

# Datasheet of SAW Filter

## 1109 GNSS

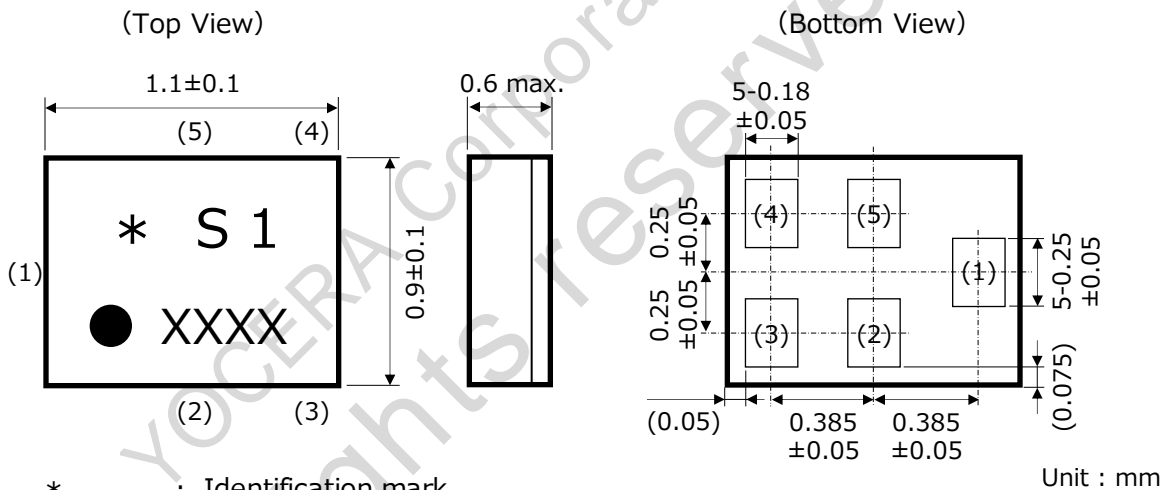
For GPS(L5) \_GALILEO(E5b)\_BEIDOU(B2b)

KYOCERA Part No. : SF11-1192M5UUA1

### Rating

Items		Rating	Unit	Note
Operating Temperature Range		-40 to +85	deg.C	
Storage Temperature Range		-40 to +85	deg.C	
Max Input Power In Band		15	dBm	5,000Hours, Ta=50deg.C, CW
ESD Level	Machine Model	50	Volt	Complied to JESD22-A115
Nominal Input Impedance		50//8.2nH	ohm	Unbalance
Nominal output Impedance		50//8.2nH	ohm	Unbalance

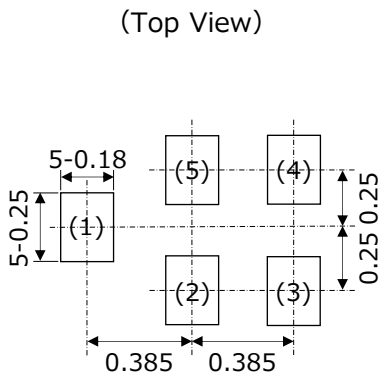
### Dimensions



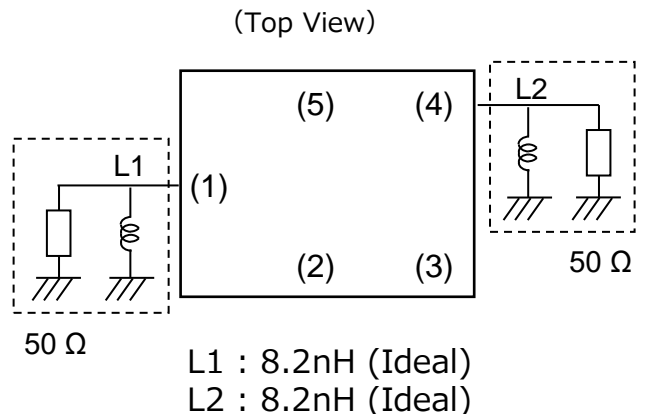
- \* : Identification mark
- S1 : Identification no.
- : Index mark of pin 1
- XXXX : Production code

Pin No.	Function
(1)	Input
(4)	Output
Others	GND

### Recommendable Land Pattern



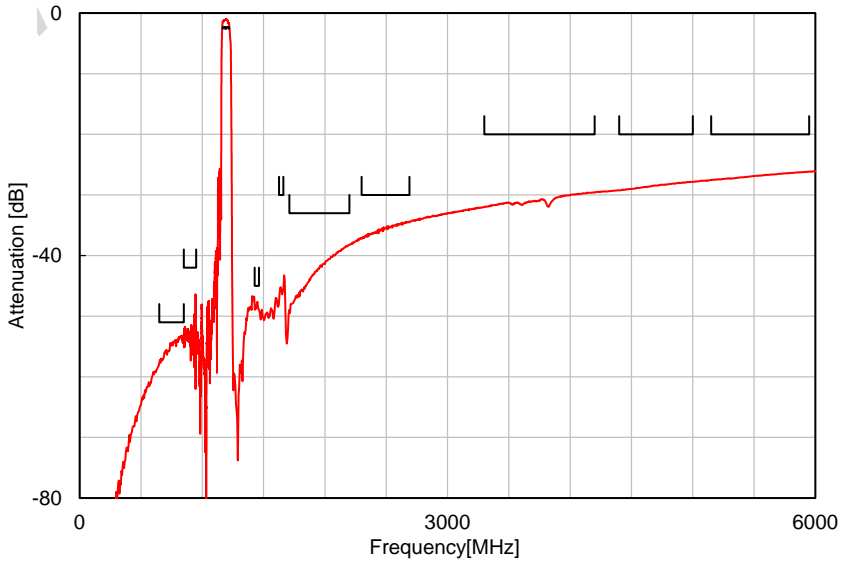
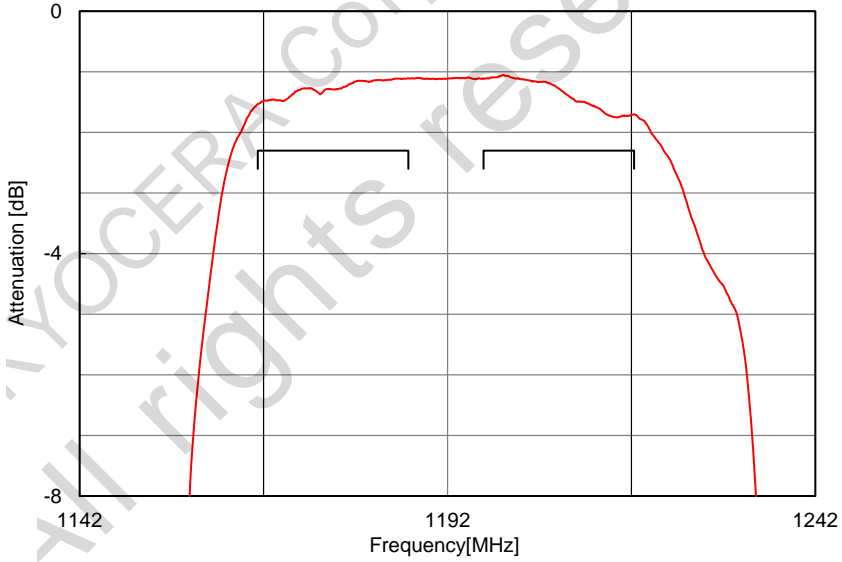
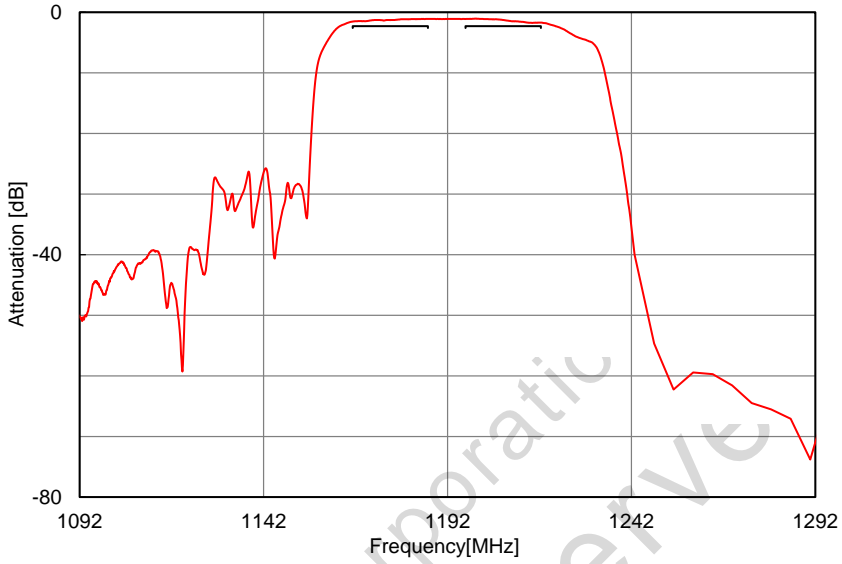
### Measurement Circuit



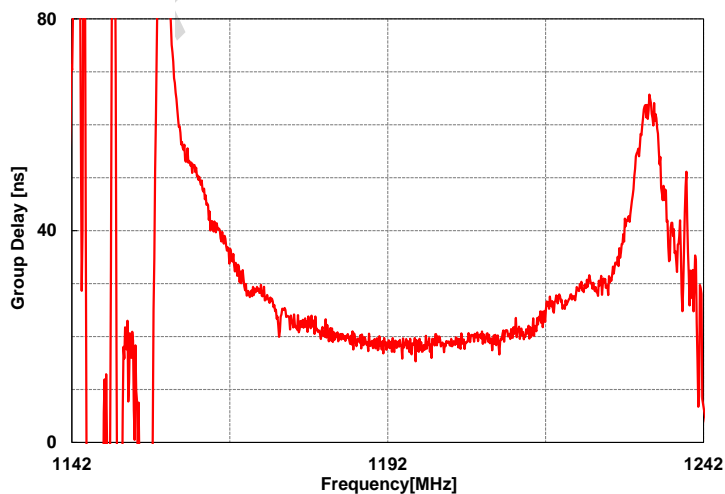
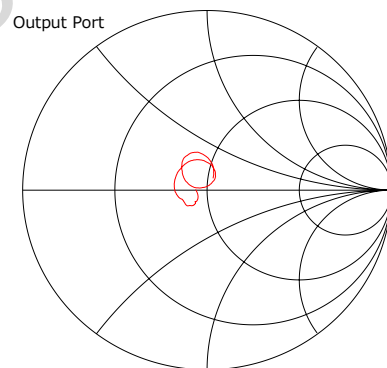
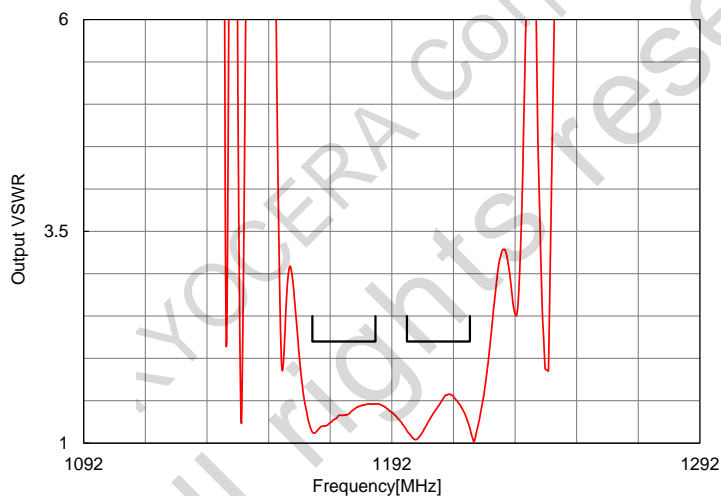
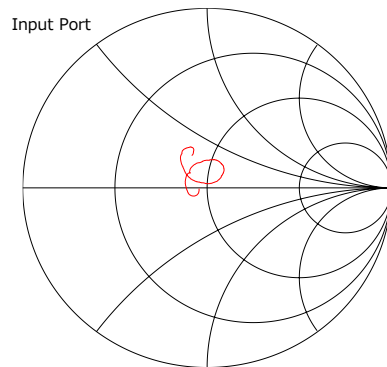
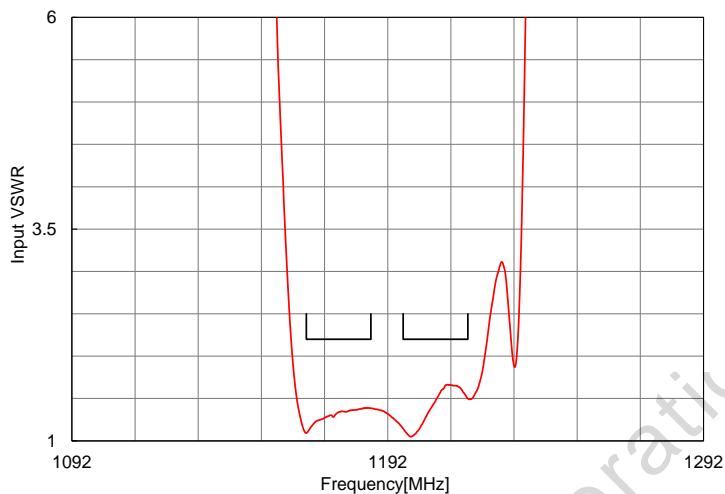
## Electrical Characteristics

ITEM	Frequency[MHz]	Unit	Kyocera Development Specification			Note	
			min	typ	max		
Insertion Loss	1166.22 - 1186.68	dB	-	1.3	2.3		
	1196.91 - 1217.37	dB	-	1.7	2.3		
GDT Ripple Deviation	1166.22 - 1186.68	ns	-	16	35		
	1196.91 - 1217.37	ns	-	10	25		
VSWR	In	1166.22 - 1186.68	-	-	1.3	2.2	
		1196.91 - 1217.37	-	-	1.5	2.2	
	Out	1166.22 - 1186.68	-	-	1.3	2.2	
		1196.91 - 1217.37	-	-	1.3	2.2	
Attenuation	650 - 850	dB	51	54	-		
	850 - 950	dB	42	48	-		
	850 - 950	dB <sub>INT</sub>	45	53	-	any 5MHz	
	1427 - 1463	dB	45	49	-		
	1626 - 1661	dB	30	45	-		
	1710 - 2200	dB	33	38	-		
	2300 - 2690	dB	30	34	-		
	3300 - 4200	dB	20	28	-		
	4400 - 5000	dB	20	26	-		
5150 - 5950	dB	20	25	-			

### Electrical Characteristics

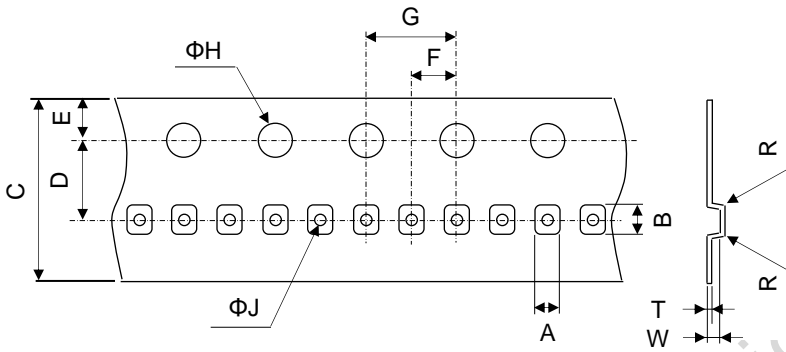


### Electrical Characteristics



### Tape & Reel Specification

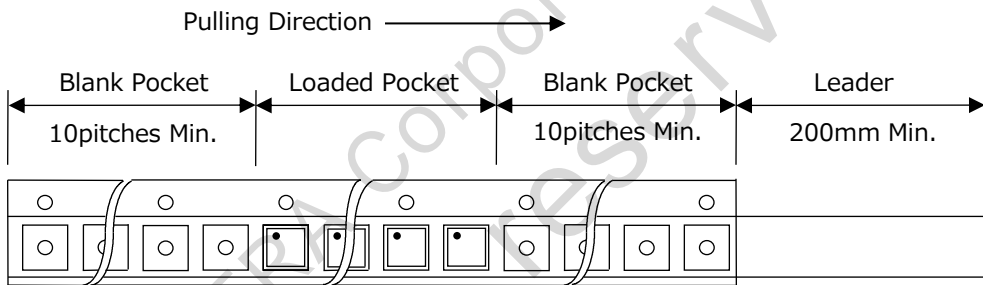
#### [Tape]



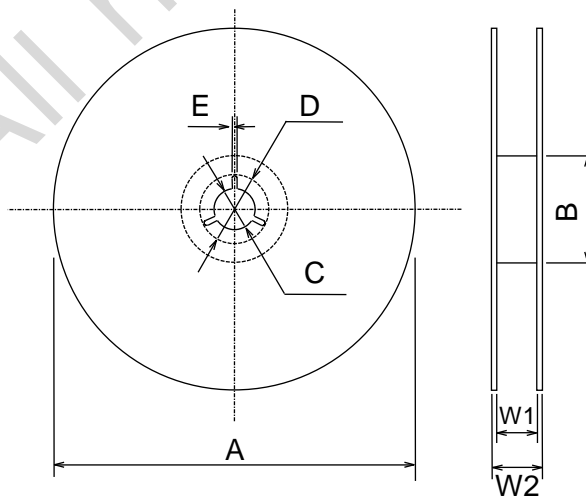
Unit : mm

Part	Dimension
A	1.1±0.05
B	1.3±0.05
C	8.0±0.1
D	3.5±0.05
E	1.75±0.1
F	2.0±0.05
G	4.0±0.05
φH	1.5+0.1/-0
φJ	0.50±0.05
R	0.1 Max
W	0.60±0.05
T	0.20+0.03/-0.02

W : Dimension is depth of pockets.



#### [Reel]



Part	A	B	C	D	Unit : mm
Dimension	180 +0/-1.5	60 +1.0/-0	13 ± 0.2	21 ± 0.8	
Part	E	W1	W2		
Dimension	2 ± 0.5	9.0 +1.0/-0	11.4 ± 1.0		

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