

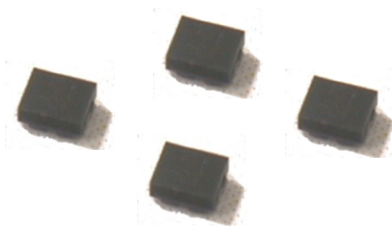
Datasheet of SAW Device

SAW Duplexer
for Band3 / Unbalanced / LR /1814

Murata PN: SAYEY1G74BC0B0A

■ Feature

- LTE-A
- High Power Durability



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

SAYEY1G74BC0B0A (Band3 / Unbalanced / LR / 1814)

General Information

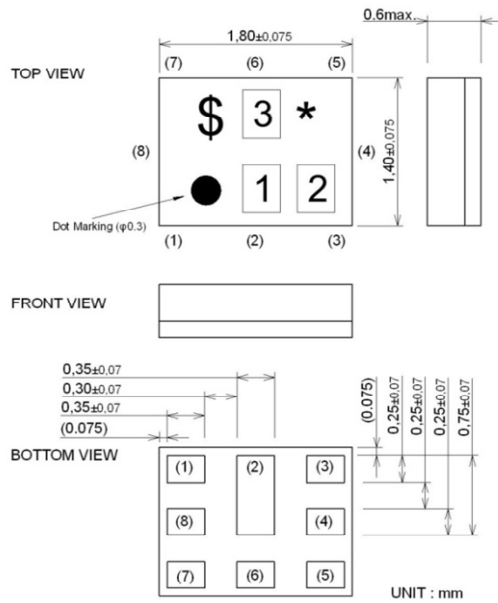
| | |
|--|--|
| - Operating temperature | : -20 to +85 deg.C |
| - Storage temperature | : -40 to +85 deg.C |
| - Input Power | : +29.5 dBm 5000 h +50 deg.C +30.0 dBm 3000 h +50 deg.C |
| - D.C. Volatage between the terminals | : 3V (25+/-2 deg.C) |
| - Minimum Resistance between the terminals | : 10M ohm |
| - RoHS compliance | : Yes |
| - ESD (ElectroStatic Discharge) sensitive device | |

SAYEY1G74BC0B0A (Band3 / Unbalanced / 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 : 6

2 : W

3 : A

Terminal Number

(6) : Ant

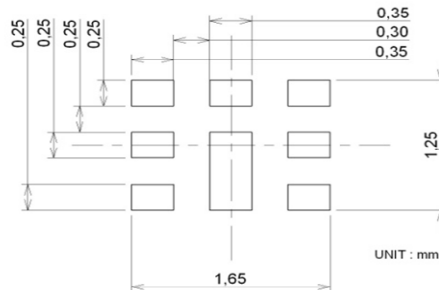
(3) : TX

(1) : RX

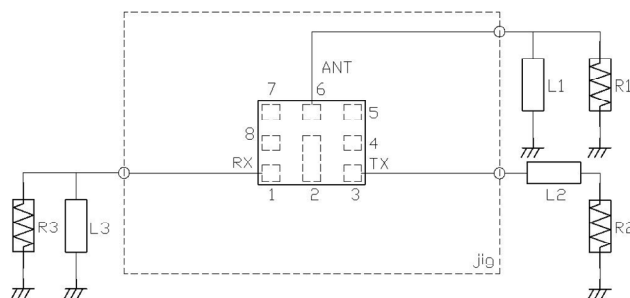
Others : GND

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

Land Pattern



Measurement Circuit (Top Thru View)



| | |
|-------------|---------------------------|
| R1 : 50 ohm | L1 :3.9nH(Ideal inductor) |
| | :4.7nH(LQP03TN4N7) |
| | <Reference> |
| R2 : 50 ohm | L2 :2nH(Ideal inductor) |
| R3 : 50 ohm | L3 :8nH(Ideal inductor) |
| | |
| | |

SAYEY1G74BC0B0A (Band3 / Unbalanced / LR / 1814)

Electrical Characteristic < TX→ANT. >

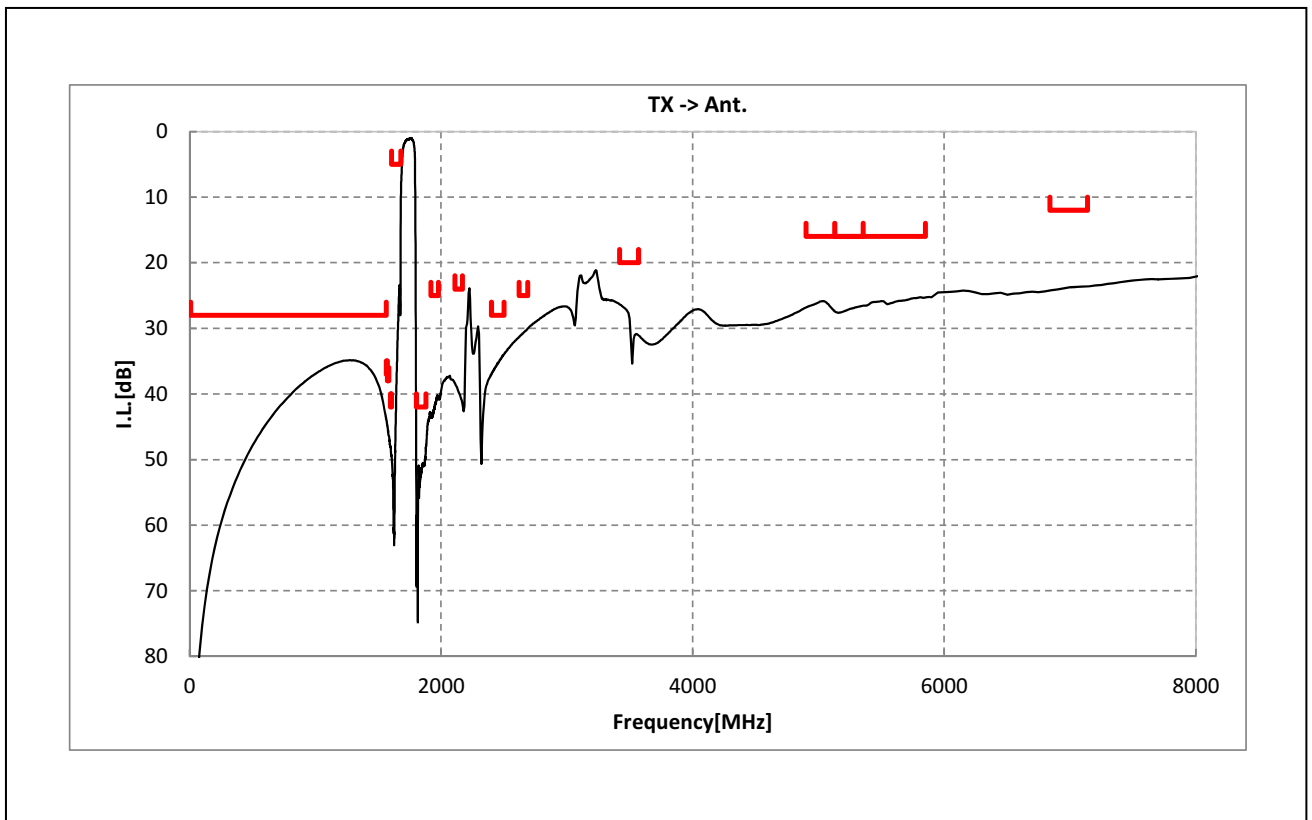
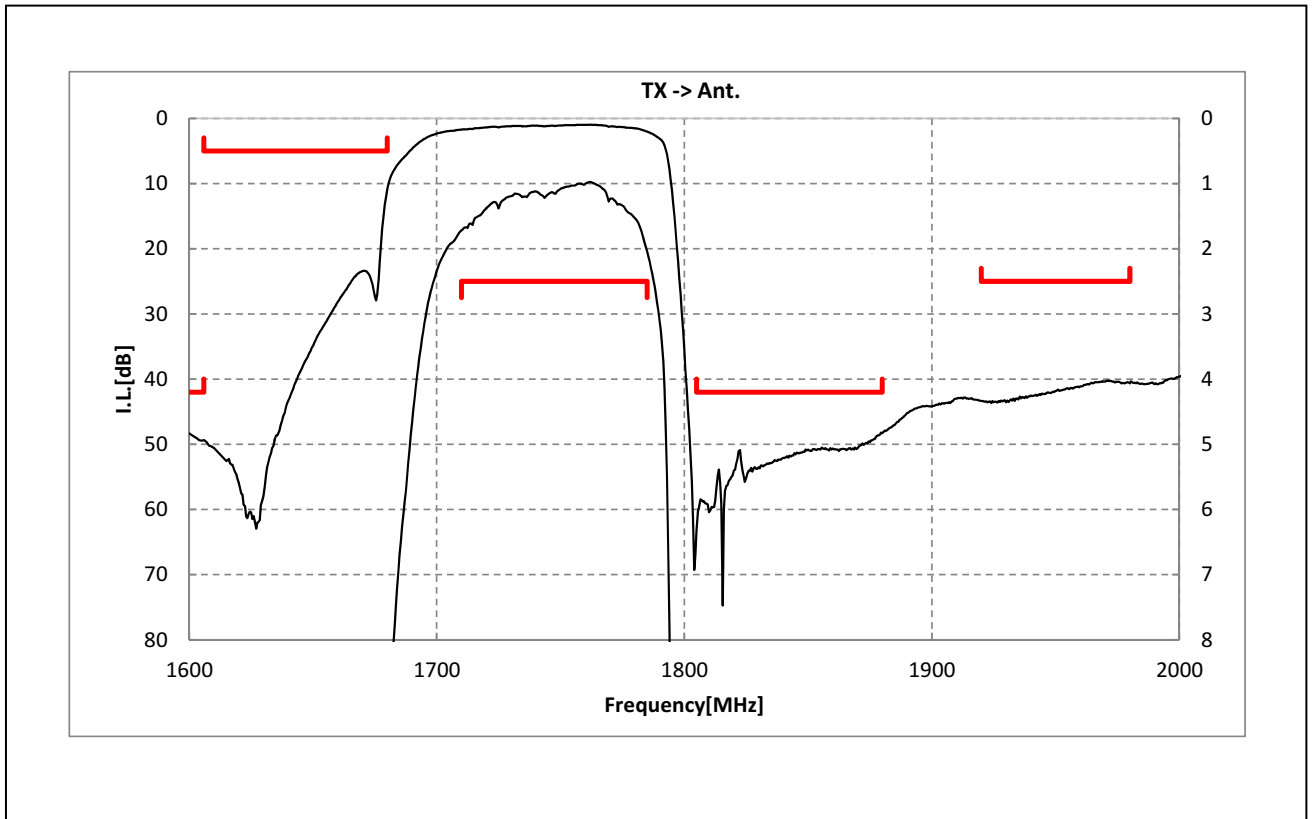
| TX → ANT. | | Characteristics (-20 to +85 deg.C) | | | Unit | Note |
|----------------------|------------------------|---------------------------------------|--------|------|-------------------|-------------------------------|
| | | min. | typ.* | max. | | |
| Center Frequency | | | 1747.5 | | MHz | |
| Insertion Loss | 1710. to 1785. MHz | | 2.0 | 2.5 | dB | |
| | 1710. to 1785. MHz | | 2.0 | 2.4 | dB | +23 to +27deg.C |
| | 1712.5 to 1782.5 MHz | | 1.8 | 2.4 | dB _{INT} | Any 4.5MHz |
| | 1712.5 to 1782.5 MHz | | 1.8 | 2.3 | dB _{INT} | +23 to +27deg.C, Any 4.5MHz |
| Ripple Deviation | 1710. to 1785. MHz | | 0.4 | 1.1 | dB | Over any 5MHz in-band |
| VSWR | 1710. to 1785. MHz | | 1.7 | 2.2 | | ANT. |
| | 1710. to 1785. MHz | | 1.6 | 2.1 | | TX |
| Absolute Attenuation | 10. to 1565.42 MHz | 28 | 34 | | dB | |
| | 703. to 748. MHz | 30 | 40 | | dB | B28 Tx CA |
| | 716. to 756. MHz | 35 | 40 | | dB | B28 Rx Band |
| | 814. to 849. MHz | 33 | 38 | | dB | B26 Tx CA |
| | 832. to 862. MHz | 33 | 38 | | dB | B26 Tx CA |
| | 814. to 849. MHz | 33 | 38 | | dB | B20 Tx CA |
| | 880. to 915. MHz | 33 | 37 | | dB | B8 Tx CA |
| | 925. to 960. MHz | 32 | 37 | | dB | |
| | 1226. to 1250. MHz | 30 | 34 | | dB | |
| | 1496. to 1511. MHz | 33 | 38 | | dB | B21 Rx Band |
| | 1559. to 1563. MHz | 36 | 42 | | dB | Compass |
| | 1565.42 to 1573.37 MHz | 37 | 43 | | dB | Wideband GPS, lower side-lobe |
| | 1573.37 to 1577.47 MHz | 38 | 44 | | dB | Regular GPS, main-lobe |
| | 1577.47 to 1585.42 MHz | 38 | 44 | | dB | Wideband GPS, upper side-lobe |
| | 1597.55 to 1605.89 MHz | 42 | 45 | | dB | GLONASS |
| | 1605.89 to 1680. MHz | 5.0 | 14.0 | | dB | |
| | 1805. to 1880. MHz | 42 | 48 | | dB | Rx |
| | 1920. to 1980. MHz | 20 | 40 | | dB | |
| | 2110. to 2170. MHz | 24 | 38 | | dB | |
| | 2400. to 2500. MHz | 28 | 34 | | dB | ISM2.4GHz |
| | 2620. to 2690. MHz | 25 | 30 | | dB | |
| | 3420. to 3570. MHz | 20 | 24 | | dB | 2fo |
| | 4900. to 5850. MHz | 16 | 25 | | dB | ISM5GHz |
| | 5100. to 5385. MHz | 18 | 27 | | dB | |
| | 5130. to 5355. MHz | 18 | 27 | | dB | 3fo |
| 6840. to 7140. MHz | 12 | 22 | | dB | | |
| 8550. to 8925. MHz | 6.0 | 16.0 | | dB | | |
| 10260. to 10710. MHz | 10 | 20 | | dB | | |
| 11970. to 12495. MHz | 6.0 | 16.0 | | dB | | |
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* Typical value at 25±2deg.C

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Electrical Characteristic

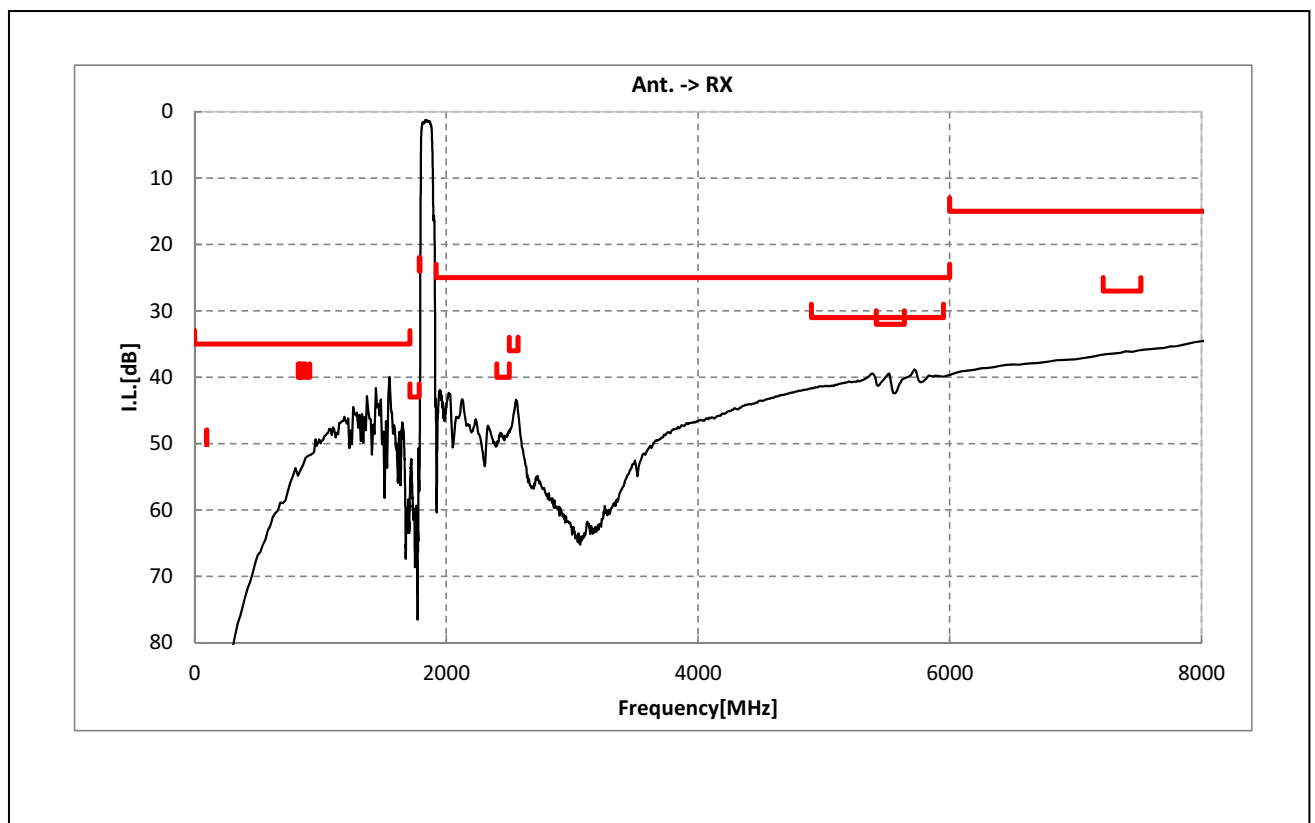
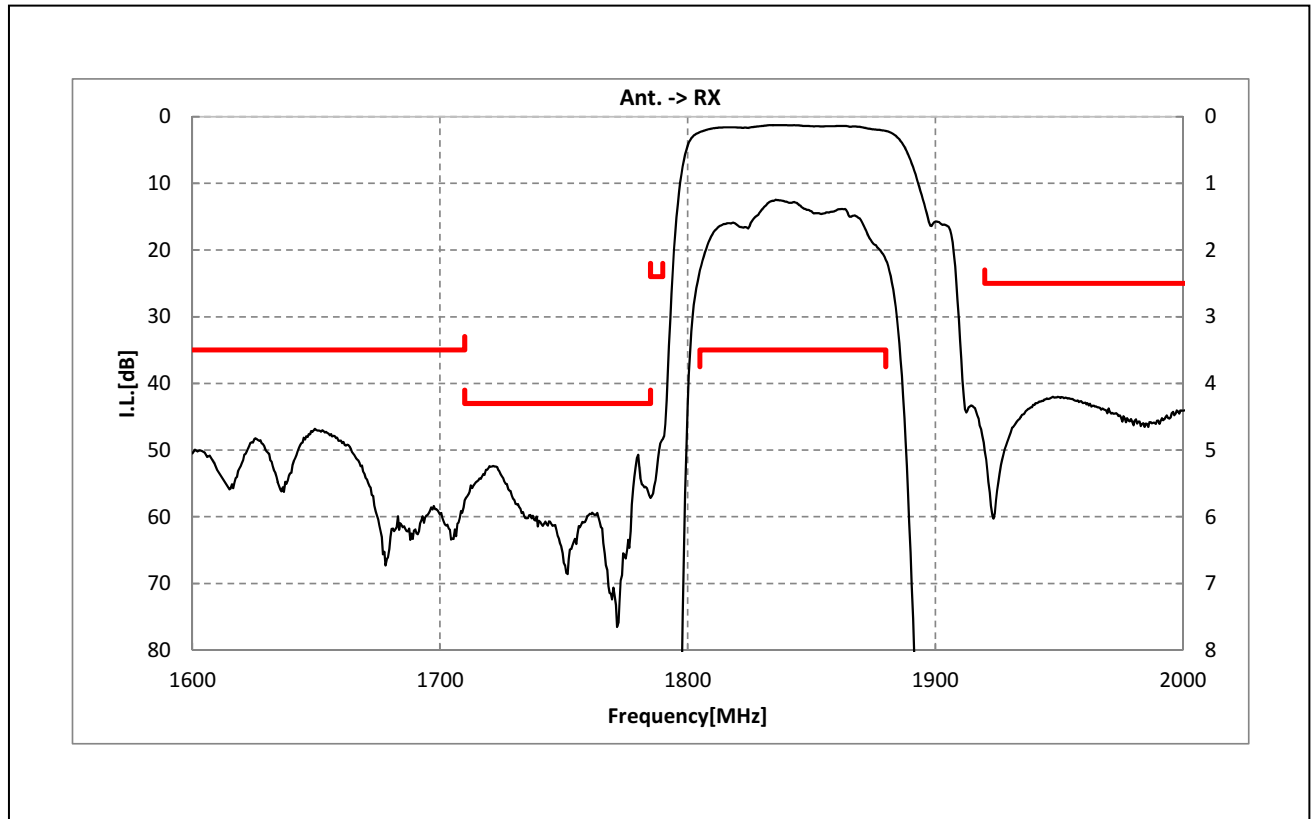
< TX→ANT. >



SAYEY1G74BC0B0A (Band3 / Unbalanced / LR / 1814)

Electrical Characteristic

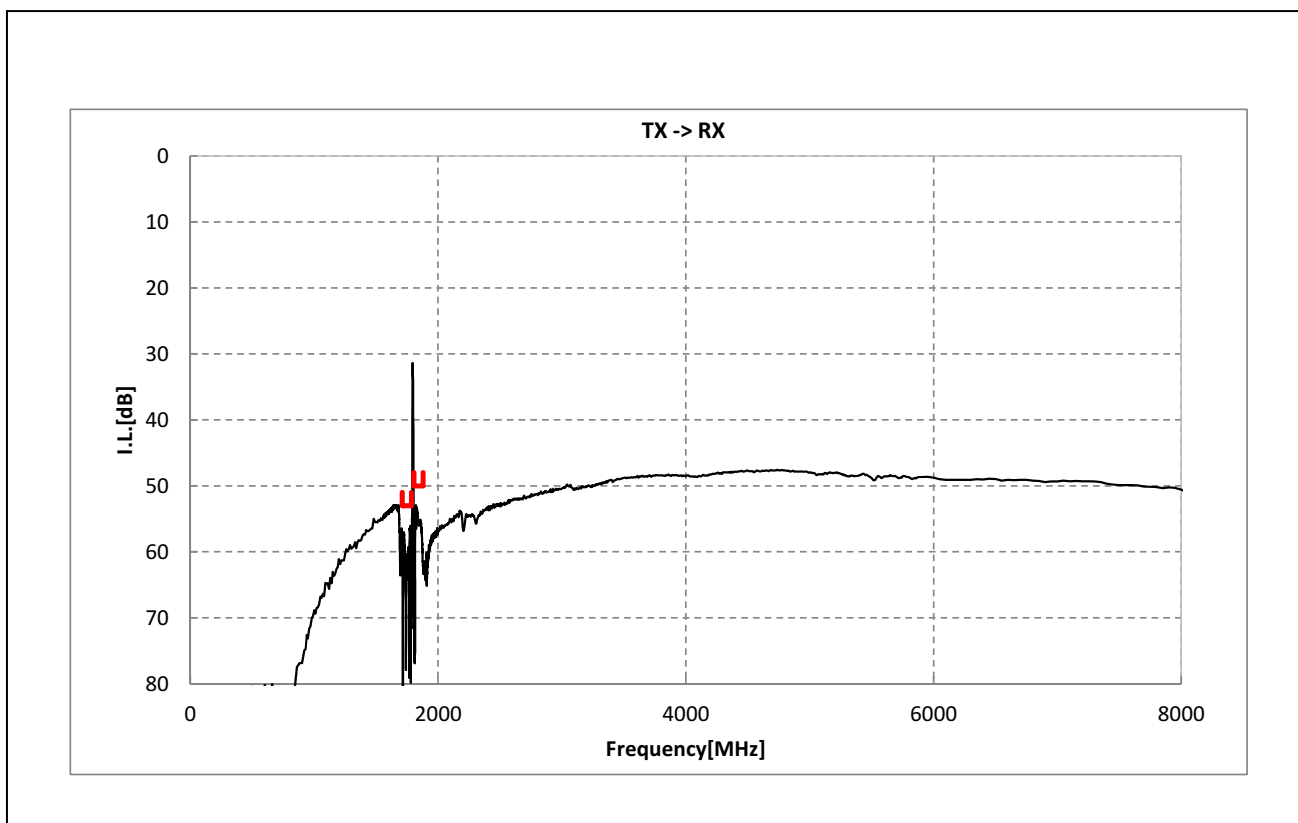
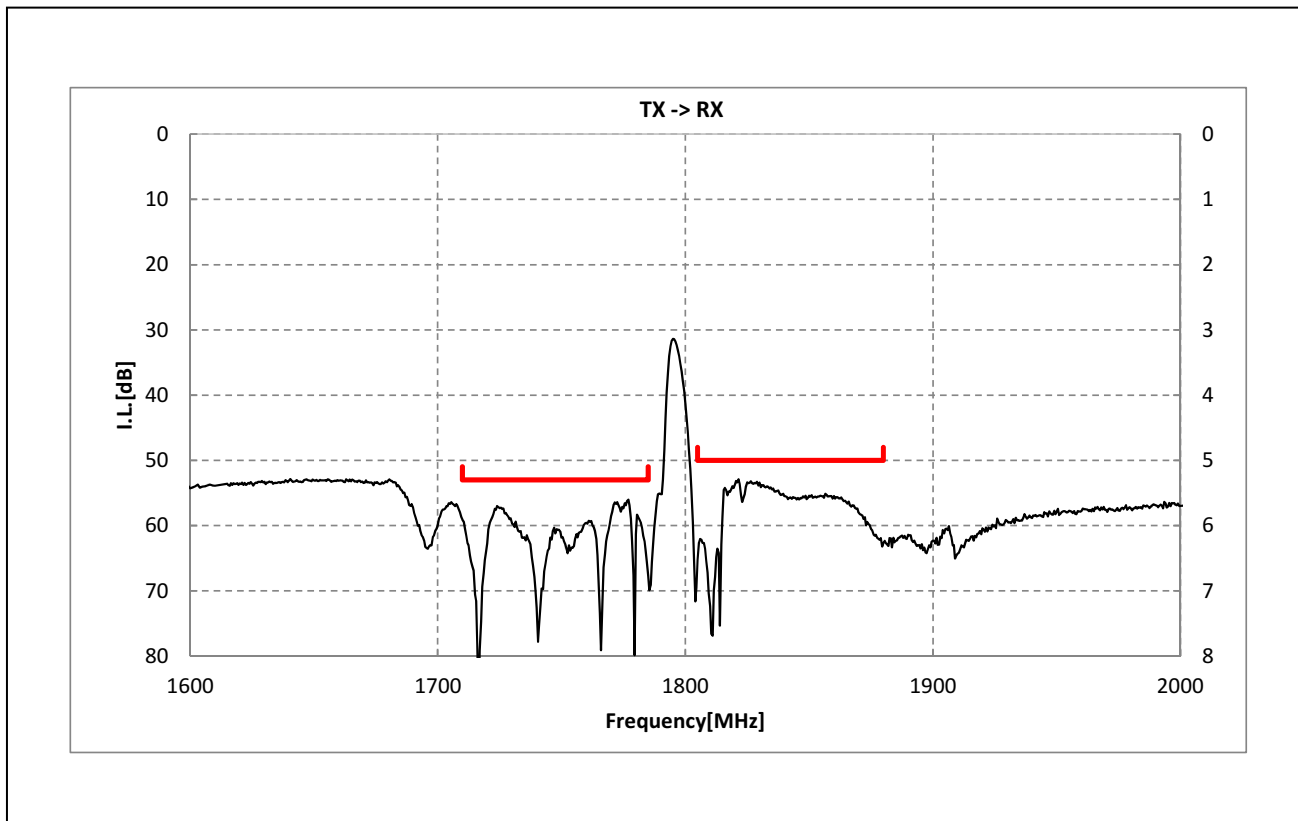
< ANT. → RX >



SAYEY1G74BC0B0A (Band3 / Unbalanced / LR / 1814)

Electrical Characteristic

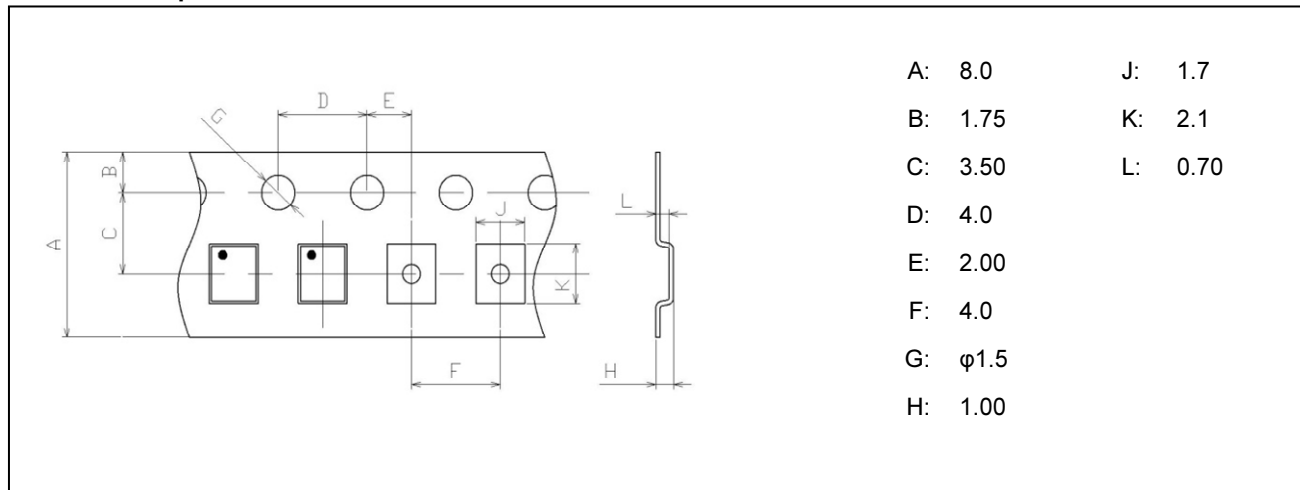
< TX→RX. >



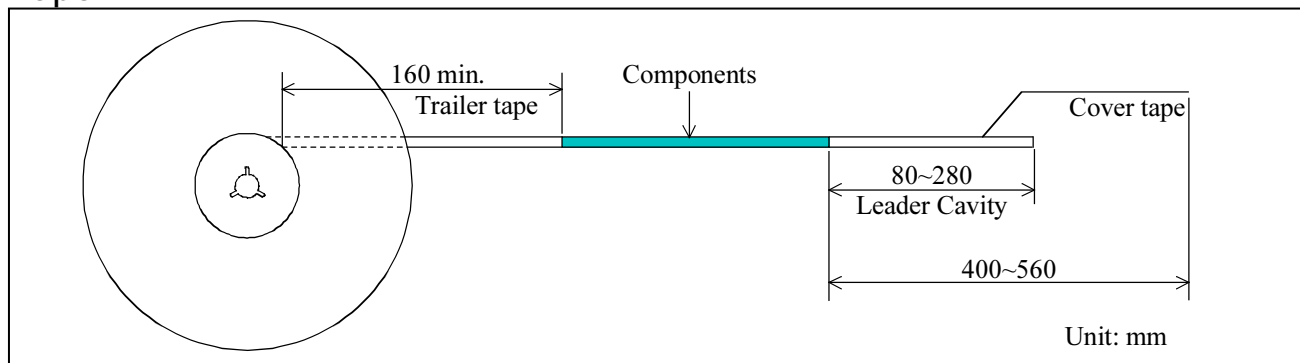
SAYEY1G74BC0B0A (Band3 / Unbalanced / LR / 1814)

Dimensions of Tape & Reel unit: mm

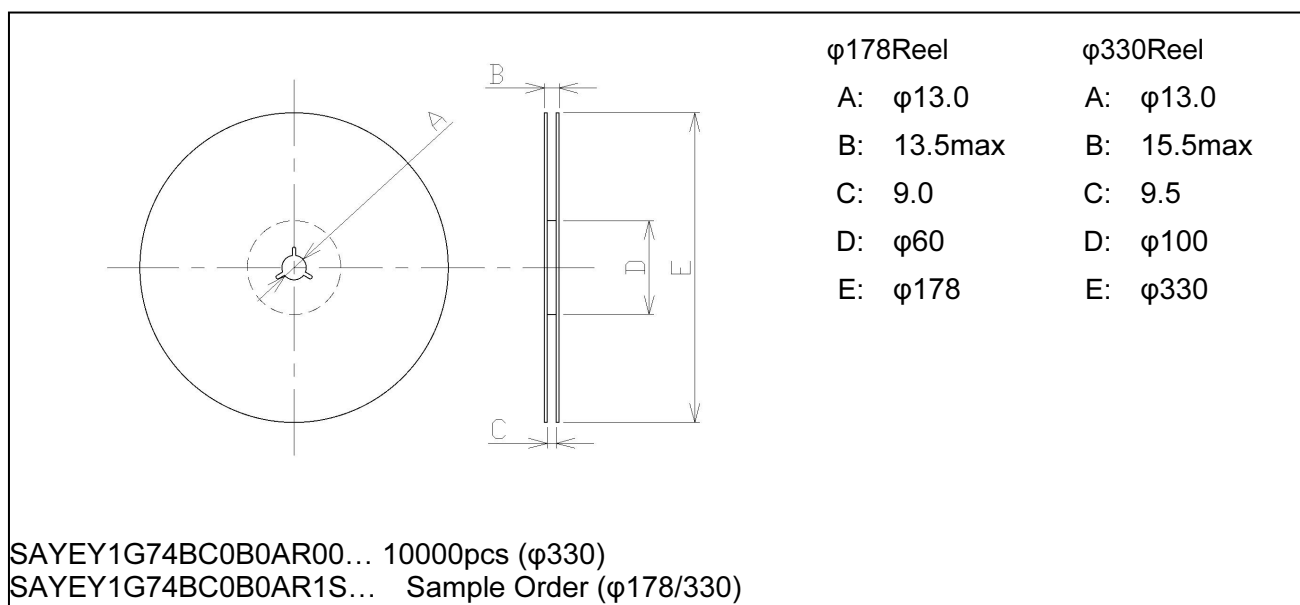
Carrier Tape



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)

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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.

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- 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.

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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 surge voltage.

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Moreover, you must comply with "foreign exchange and foreign trade law", the "U.S. export administration regulations", etc.

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In particular we disclaim liability for damages caused by

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- improper use of engineering samples.

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