

Datasheet of SAW Device

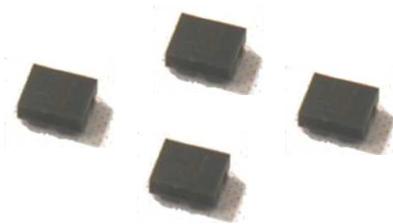
SAW Duplexer

for Band7 / Balanced / LR /1814

Murata PN: SAYEY2G53CA0F0A

■ Feature

- High WiFi Attenuation
- LTE-A



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

SAYEY2G53CA0F0A (Band7 / Balanced / LR / 1814)

| Revision Number | Date | Description |
|------------------------|-------------|-------------------------------|
| SAYEY2G53CA0F0A_rev. A | Apr-23-2014 | ■ Initial Release |
| SAYEY2G53CA0F0A_rev. B | Sep-10-2014 | ■ Updated for MP |
| SAYEY2G53CA0F0A_rev. C | Sep-03-2015 | ■ Updated Feature |
| SAYEY2G53CA0F0A_rev. D | Sep-06-2016 | ■ Updated General Information |
| SAYEY2G53CA0F0A_rev. E | Feb-15-2017 | ■ Updated General Information |
| | | |
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| | | |

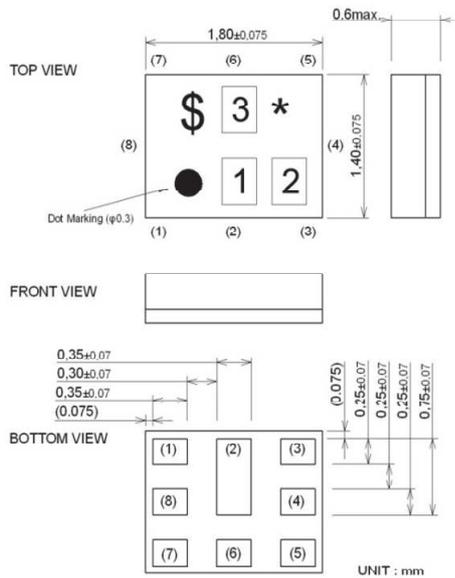
- Operating temperature : -20 to +85 deg.C
- Storage temperature : -40 to +85 deg.C
- Input Power : +29 dBm 5000 h +50 deg.C
- D.C. Volatage between the terminals : 3V (25+/-2 deg.C)
- Minimum Resistance between the terminals : 10M ohm
- RoHS compliance : Yes
- ESD (ElectroStatic Discharge) sensitive device

SAYEY2G53CA0F0A (Band7 / Balanced / LR / 1814)

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 : 5

2 : D

3 : A

Terminal Number

(6) : Ant

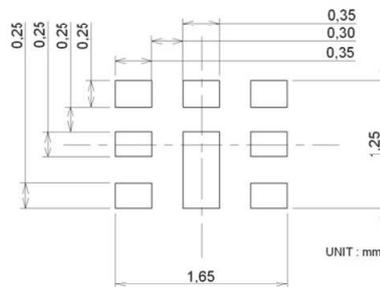
(3) : TX

(1)(8) : RX

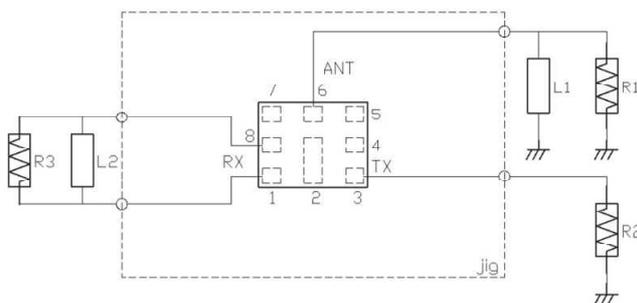
Others : GND

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

Land Pattern



Measurement Circuit (Top Thru View)



| | |
|--------------|---------------------------|
| R1 : 50 ohm | L1 :2.2nH(Ideal inductor) |
| | :2.5nH(LQP03TN2N5) |
| | <Reference> |
| R2 : 50 ohm | |
| R3 : 100 ohm | L2 :10nH(Ideal inductor) |
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| | |
| | |

SAYEY2G53CA0F0A (Band7 / Balanced / LR / 1814)

Electrical Characteristic < TX→RX. >

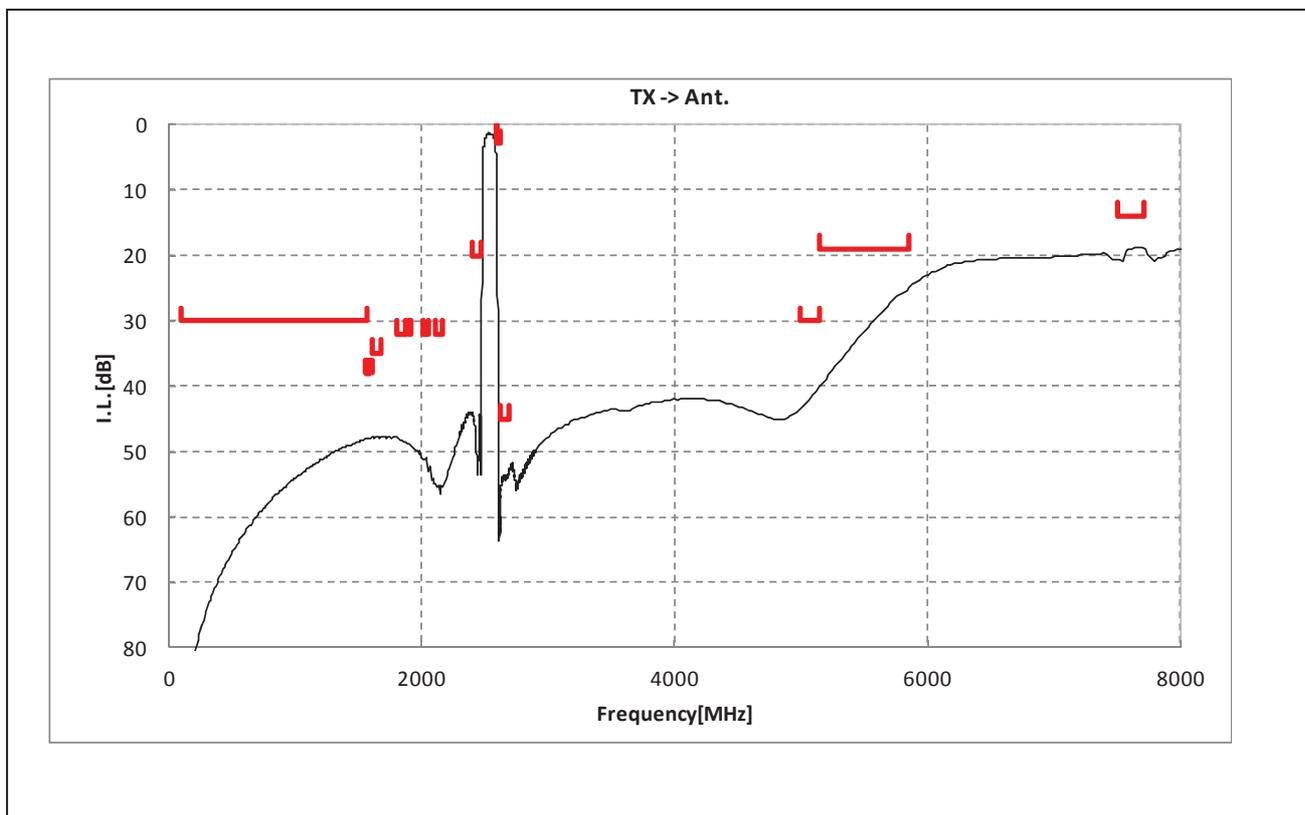
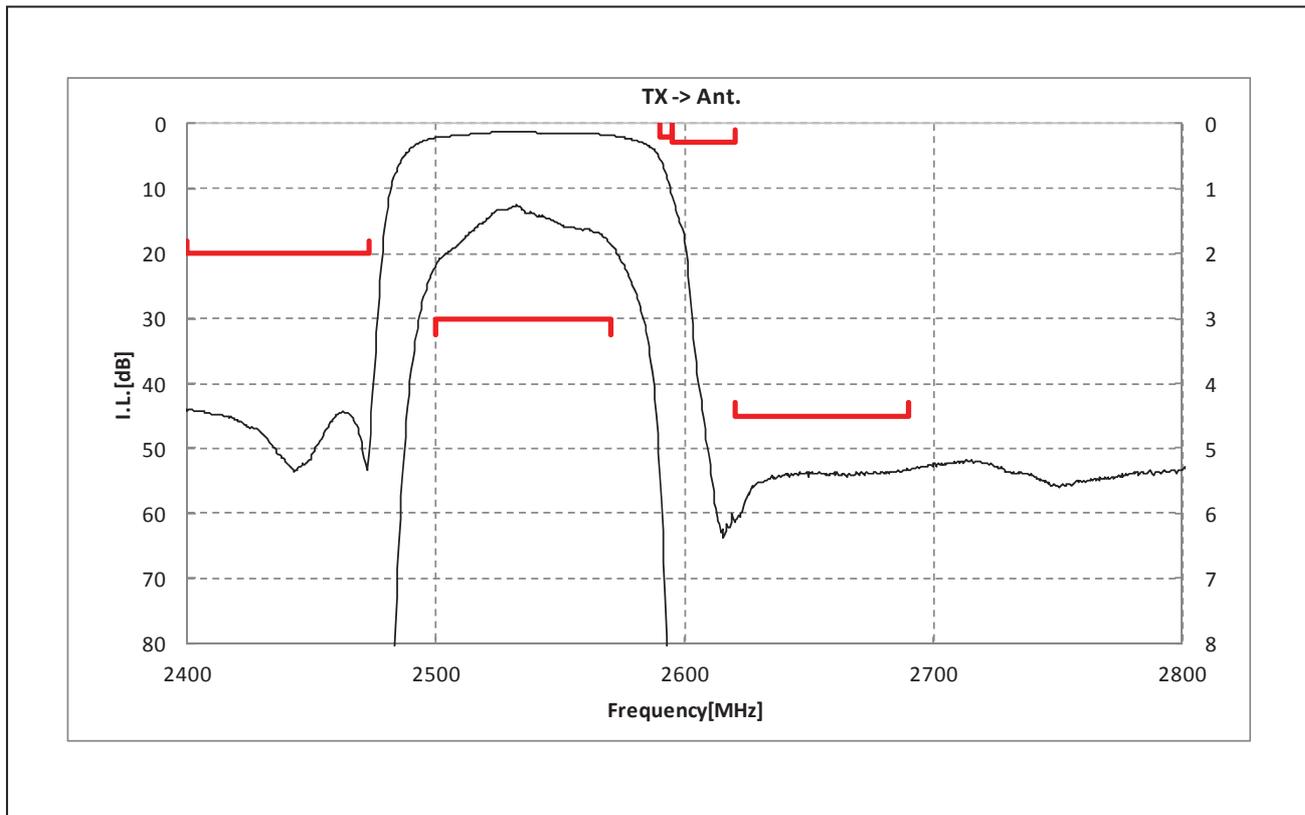
| TX → RX | | | | Characteristics (-20 to +85 deg.C) | | | Unit | Note |
|-------------------|-------|----|-------|---------------------------------------|-------|------|------|-----------------|
| | | | | min. | typ.* | max. | | |
| | | | | Isolation | | | | |
| Differential Mode | 2500. | to | 2570. | MHz | 53 | 56 | | |
| | 2620. | to | 2690. | MHz | 53 | 57 | | |
| | 2500. | to | 2570. | MHz | 53 | 56 | | +23 to +27deg.C |
| | 2620. | to | 2690. | MHz | 53 | 57 | | +23 to +27deg.C |
| Common Mode | 2500. | to | 2570. | MHz | 45 | 48 | | |
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* Typical value at 25±2deg.C

SAYEY2G53CA0F0A (Band7 / Balanced / LR / 1814)

Electrical Characteristic

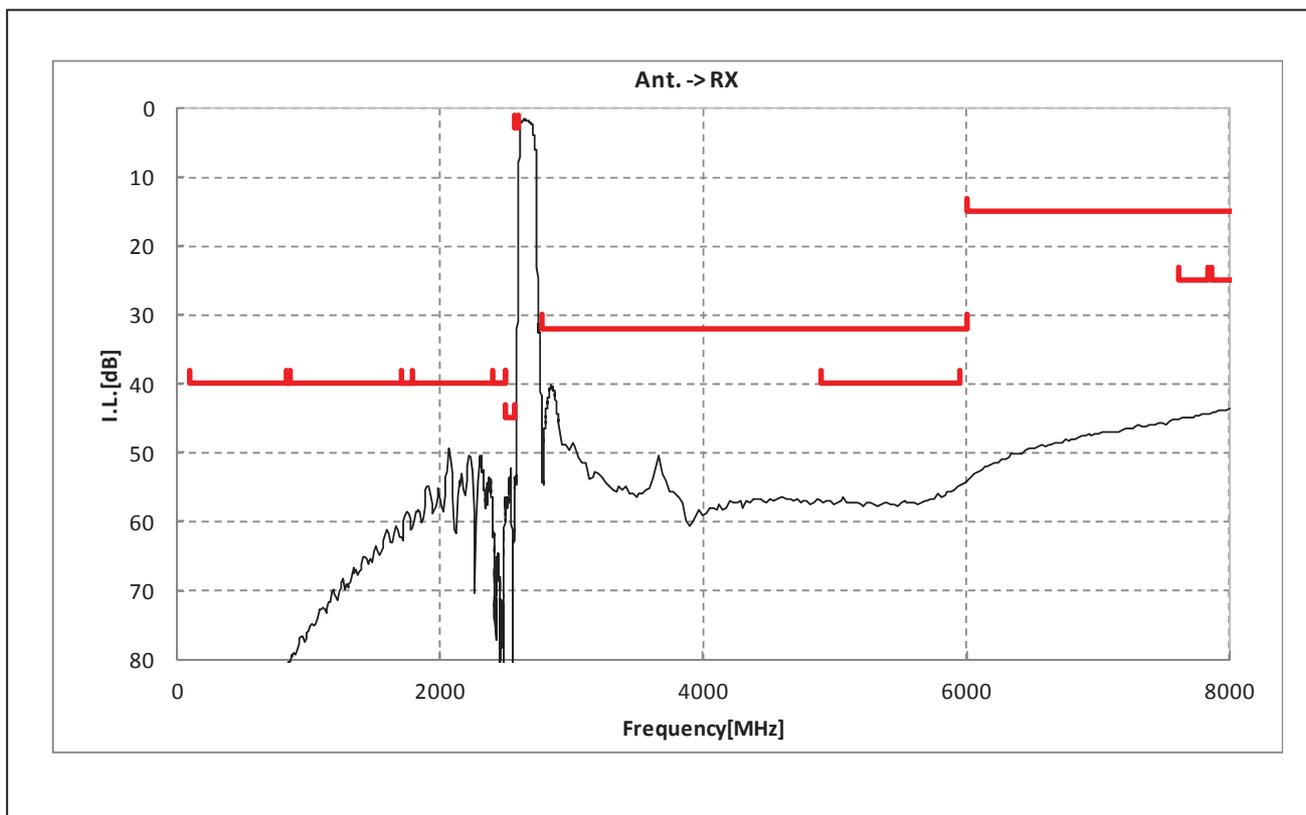
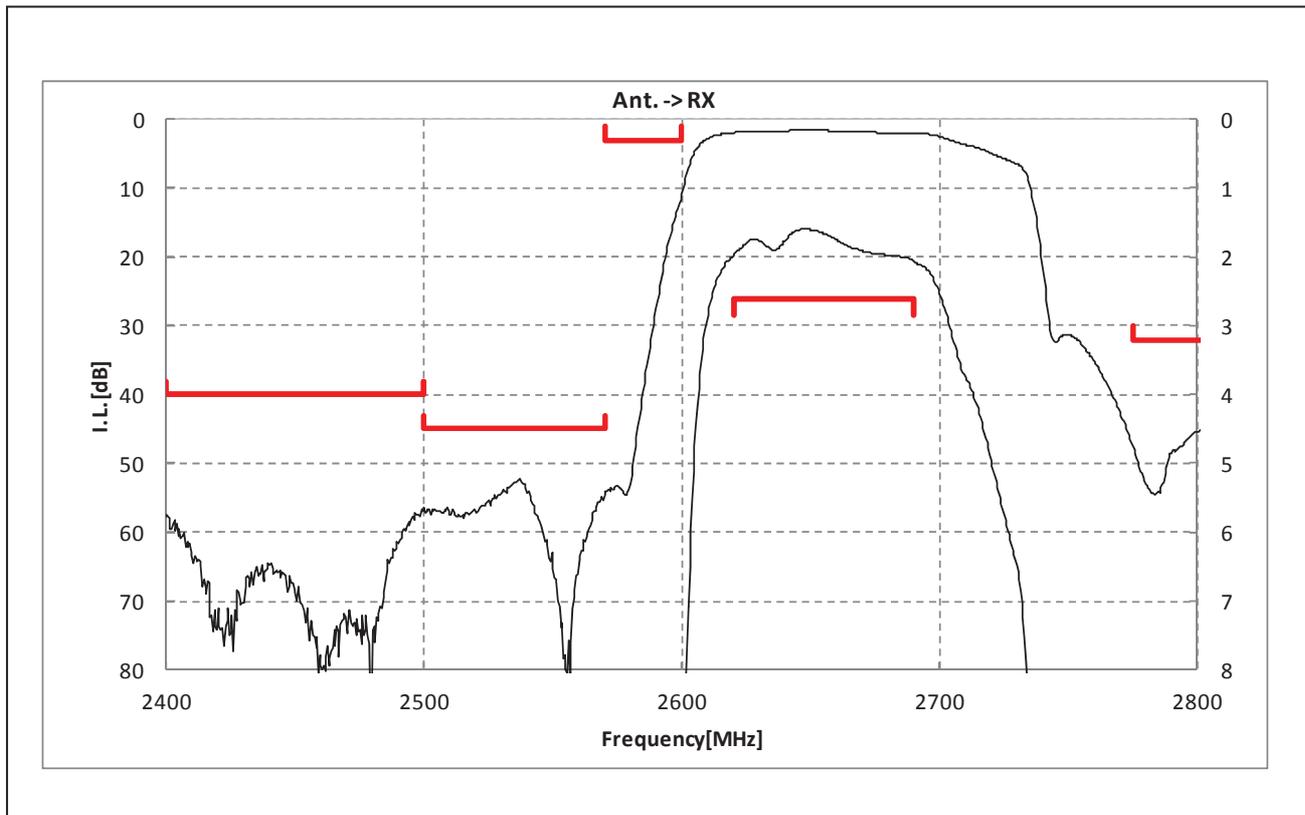
< TX→ANT. >



SAYEY2G53CA0F0A (Band7 / Balanced / LR / 1814)

Electrical Characteristic

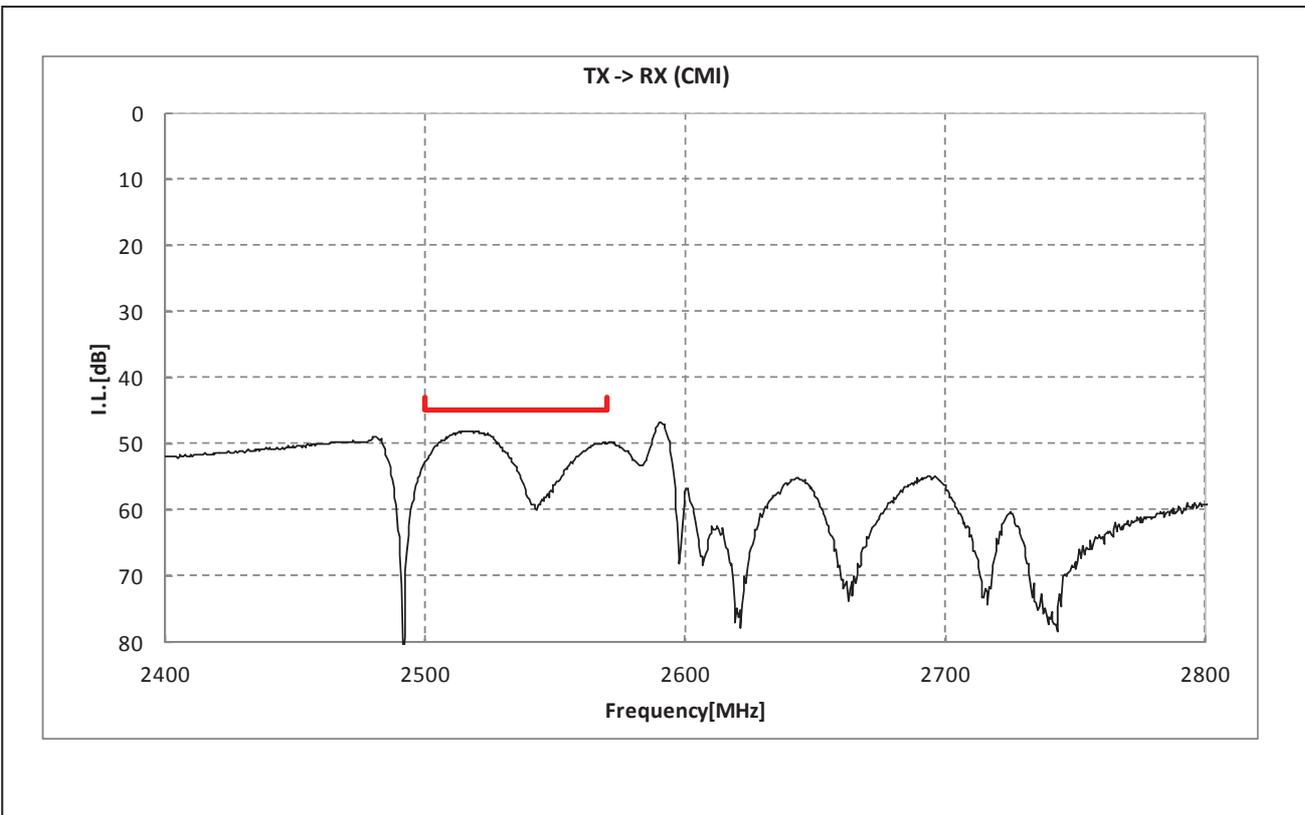
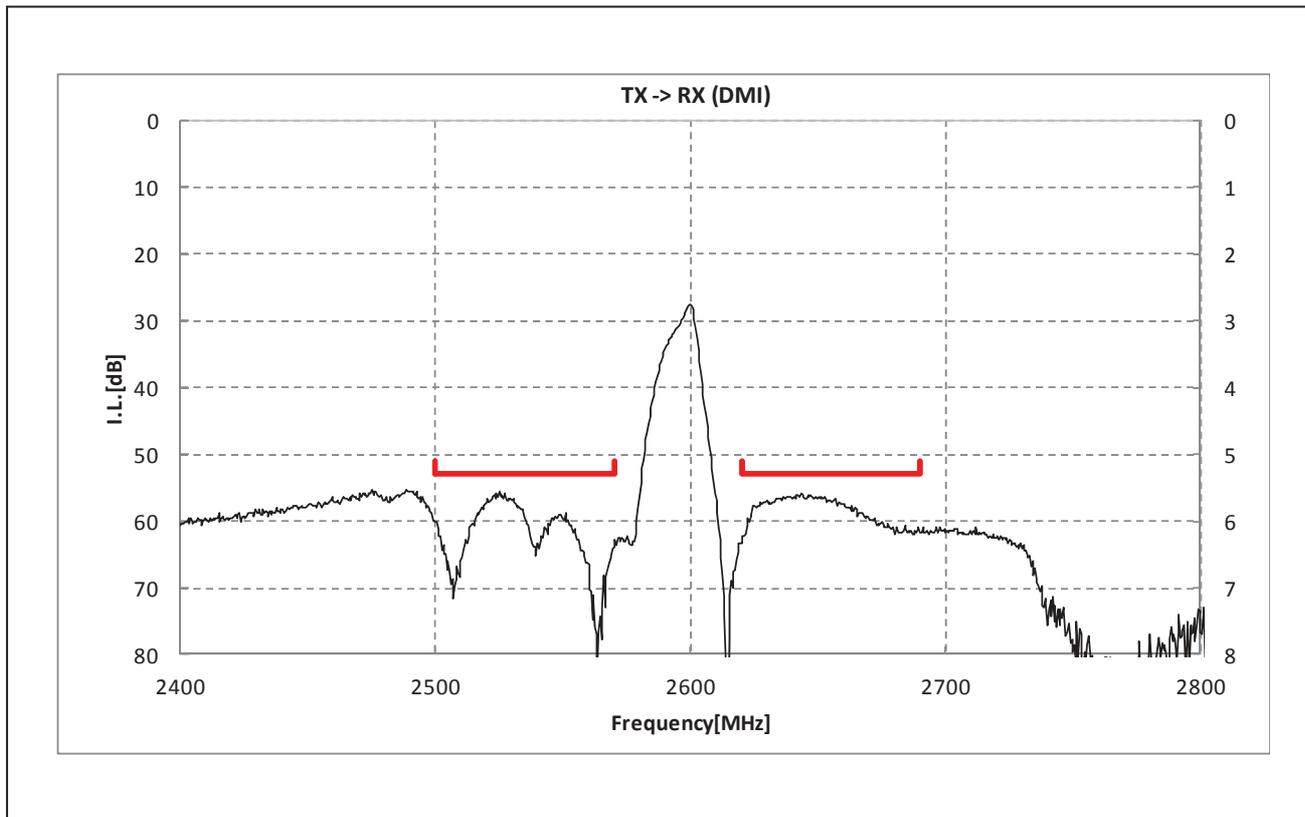
< ANT.→RX >



SAYEY2G53CA0F0A (Band7 / Balanced / LR / 1814)

Electrical Characteristic

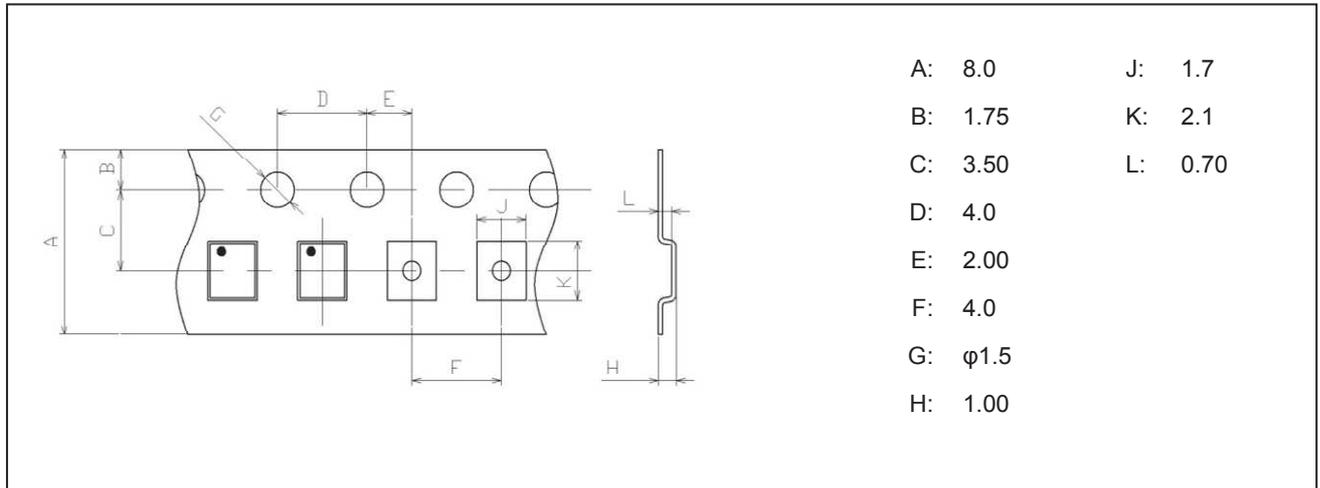
< TX→RX. >



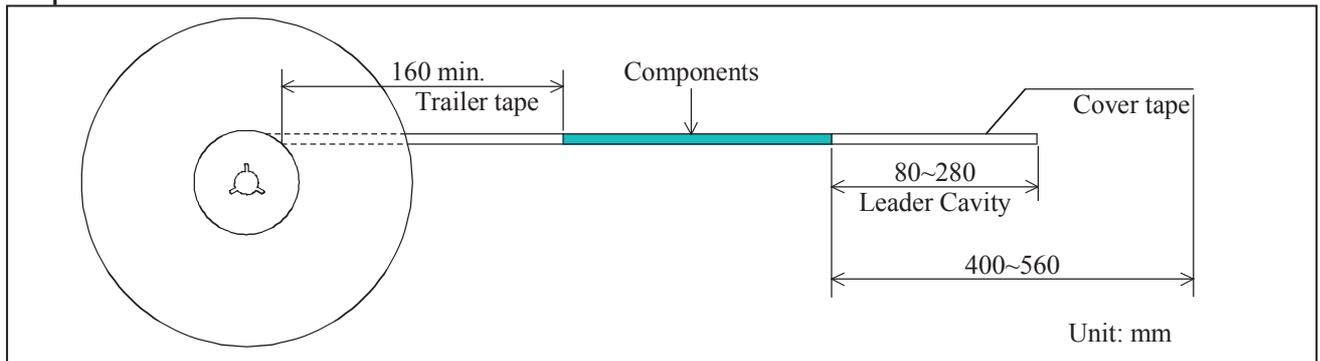
SAYEY2G53CA0F0A (Band7 / Balanced / LR / 1814)

Dimensions of Tape & Reel unit: mm

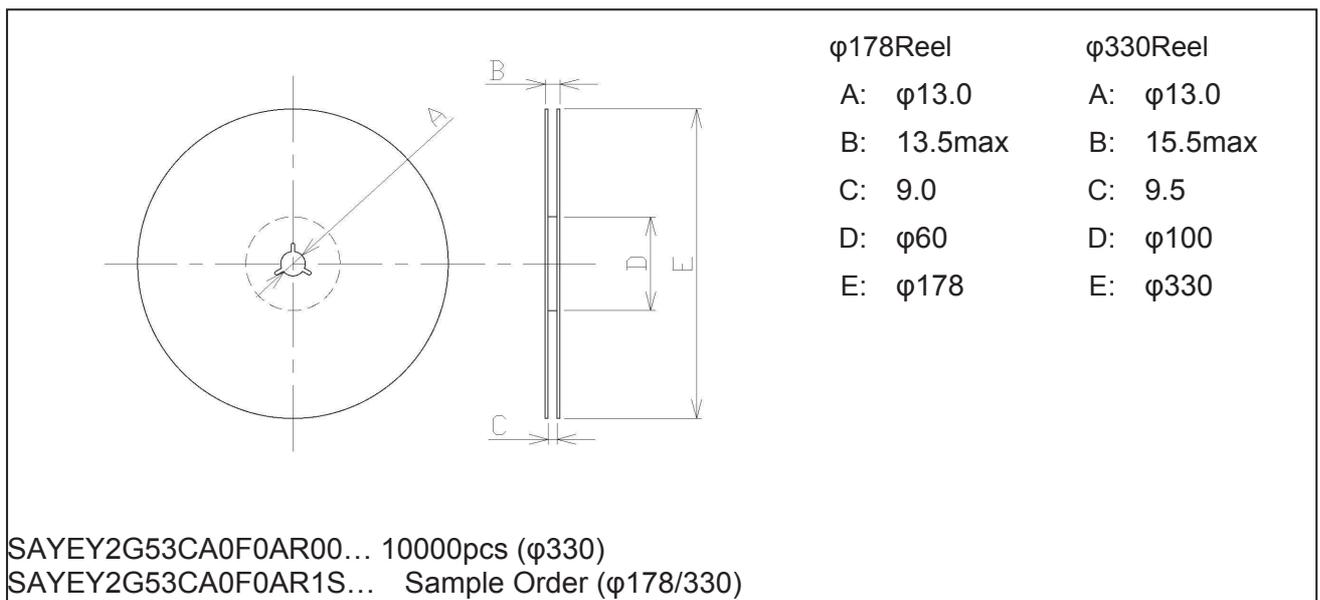
Carrier Tape



Tape



Reel



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.

Please note that the only warranty that we provide regarding the products is its conformance to the specifications provided herein. Accordingly, we shall not be responsible for any defects in products or equipment incorporating such products, which are caused under the conditions other than those specified in this specification.

WE HEREBY DISCLAIMS ALL OTHER WARRANTIES REGARDING THE PRODUCTS, EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, THAT THEY ARE DEFECT-FREE, OR AGAINST INFRINGEMENT OF INTELLECTUAL PROPERTY RIGHTS.

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.

Important Notice (2/2)

- 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.

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

Customer acknowledges that engineering samples may deviate from specifications and may contain defects due to their development status.

We reject any liability or product warranty for engineering samples.

In particular we disclaim liability for damages caused by

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

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