KYOCERA

THE NEW VALUE FRONTIER

1411 size Single SAW filter

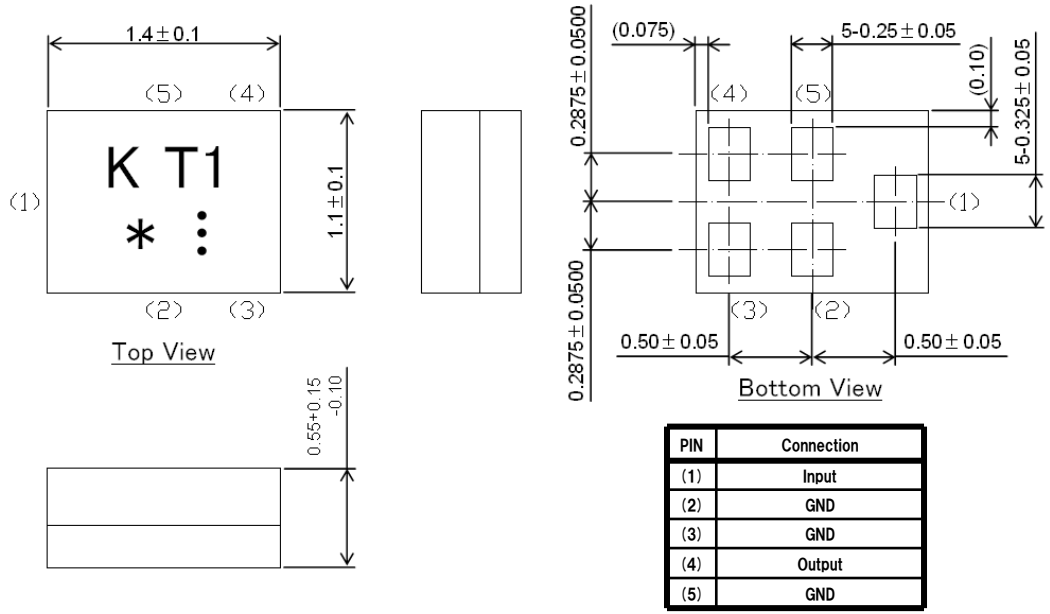
Type Name:SF14-0915M5UUA1

2012.05.15

KYOCERA Corporation
Circuit Device division
Kokubu Engineering Section

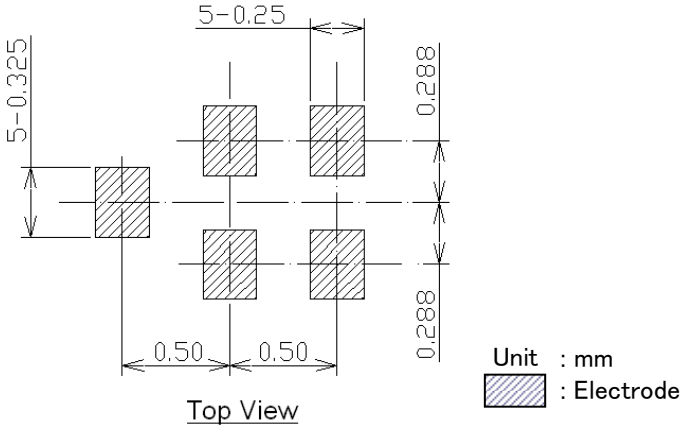
Dimensions

Dimensions



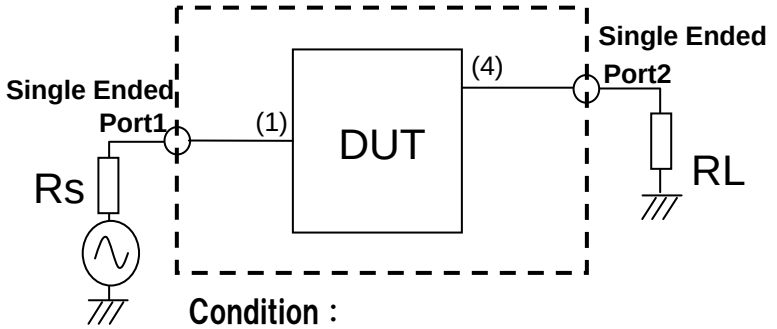
PIN	Connection
(1)	Input
(2)	GND
(3)	GND
(4)	Output
(5)	GND

Recommendable Land Pattern



Weight : 4mg max.
Unit : mm
The degree of terminal flat : 0.1mm max.
Terminal quality of the material : Ni Plating + Au Plating
K : Kyocera
T1 : Part Number
* : Monthly Code
⋮ : Weekly Code (1st–10th, 11th–20th, 21th–31th)

Measurement Circuit



Condition :
Rs = 50ohm
RL = 50ohm

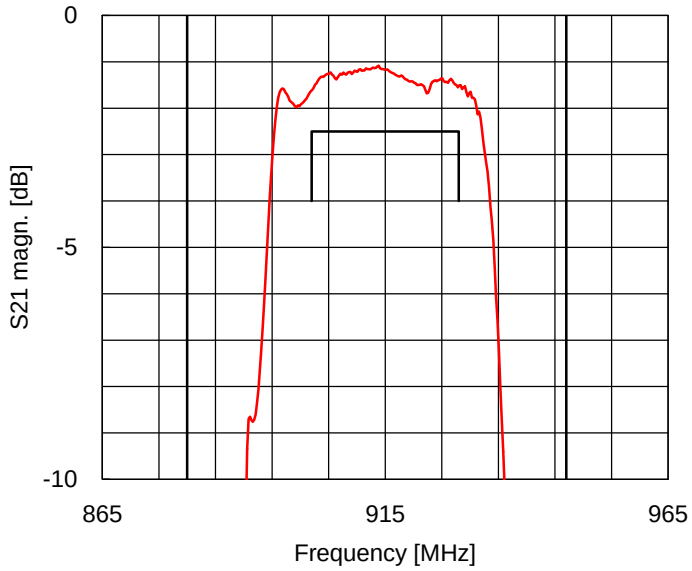
Characteristics

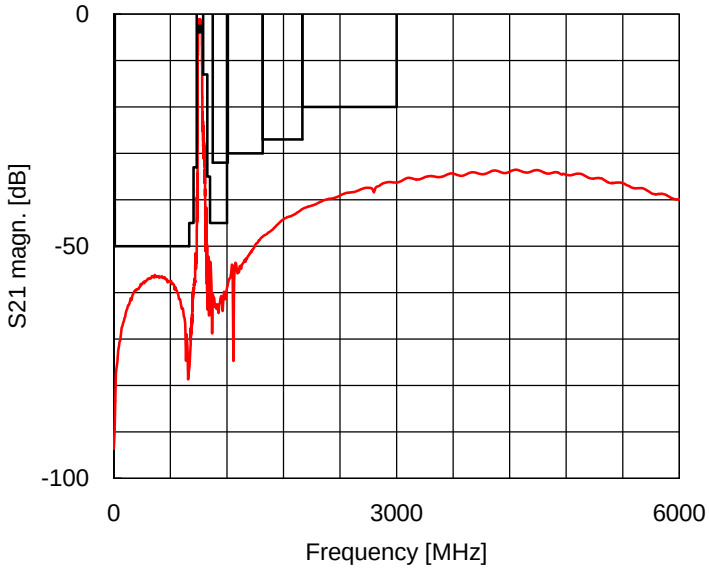
Type Name : SF14-0915M5UUA1

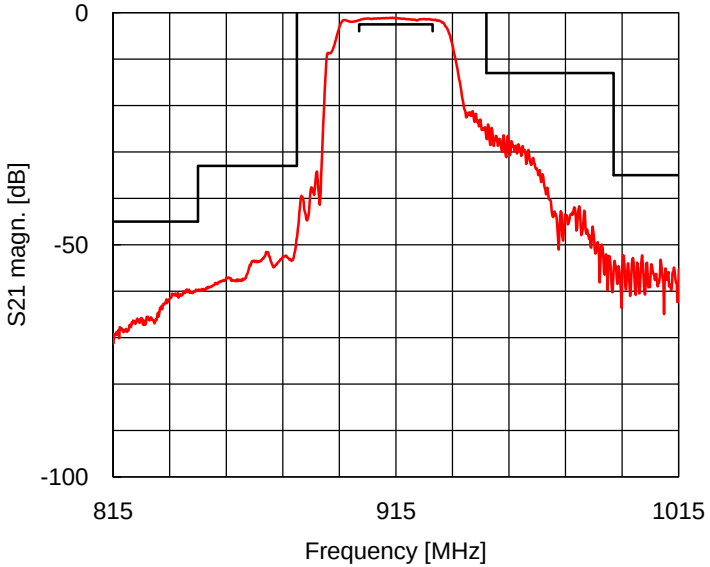
Table1

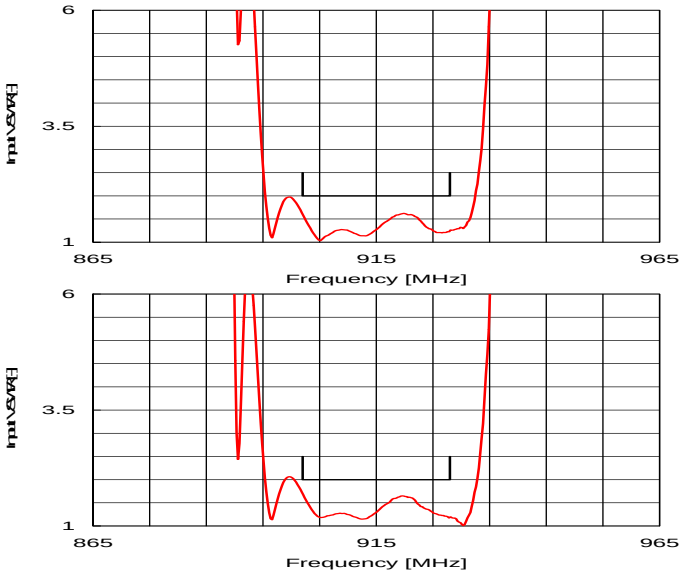
	Frequency Range				Unit	Tentative Spec.	typ.
Norminal Frequency	------				MHz	-	915
Maximum Insertion Loss	902	to	928	MHz	dB	3.0 max	1.8
Amplitude Ripple(P-P)					dB	1.8 max	0.5
Input VSWR						2.0 max	1.7
Output VSWR						2.0 max	1.7
Absolute Attenuation	0.3	to	800	MHz	dB	50 min	56
	800	to	845	MHz	dB	45 min	62
	845	to	880	MHz	dB	33 min	47
	947	to	992	MHz	dB	13 min	27
	992	to	1020	MHz	dB	35 min	53
	1020	to	1200	MHz	dB	45 min	53
Input Impedance					ohms	50	
Output Impedance					ohms	50	
Operating Temperature					deg.C	-30 to +85	
Package size					mm	1.4x1.1x0.55 typ.	

Typical Curve data (on Board)





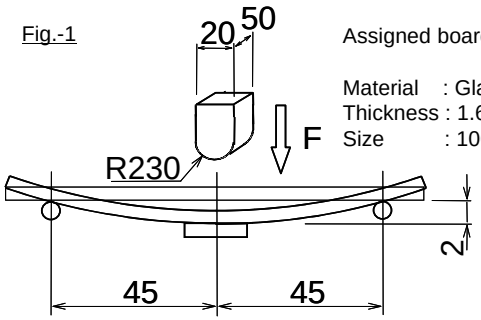




Environmental Characteristics

Item	Condition
Humidity Storage	Subject the filter to 60+/-2 deg C and 90%RH to 95%RH for 168 hours. Then, release the filter into the room conditions for 2 hours minimum to the measurement.It shall fulfill the specifications in Table 1.
High Temperature Storage	Subject the filter to 85+/-2 deg C for 168 Hours. Then, release the filter into the room conditions for 2 hours minimum to the measurement.It shall fulfill the specifications in Table 1.
Low Temperature Storage	Subject the filter to –40+/-2 deg C for 168 Hours. Then, release the filter into the room conditions for 2 hours minimum to the measurement.It shall fulfill the specifications in Table 1.
Temperature Cycle	10 Cycles (1 cycles:-40 deg C for 30minutes then 25 deg C for 15minutes then 85 deg C for 30minutes.) An examination is done under the evaluation circuit board mounting condition. Then, release the filter into the room conditions for 2 hours minimum to the measurement.It shall fulfill the specifications in Table 1.
Random Drop	Drop the filter randomly onto a concrete floor from the height of 1m,3 times. It shall fulfill the specifications in Table 1.
Mechanical Shock	Subject the filter to 10 shocks in each direction of six mutually perpendicular planes (a total of 60 shocks). Drop the filter onto a concrete floor with the weight of 150g and from the height of 1.7m. It shall fulfill the specifications in Table 1.
Vibration	Subject the filter to vibration for 2hour each in the X,Y and Z axes with the amplitude of 1.5mm,10 to 55 Hz/min. It shall fulfill the specifications in Table 1.
Resistance to Reflow Solder Heat	Expose filter to increasing temperature with Recommendable Reflow Soldering Profile,twice.Then 110 deg C for 35minutes are performed. Then, release the filter into the room conditions for 2 hours minimum to the measurement.It shall fulfill the specifications in Table 1.
Circuit Board Deflection	It is mounted on the circuit board for the evaluation, and the center of the circuit board is pushed from the product mounting side and the anti-interview, and a circuit board is made to sag 2mm.It carried out 3 times in X and the direction of Y,respectvely. (Fig.-1)
ESD	A direct current voltage is increased to DEVICE mounted on the evaluation circuit board. The failure rate which occurred by the direct current voltage is investigated.A direct current voltage begins from 39V. As for the voltage,it increses with step of E12 series.A failure voltage is prescribed in the direct current voltage that an accumulate trouble rate is 10%.It is judged with the trouble when increase in the insertion loss occurs beyond 0.3dB before and after the examination.A failure voltage is more than 50V.(Fig.-2)

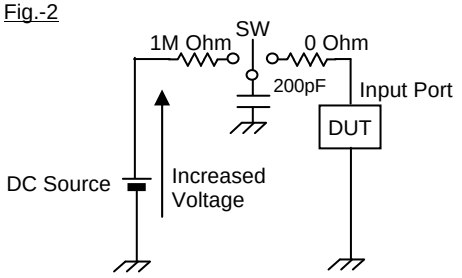
Fig.-1



Assigned board

Material : Glass Epoxy
Thickness : 1.6mm
Size : 100x40mm

Fig.-2



ESD TEST Circuit(Machine Model)

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