Datasheet of SAW Device

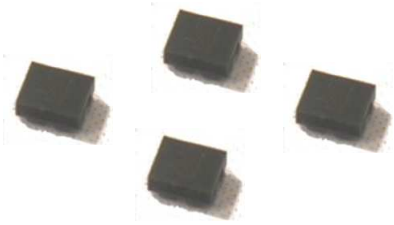
SAW Dual Filter

for Band1_Band3 / 1in2out Unbalanced / LH /1511

Murata PN: SAWFD1G84AA0F0A

■ Feature

- CA



Note : This Murata SAW Component is Consumer grade product and applicable for Cellular phone or similar end devices.
Please also read Important Notice at the end of this document.

Revision
H

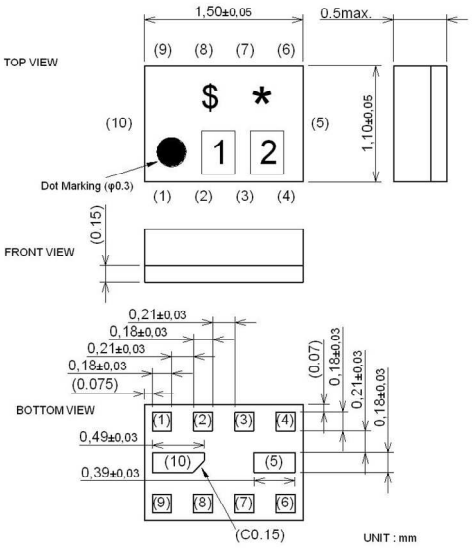
SAWFD1G84AA0F0A (Band1_Band3 / 1in2out Unbalanced / LH / 1511)

- Operating temperature : -20 to +85 deg.C
- Storage temperature : -40 to +85 deg.C
- Input Power : +13 dBm 2000 h
- D.C. Volatage between the terminals : 3V (25+/-2 deg.C)
- Minimum Resistance between the terminals : 10M ohm
- RoHS compliance : Yes
- ESD (ElectroStatic Discharge) sensitive device

Package Dimensions & Recommended Land Pattern

unit: mm

Dimensions

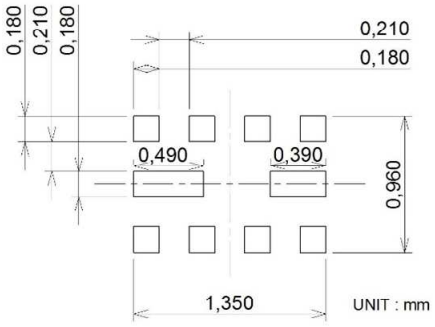


Marking : Laser Printing
* : Month code
$: Date code
1 : 0
2 : J

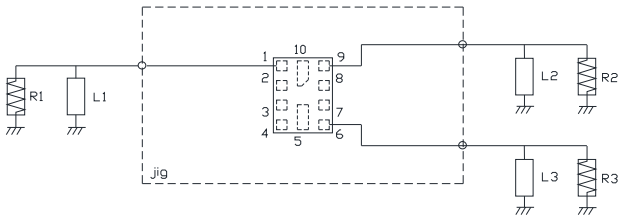
Terminal Number
(1) : Unbalanced port-Lch/Hch
(9) : Unbalanced port-Lch
(6) : Unbalanced port-Hch
Others : GND

Notice) Please refer to Measurement Circuit for Port information in detail.

Land Pattern



Measurement Circuit (Top Thru View)



(Lch)

(Hch)

R1 : 50 ohm	L1 :3.9nH(Ideal inductor)
R2 : 50 ohm	L2 :15nH(Ideal inductor)
R3 : 50 ohm	L3 :15nH(Ideal inductor)

Electrical Characteristic < Low Freq. Filter >

Low Freq. Filter					Characteristics (-20 to +85 deg.C)			Unit	Note
					min.	typ.*	max.		
Center Frequency						1842.5		MHz	
Insertion Loss	1805.	to	1880.	MHz		2.3	3.5	dB	
	1805.	to	1880.	MHz		2.3	3.1	dB	+23 to +27deg.C
	1807.5	to	1877.5	MHz		2.2	3.5	dB_{INT}	Any 4.5MHz
Ripple Deviation	1805.	to	1880.	MHz		0.4	1.5	dB	Any 5MHz
VSWR	1805.	to	1880.	MHz		1.6	2.0		
Absolute Attenuation	1.	to	1710.	MHz	27	35		dB	
			95.	MHz	50	37		dB	Rx-Tx
	824.	to	849.	MHz	39	44		dB	B5Tx
	832.	to	862.	MHz	38	44		dB	B20Tx
	880.	to	915.	MHz	37	43		dB	B8Tx
	1615.	to	1690.	MHz	32	38		dB	2Tx-Rx
	1710.	to	1785.	MHz	36	42		dB	Tx
	1710.	to	1785.	MHz	38	42		dB	+23 to +27deg.C
	1712.5	to	1782.5	MHz	36	44		dB_{INT}	Any 4.5MHz
	1785.	to	1790.	MHz	1.0	35.0		dB	(Rx+Tx)/2
	1920.	to	1980.	MHz	39	43		dB	B1Tx
	1920.	to	6000.	MHz	26	32		dB	
	2400.	to	2500.	MHz	36	42		dB	2.4GHz ISM
	2500.	to	2570.	MHz	32	38		dB	B7Tx
	3515.	to	3610.	MHz	36	42		dB	Rx+Tx
	3610.	to	3760.	MHz	35	41		dB	2f
	3760.	to	13025.	MHz	14	20		dB	
	4900.	to	5950.	MHz	26	32		dB	5GHz ISM
	5225.	to	5415.	MHz	27	33		dB	Rx+2Tx
	5415.	to	5640.	MHz	27	33		dB	3f
	7220.	to	7520.	MHz	24	30		dB	4f
	9025.	to	9400.	MHz	24	30		dB	5f
	10830.	to	11280.	MHz	25	31		dB	6f
	12635.	to	12750.	MHz	15	21		dB	7f

* Typical value at 25±2deg.C

SAWFD1G84AA0F0A (Band1_Band3 / 1in2out Unbalanced / LH / 1511)

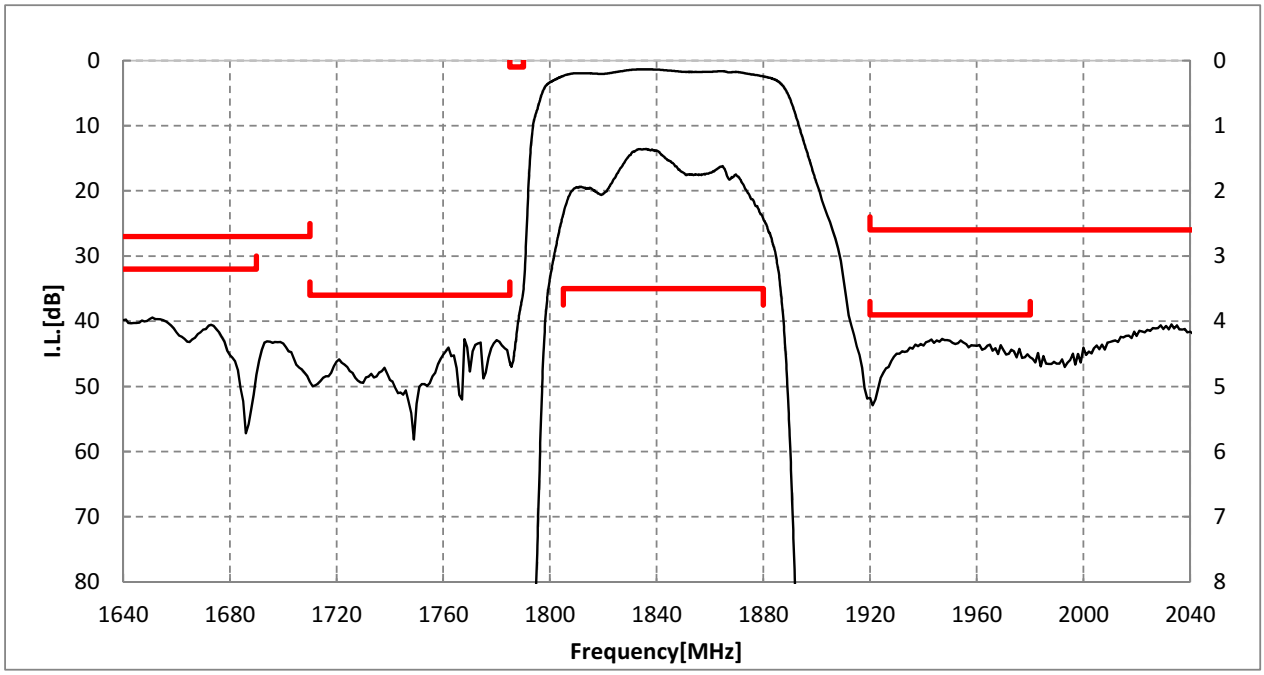
Electrical Characteristic < High Freq. Filter >

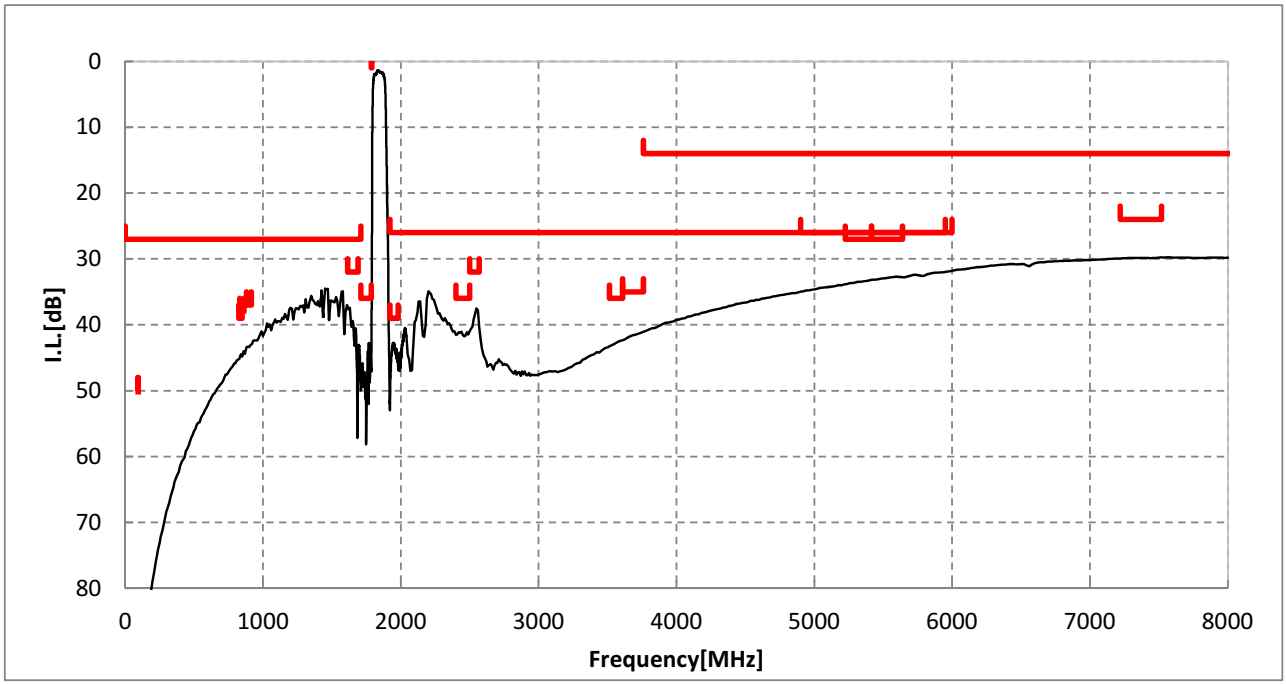
High Freq. Filter					Characteristics (-20 to +85 deg.C)			Unit	Note
					min.	typ.*	max.		
Center Frequency						2140		MHz	
Insertion Loss	2110.	to	2170.	MHz		1.9	2.9	dB	
	2110.	to	2170.	MHz		1.9	2.5	dB	+23 to +27deg.C
	2112.5	to	2167.5	MHz		1.8	2.9	dB_{INT}	Any 4.5MHz
Ripple Deviation	2110.	to	2170.	MHz		0.1	1.0	dB	Any 5MHz
VSWR	2110.	to	2170.	MHz		1.7	2.3		
Absolute Attenuation	10.	to	1920.	MHz	24	33		dB	
			190.	MHz	50	89		dB	Rx-Tx
			400.	MHz	50	71		dB	
	699.	to	716.	MHz	50	57		dB	B12Tx
	777.	to	787.	MHz	40	56		dB	B13Tx
	810.	to	830.	MHz	48	54		dB	
	814.	to	849.	MHz	40	54		dB	B26Tx
	824.	to	849.	MHz	46	54		dB	B5Tx
	880.	to	915.	MHz	40	53		dB	B8Tx
	898.	to	925.	MHz	46	53		dB	
	1710.	to	1785.	MHz	42	47		dB	B3Tx
	1730.	to	1920.	MHz	34	39		dB	2Tx-Rx
	1920.	to	1980.	MHz	42	46		dB	B1Tx
	2015.	to	2075.	MHz	10	16		dB	(Rx+Tx)/2
	2185.	to	6130.	MHz	1.0	5.0		dB	
	2400.	to	2500.	MHz	33	39		dB	2.4GHz ISM
	4030.	to	4150.	MHz	37	43		dB	Rx+Tx
	4220.	to	4340.	MHz	36	42		dB	2f
	4340.	to	13025.	MHz	15	26		dB	
	4900.	to	5950.	MHz	30	35		dB	5GHz ISM
	5950.	to	6130.	MHz	29	35		dB	Rx+2Tx
	6330.	to	6510.	MHz	28	34		dB	3f
	8440.	to	8680.	MHz	20	31		dB	4f
	10550.	to	10850.	MHz	20	27		dB	5f
	12660.	to	13020.	MHz	15	27		dB	6f

* Typical value at 25±2deg.C

Electrical Characteristic

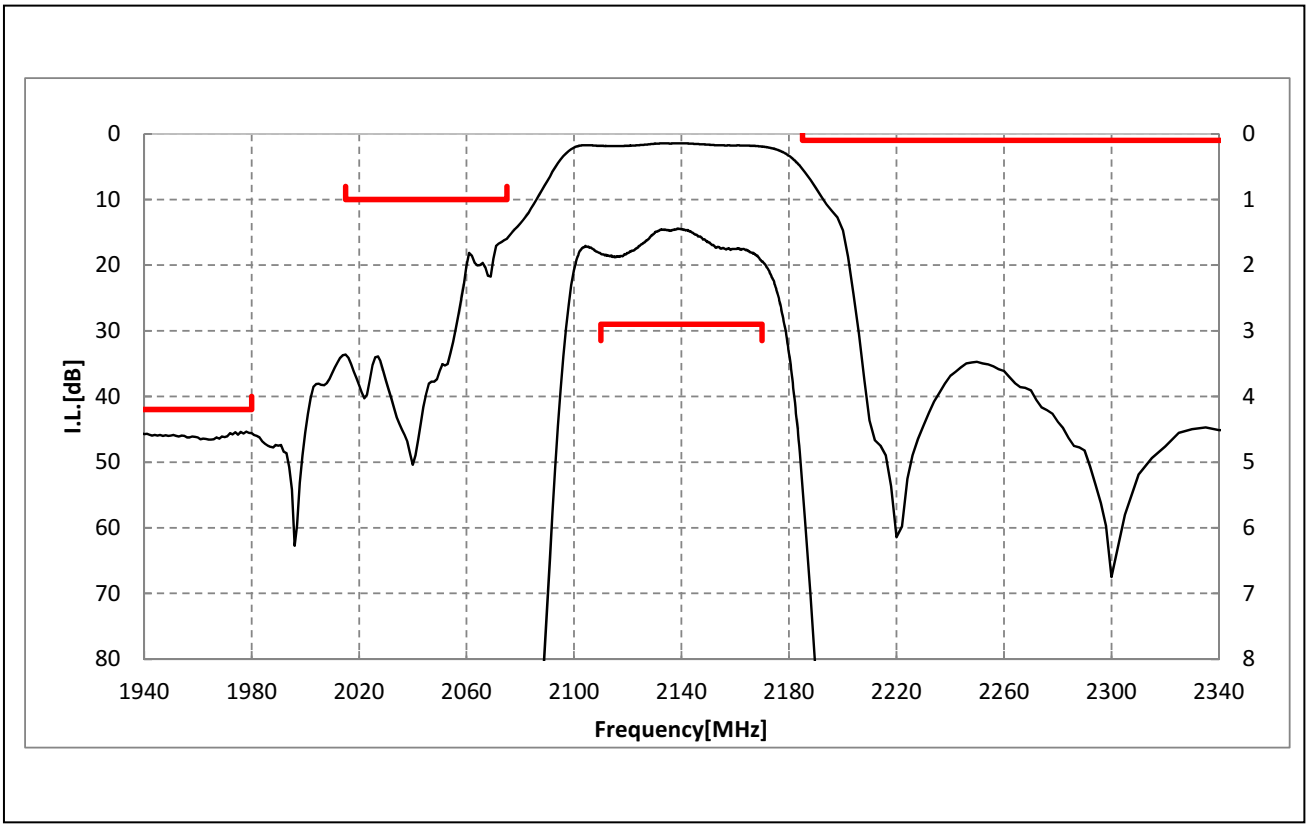
< Low Freq. Filter >

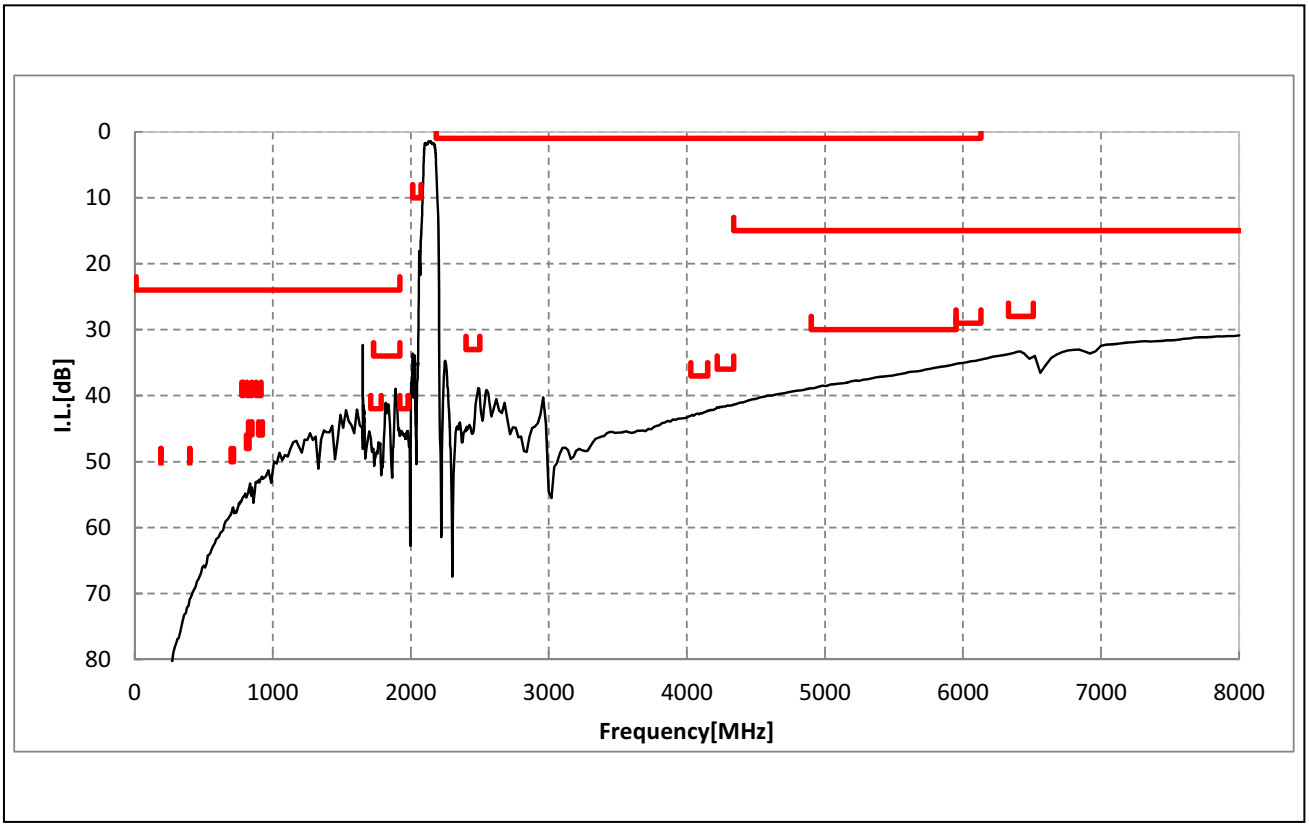




Electrical Characteristic

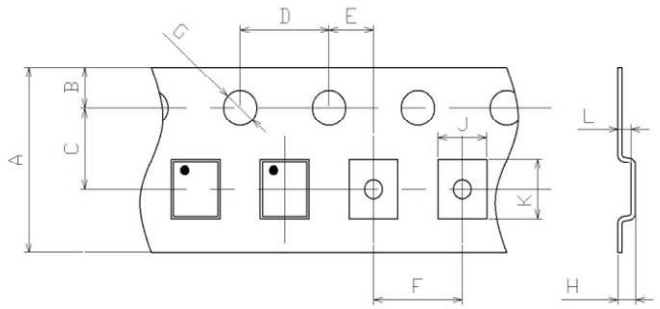
< High Freq. Filter >





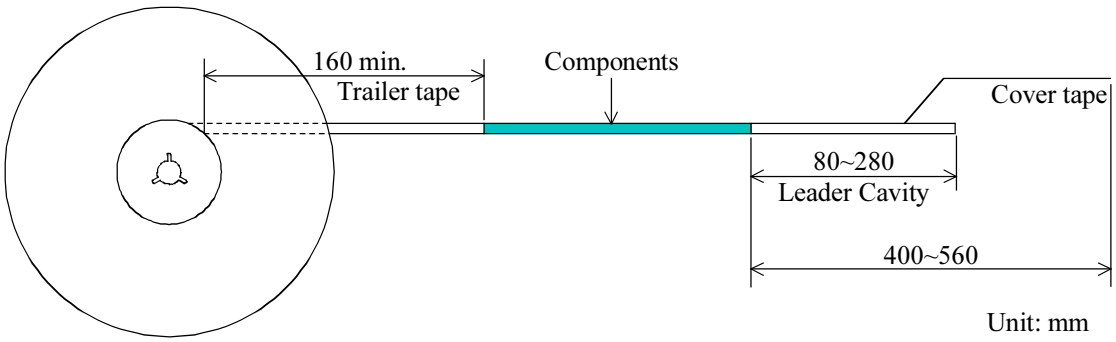
Dimensions of Tape & Reel unit: mm

Carrier Tape

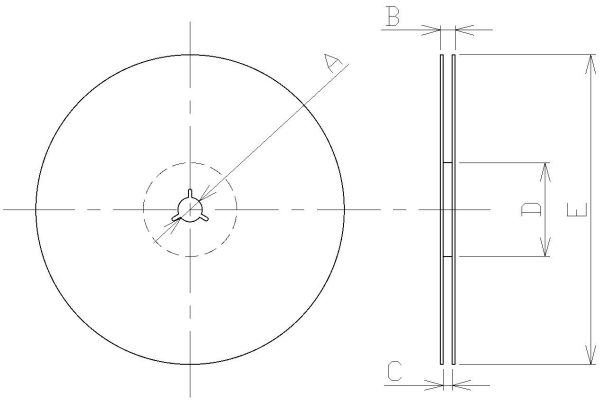


A:	8.0	J:	1.3
B:	1.75	K:	1.7
C:	3.50	L:	0.60
D:	4.0		
E:	2.00		
F:	4.0		
G:	φ1.5		
H:	0.90		

Tape



Reel



φ178Reel		φ330Reel	
A:	φ13.0	A:	φ13.0
B:	13.5max	B:	15.5max
C:	9.0	C:	9.5
D:	φ60	D:	φ100
E:	φ178	E:	φ330

SAWFD1G84AA0F0AR00… 10000pcs (φ330)
SAWFD1G84AA0F0AR1S… Sample Order (φ178/330)

Important Notice (1/2)

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All the items and parameters in this product specification/datasheet/catalog have been prescribed on the premise that our Product is used for the purpose, under the condition and in the environment specified in this specification. You are requested not to use our Product deviating from the condition and the environment specified in this specification.

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Furthermore, YOU AGREE TO INDEMNIFY AND DEFEND US AND OUR AFFILIATES AGAINST ALL CLAIMS, DAMAGES, COSTS, AND EXPENSES THAT MAY BE INCURRED, INCLUDING WITHOUT LIMITATION, ATTORNEY FEES AND COSTS, DUE TO THE USE OF OUR PRODUCTS IN THE PROHIBITED APPLICATIONS.

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(b) Aerospace equipment
(c) Undersea equipment.
(d) Power plant control equipment
(e) Medical equipment.
(f) Transportation equipment (vehicles, automotive, trains, ships, etc.).
(g)Traffic signal equipment.
(h)Disaster prevention / crime prevention equipment.
(i) Burning / explosion control equipment
(j) Application of similar complexity and/ or reliability requirements to the applications listed in the above.

For the avoidance of doubt, the Product is not automotive grade, and will not support such requests for automotive as below, also not support other specific requests for automotive.

- AEC-Q200
- PPAP
- IATF16949,VDA6.3
- Zero Defect program
- Long product life cycle
- Automotive 8D failure analysis and report

Important Notice (2/2)

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Please do not use the Product in molding condition.

This product is ESD (ElectroStatic Discharge) sensitive device.
When you install or measure this, you should be careful not to add antistatic electricity or high voltage.
Please be advised that you had better check anti serge voltage.

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Please do not use our Products, our technical information and other data provided by us for the purpose of developing of mass-destruction weapons and the purpose of military use.
Moreover, you must comply with "foreign exchange and foreign trade law", the "U.S. export administration regulations", etc.

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The Product shall not be used in any other application/model than that of claimed to Murata.

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・deviation or lapse in function of engineering sample,

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