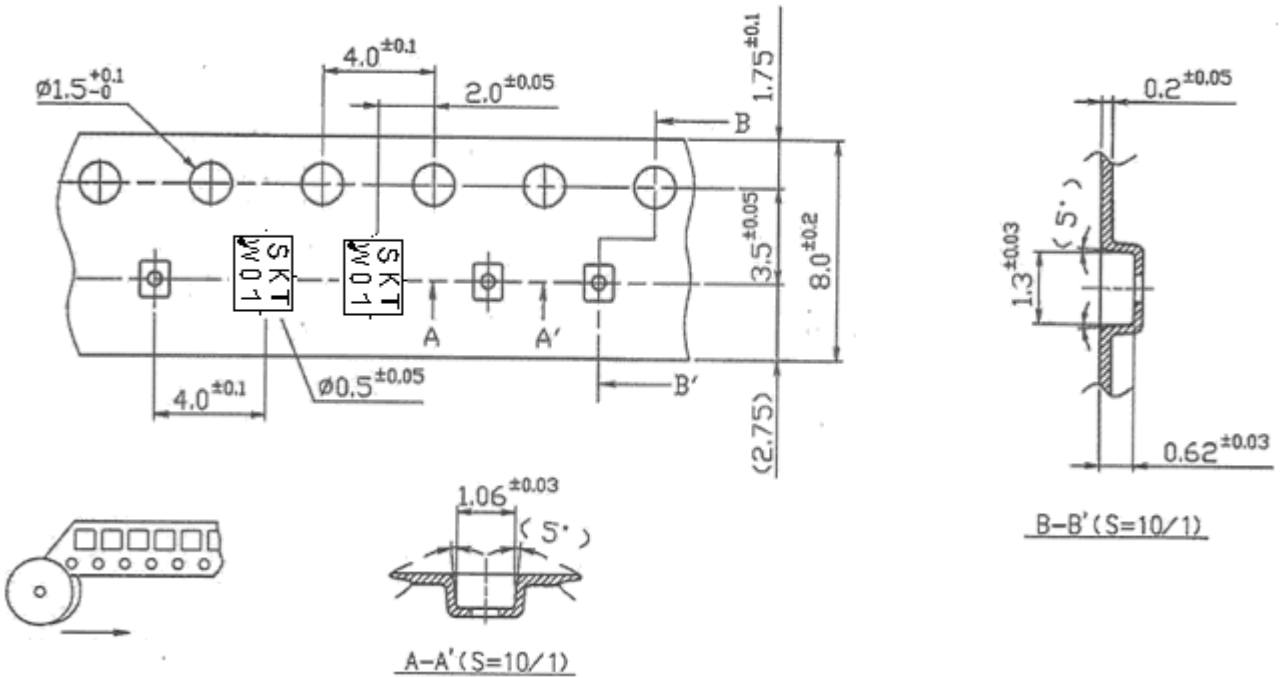
Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2015	a	b	c	d	e	f	g	h	j	k	l	m
2016	n	p	q	r	s	t	u	v	w	x	y	z
2017	A	B	C	D	E	F	G	H	J	K	L	M
2018	N	P	Q	R	S	T	U	V	W	X	Y	Z

**PACKING:
REEL DIMENSION**

Reel Count:
7" = 3000
13" = 10,000



TAPE DIMENSION



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.

