

Datasheet of SAW Device

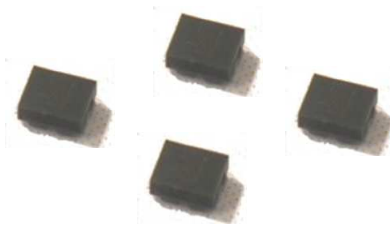
SAW Duplexer

for Band05 / Unbalanced / LR /1612

Murata PN: SAYRV836MBA0F0A

■ Feature

- High Power Durability
- Low Insertion Loss
- High Isolation



Note : Murata SAW Component is applicable for Cellular /Cordless phone (Terminal) relevant market only.
Please also read caution at the end of this document.

SAYRV836MBA0F0A (Band05 / Unbalanced / LR / 1612)

General Information

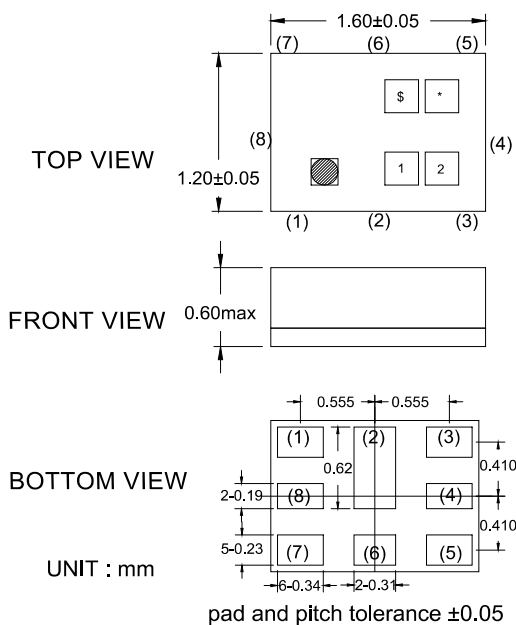
- | | |
|--|----------------------------|
| - Operating temperature | : -20 to +85 deg.C |
| - Storage temperature | : -40 to +85 deg.C |
| - Maximum Input Power Level for short term | : +31 dBm |
| - Input Power | : +30 dBm 5000 h +50 deg.C |
| - D.C. Volatage between the terminals | : 3V (25+/-2 deg.C) |
| - Minimum Resistance between the terminals | : 1M ohm |
| - RoHS compliance | : Yes |
| - ESD (ElectroStatic Discharge) sensitive device | |

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Package Dimensions & Recommended Land Pattern

unit: mm

Dimensions



Marking : Laser Printing

* : Month code(Refer to the table A)

\$: Date code(Refer to the table B)

1 : 2

2 : 5

Terminal Number

(6) : Ant

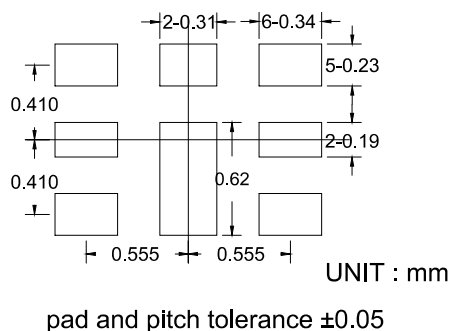
(3) : TX

(1) : RX

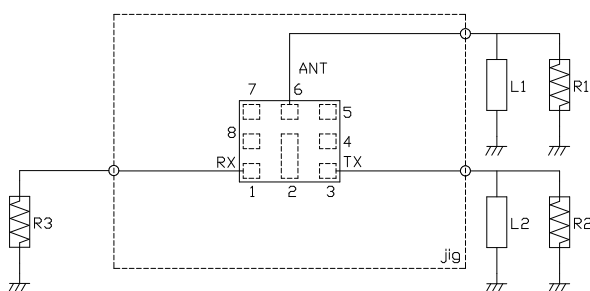
Others : GND

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

Land Pattern



Measurement Circuit (Top Thru View)



R1 : 50 ohm	L1 :6.9nH(Ideal inductor)
	:7.5nH(LQP03TN7N5)
	<Reference>
R2 : 50 ohm	L2 :11nH(Ideal inductor)
R3 : 50 ohm	

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Electrical Characteristic < TX→ANT. >

TX → ANT.		Characteristics (-20 to +85 deg.C)			Unit	Note
		min.	typ.*	max.		
Center Frequency			836.5		MHz	
Insertion Loss	824. to 849. MHz		1.5	1.8	dB	
	826.5 to 846.5 MHz		1.3	1.7	dB _{INT}	Any 4.5MHz
Ripple Deviation	824. to 849. MHz		0.5	1.4	dB	
	824. to 849. MHz		0.3	1.2	dB	Any 3.84MHz
VSWR	824. to 849. MHz		1.3	2.0		TX
	824. to 849. MHz		1.3	2.0		ANT.
Absolute Attenuation	10. to 420. MHz	35	42		dB	
	420. to 494. MHz	35	39		dB	450MHz Rejection
	494. to 701. MHz	27	31		dB	
	699. to 716. MHz	27	31		dB	B12 TX
	701. to 728. MHz	27	31		dB	
	704. to 716. MHz	27	31		dB	B17 TX
	728. to 764. MHz	27	31		dB	700MHz Rejection
	764. to 804. MHz	28	31		dB	
	860. to 869. MHz	3.0	8.0		dB	
	869. to 894. MHz	45	57		dB	RX
	1559. to 1563. MHz	30	38		dB	COMPASS
	1565.42 to 1573.37 MHz	30	38		dB	Lower GPS
	1573.37 to 1577.47 MHz	30	38		dB	Regular GPS
	1577.47 to 1585.42 MHz	30	38		dB	Upper GPS
	1597.55 to 1605.89 MHz	30	37		dB	GLONASS
	1638. to 1708. MHz	28	34		dB	2f
	1710. to 1785. MHz	28	34		dB	B4 TX
	1844.9 to 1879.9 MHz	25	33		dB	B3 TX
	1884.5 to 1919.6 MHz	25	33		dB	
	1920. to 1980. MHz	25	32		dB	B1 TX
	2110. to 2170. MHz	25	30		dB	B1 RX
	2400. to 2494. MHz	22	28		dB	ISM2.4
	2472. to 2547. MHz	22	28		dB	3f
	3286. to 3406. MHz	15	24		dB	4f
	4110. to 4255. MHz	15	21		dB	5f
4900. to 5950. MHz	10	18		dB	ISM 5G, 6f, 7f	
6582. to 6802. MHz	10	27		dB	8f	
7406. to 7651. MHz	12	21		dB	9f	
8230. to 8500. MHz	5.0	12.0		dB	10f	
9054. to 9349. MHz	5.0	10.0		dB	11f	
9878. to 10198. MHz	5.0	12.0		dB	12f	
10702. to 11047. MHz	5.0	18.0		dB	13f	
11526. to 11896. MHz	5.0	12.0		dB	14f	
12350. to 12745. MHz	5.0	9.9		dB	15f	

* Typical value at 25±2deg.C

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Electrical Characteristic < ANT. → RX >

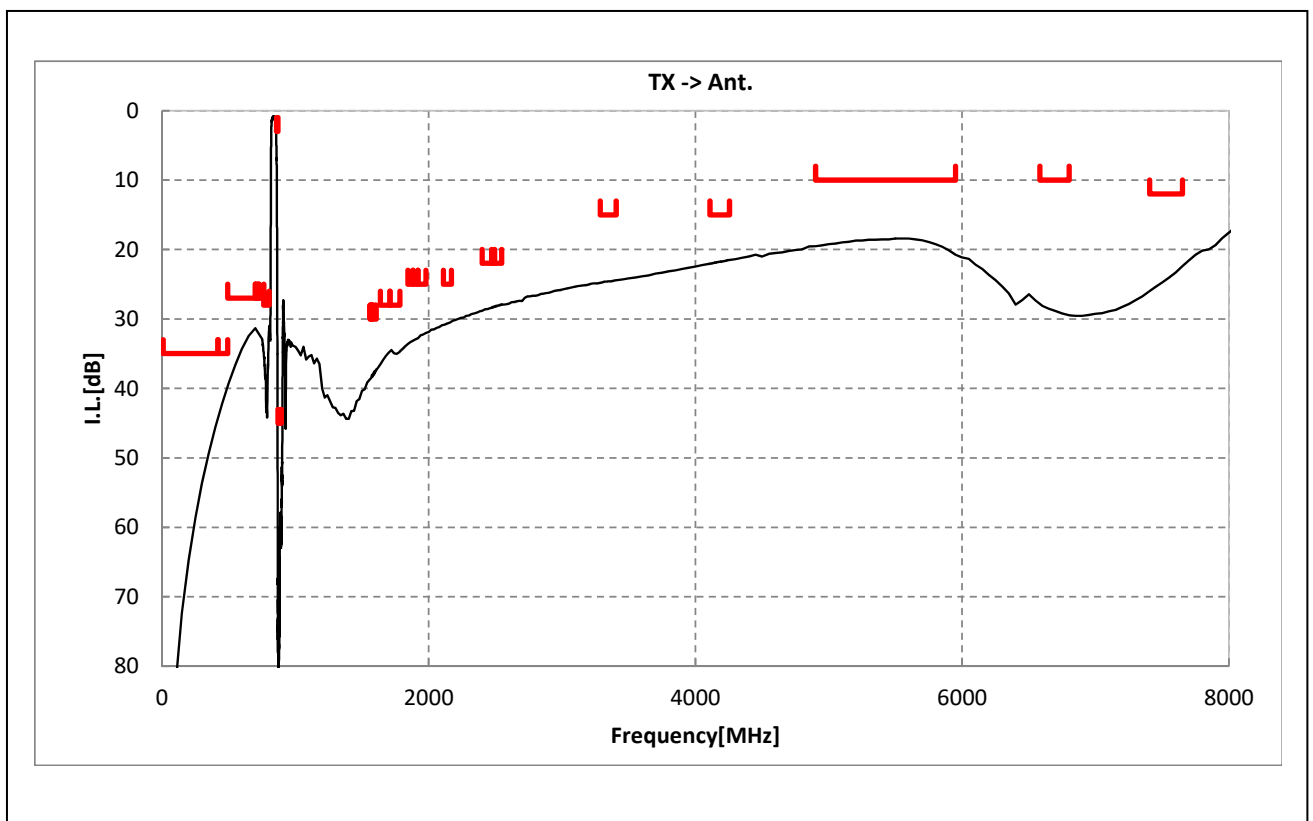
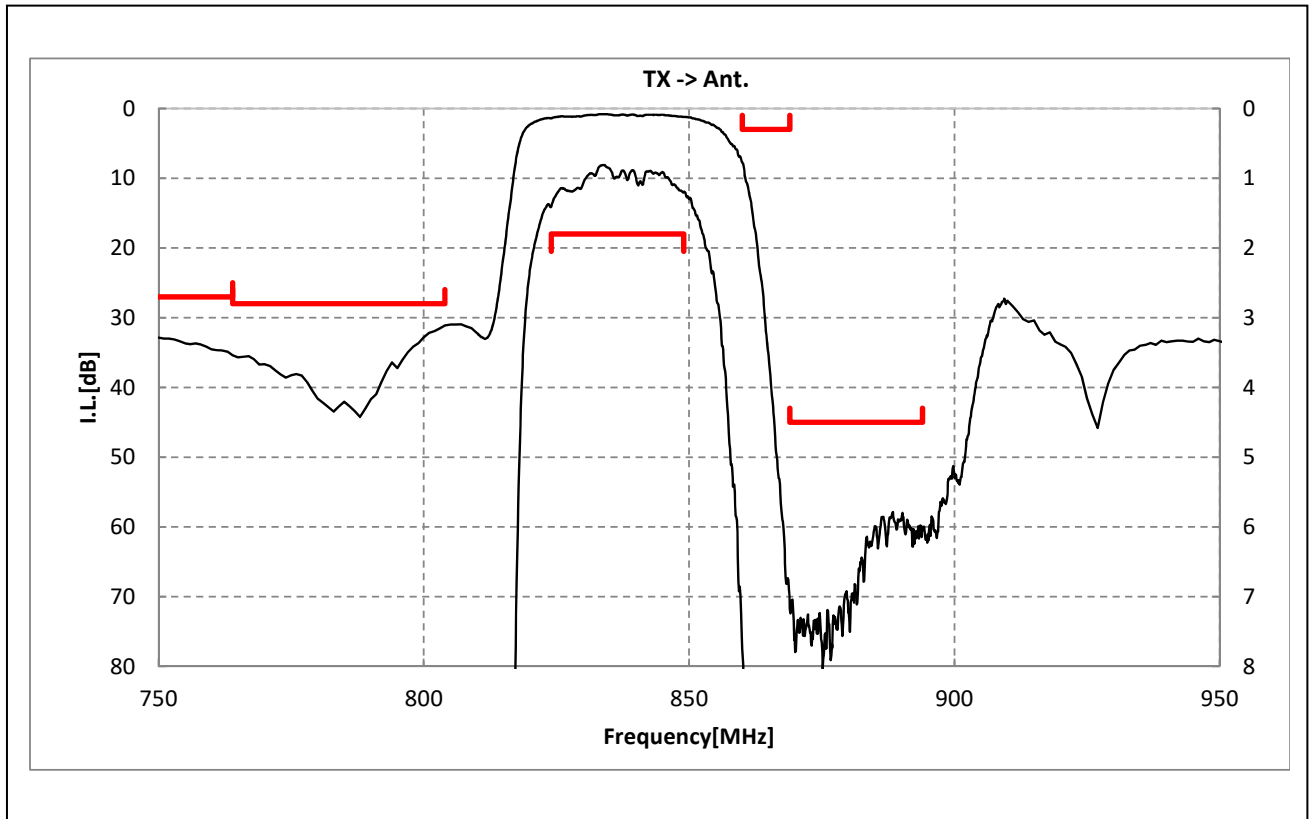
ANT. → RX				Characteristics (-20 to +85 deg.C)			Unit	Note		
				min.	typ.*	max.				
				Center Frequency						
Insertion Loss	869.	to	894.	MHz		1.8	2.2	dB		
	871.5	to	891.5	MHz		1.6	1.9	dB _{INT}	Any 4.5MHz	
Ripple Deviation	869.	to	894.	MHz		0.5	1.2	dB		
	869.	to	894.	MHz		0.3	0.8	dB	Any 3.84MHz	
VSWR	869.	to	894.	MHz		1.6	2.0		RX	
	869.	to	894.	MHz		1.6	2.0		ANT.	
Absolute Attenuation	10.	to	447.	MHz	50	58		dB		
			45.	MHz	50	96		dB	RX - TX	
	447.	to	824.	MHz	43	49		dB		
	779.	to	804.	MHz	44	50		dB	2TX - RX	
	824.	to	849.	MHz	45	58		dB	TX	
	849.	to	854.	MHz	33	58		dB	(RX + TX) / 2	
	909.	to	979.	MHz	12	21		dB		
	1693.	to	1743.	MHz	45	53		dB	RX + TX	
	1710.	to	1785.	MHz	45	54		dB	B3 TX	
	1788.	to	1788.	MHz	45	54		dB	2f	
	1850.	to	1920.	MHz	40	54		dB	B2 TX	
	1920.	to	1980.	MHz	40	55		dB	B1 TX	
	1980.	to	2400.	MHz	40	55		dB		
	2305.	to	2315.	MHz	33	57		dB	B30 TX	
	2400.	to	2500.	MHz	30	57		dB	ISM2.4	
	2467.	to	2494.	MHz	30	57		dB	WLAN Co-ex	
	2517.	to	2592.	MHz	30	57		dB	RX + 2TX	
	2607.	to	2682.	MHz	30	57		dB	3f	
	3476.	to	3576.	MHz	32	52		dB	4f	
	4345.	to	4470.	MHz	35	44		dB	5f	
	4900.	to	5950.	MHz	25	32		dB	ISM 5G	
	5214.	to	5364.	MHz	25	35		dB	6f	
	6083.	to	6258.	MHz	25	32		dB	7f	
	6952.	to	7152.	MHz	25	36		dB	8f	
	7821.	to	8046.	MHz	20	37		dB	9f	
	8690.	to	8940.	MHz	20	35		dB	10f	
	9559.	to	9834.	MHz	20	35		dB	11f	
	10428.	to	10728.	MHz	20	36		dB	12f	
	11297.	to	11622.	MHz	15	32		dB	13f	
	12166.	to	12516.	MHz	15	27		dB	14f	

* Typical value at 25±2deg.C

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Electrical Characteristic

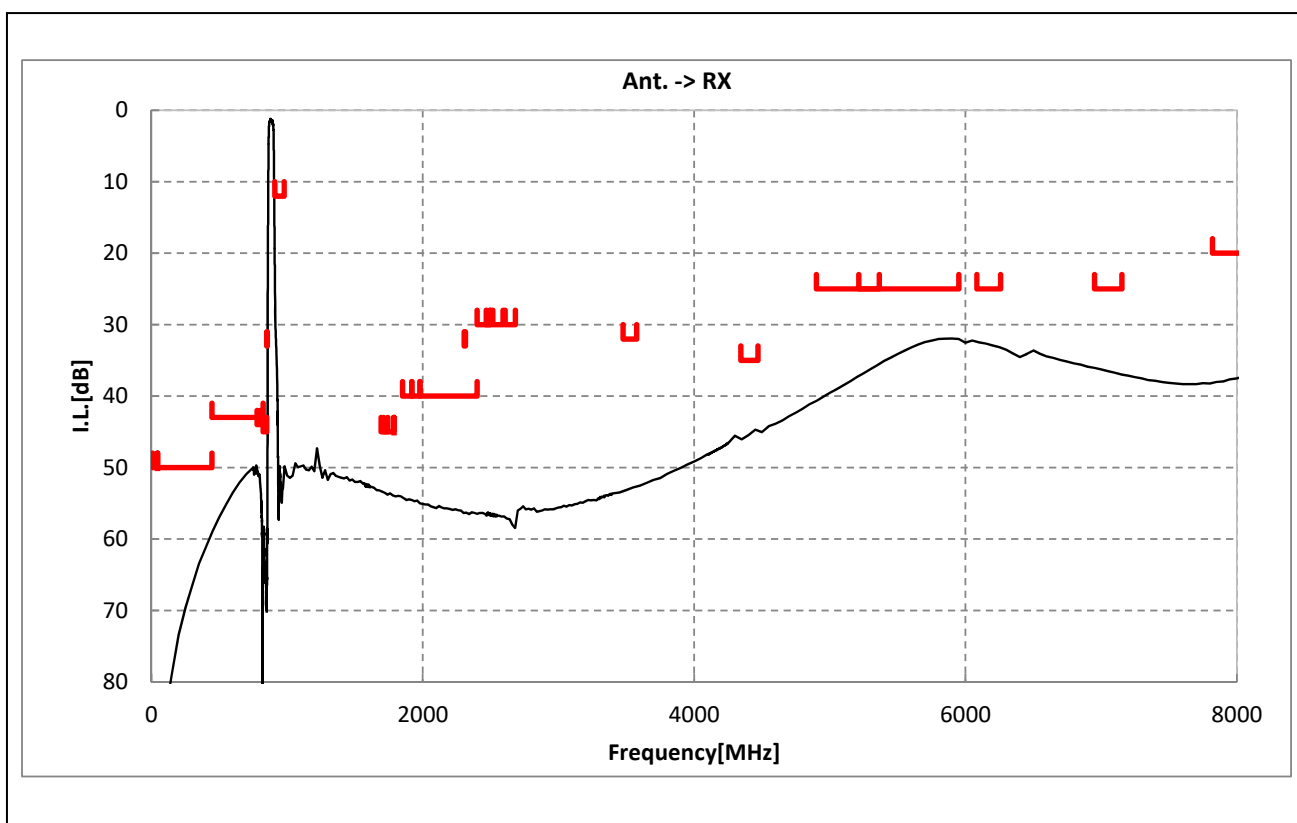
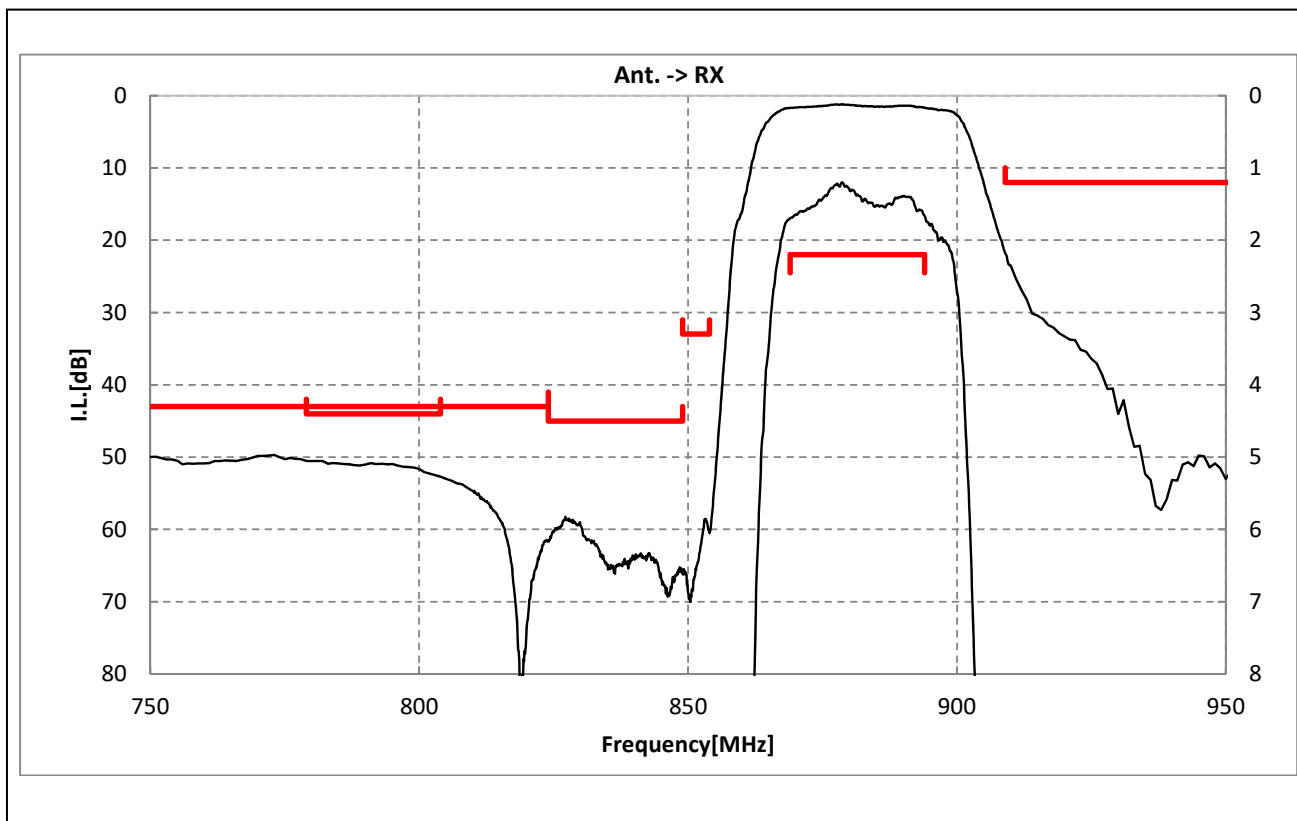
< TX→ANT. >



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Electrical Characteristic

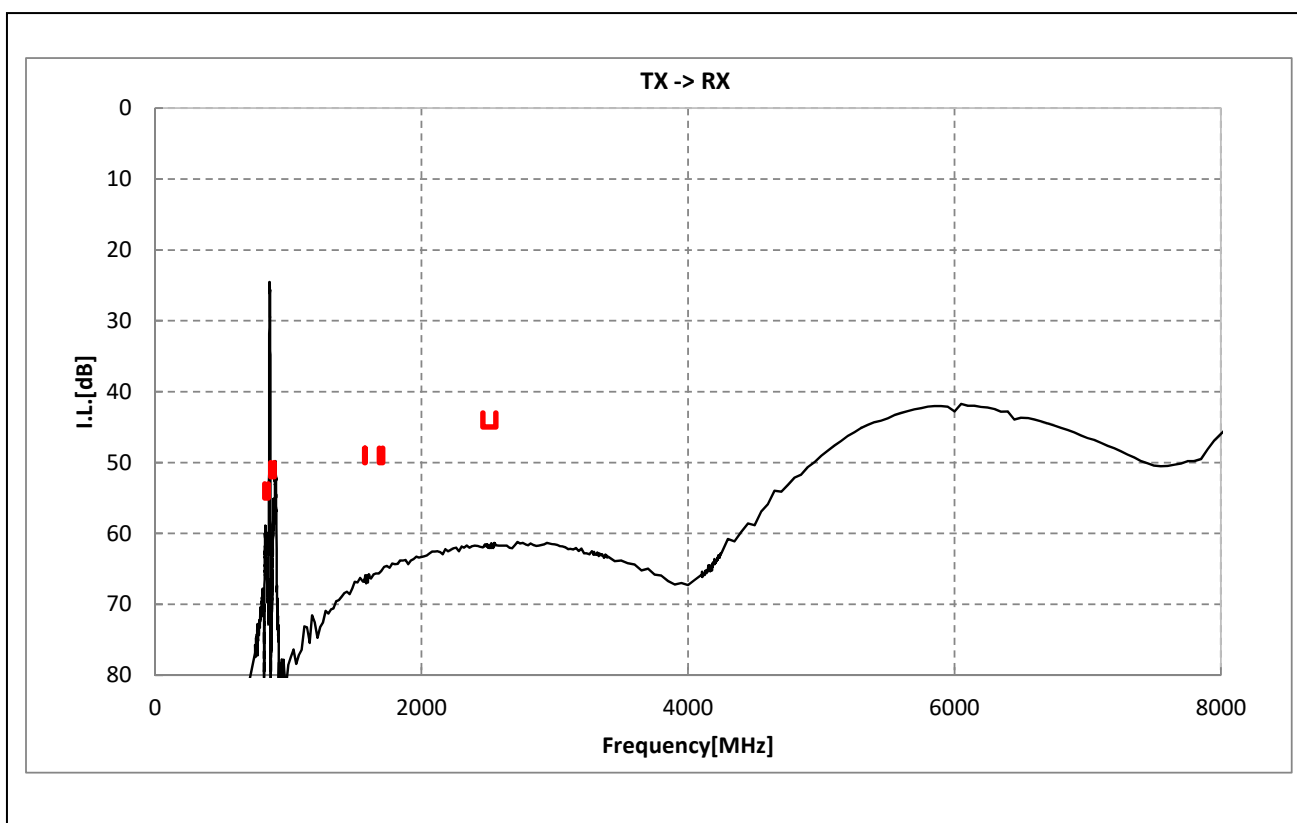
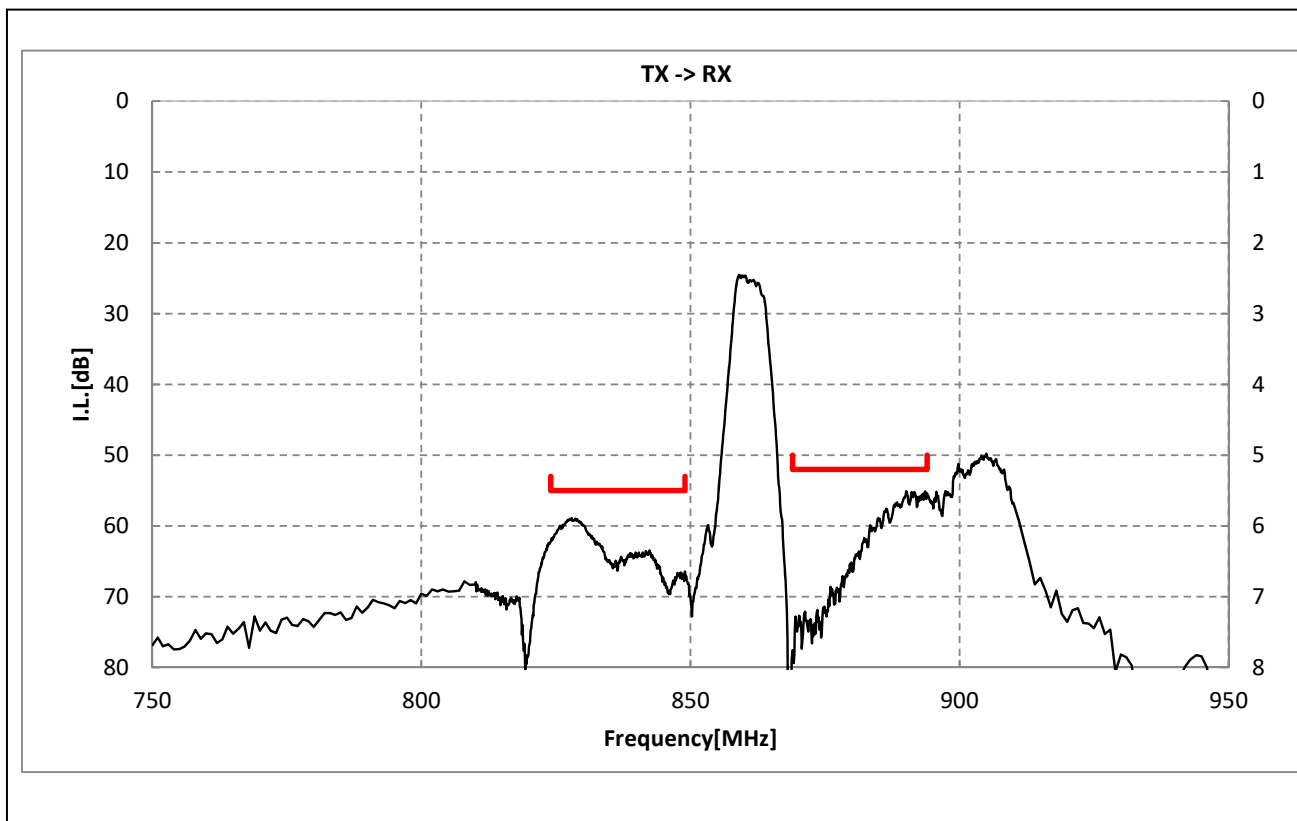
< ANT. → RX >



SAYRV836MBA0F0A (Band05 / Unbalanced / LR / 1612)

Electrical Characteristic

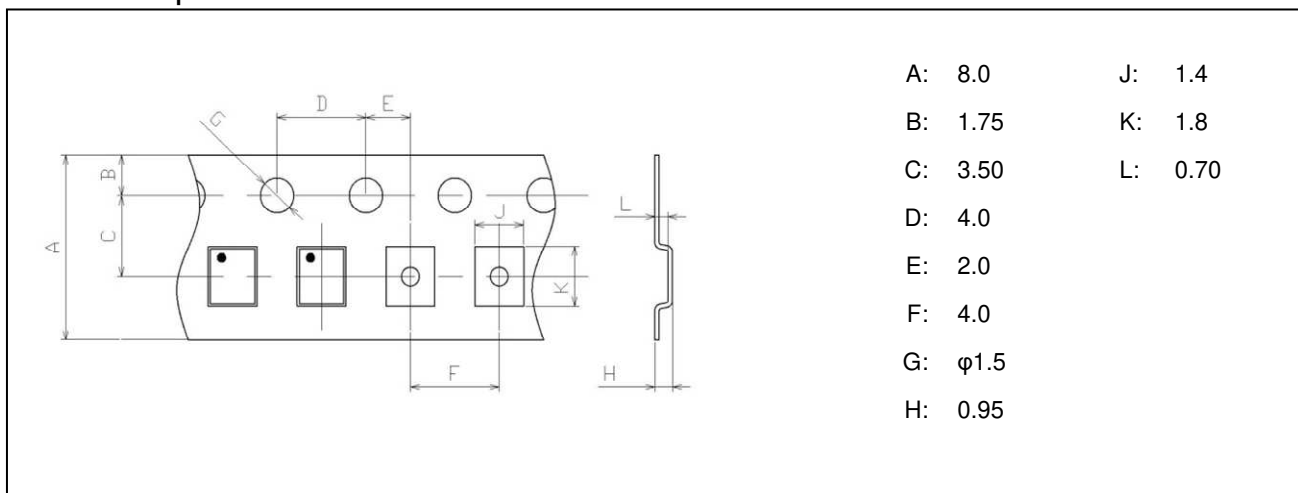
< TX→RX. >



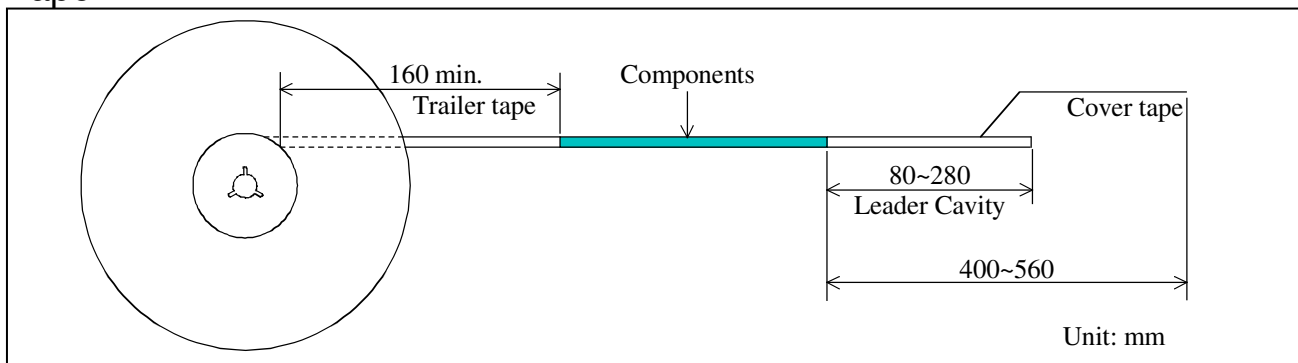
SAYRV836MBA0F0A (Band05 / Unbalanced / LR / 1612)

Dimensions of Tape & Reel unit: mm

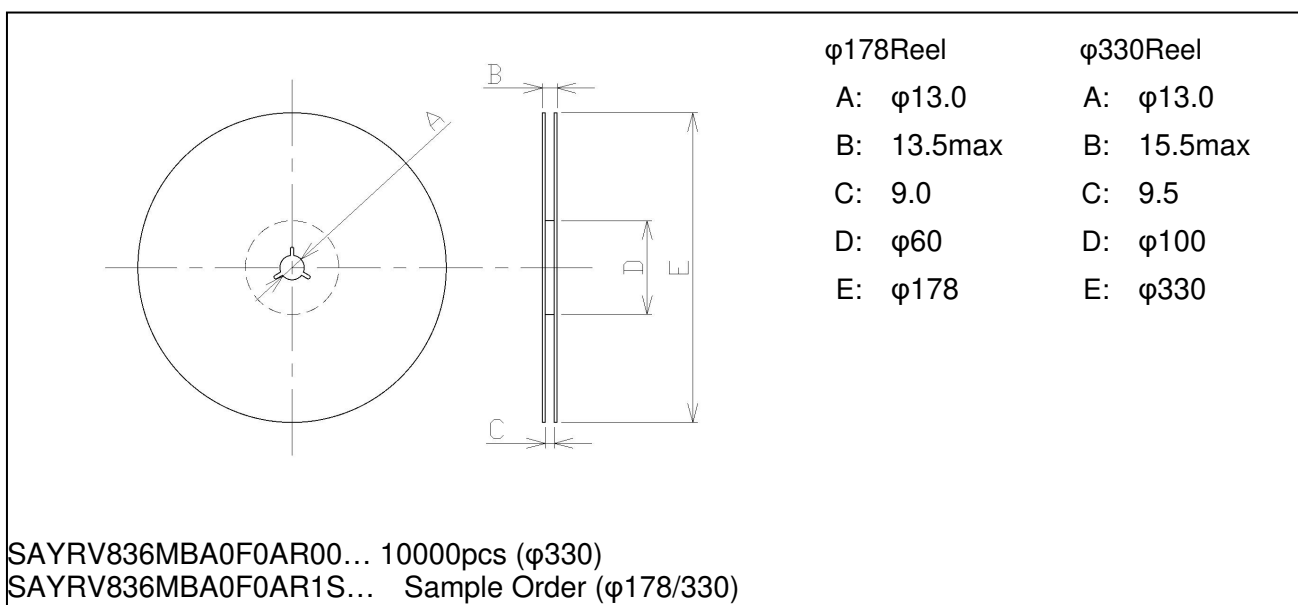
Carrier Tape



Tape



Reel



SAYRV836MBA0F0A (Band05 / Unbalanced / LR / 1612)

Marking Code

Table A: Month Code

2013 2017 2021	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	A	B	C	D	E	F	G	H	J	K	L	M
2014 2018 2022	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	N	P	Q	R	S	T	U	V	W	X	Y	Z
2015 2019 2023	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	a	b	c̄	d	e	f	g	h	j	k	l	m
2016 2020 2024	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	n	p	q	r	s	t	u	v	w	x	y	z

Table B: Date Code

date	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
code	A	B	C	D	E	F	G	H	J	K	
date	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	
code	L	M	N	P	Q	R	S	T	U	V	
date	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
code	W	X	Y	Z	a	b	c̄	d	e	f	g

Important Notice (1/2)

PLEASE READ THIS NOTICE BEFORE USING OUR PRODUCTS.

Please make sure that your product has been evaluated and confirmed from the aspect of the fitness for the specifications of our product when our product is mounted to your product. 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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The product shall not be used in any application listed below which requires especially high reliability for the prevention of such defect as may directly cause damage to the third party's life, body or property. You acknowledge and agree that, if you use our products in such applications, we will not be responsible for any failure to meet such requirements.

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 SUCH APPLICATIONS.

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- Aircraft equipment.
- Aerospace equipment
- Undersea equipment.
- Power plant control equipment - Medical equipment.
- Transportation equipment (vehicles, trains, ships, elevator, etc.).
- Traffic signal equipment.
- Disaster prevention / crime prevention equipment.
- Burning / explosion control equipment
- Application of similar complexity and/ or reliability requirements to the applications listed in the above.

We expressly prohibit you from analyzing, breaking, Reverse-Engineering, remodeling altering, and reproducing our product. Our product cannot be used for the product which is prohibited from being manufactured, used, and sold by the regulations and laws in the world.

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 surge 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.

Please note that we may discontinue the manufacture of our products, due to reasons such as end of supply of materials and/or components from our suppliers.

Customer acknowledges that Murata will, if requested by you, conduct a failure analysis for defect or alleged defect of Products only at the level required for consumer grade Products, and thus such analysis may not always be available or be in accordance with your request (for example, in cases where the defect was caused by components in Products supplied to Murata from a third party).

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

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We reject any liability or product warranty for engineering samples.

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- deviation or lapse in function of engineering sample,
- improper use of engineering samples.

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[051157-0000](#) [PD0922J5050D2HF](#) [1E1305-3](#) [1F1304-3S](#) [1G1304-30](#) [B0922J7575AHF](#) [10017-3](#) [TP-103-PIN](#) [BD1222J50200AHF](#)

[BD1722J50100AHF](#) [2450DP39K5400E](#) [BD0810J50150AHF](#) [BD1722J50200AHF](#) [DSS-113-PIN](#) [DS-327-PIN](#) [MACP-008125-CK07F0](#) [DS-329-PIN](#)