

# Datasheet of SAW Device

# SAW Duplexer

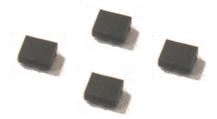
for Band3 / Unbalanced / LR /1814

# Murata PN: SAYEY1G74BC0B0A



≻ 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.





#### **General Information**

<ul> <li>Operating temperature</li> </ul>	: -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 devi	ce



#### Package Dimensions & Recommended Land Pattern unit: mm **Dimensions** Marking : Laser Printing 0.6ma 1,80±0,075

(7)

(8)

TOP VIEW

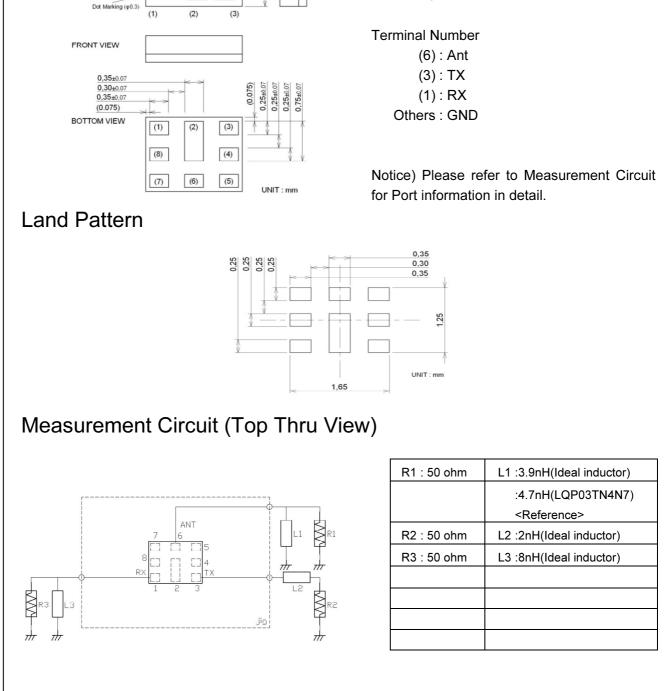
(6)

3 \* (5)

2

(4) <sup>(4)</sup>

- \* : Month code(Refer to the table A)
- \$ : Date code(Refer to the table B)
- 1:6
- 2 : W
- 3 : A





# Electrical Characteristic < TX→ANT. >

min.         vp.*         max.           center Frequency         1747.5         MHz         2.0         2.5         dB           170.         10         1785.         MHz         2.0         2.4         dB         r2210 + 27deg.C           1712.5         10         1782.5         MHz         1.8         2.3         dB <sub>krr</sub> r2310 + 27deg.C         C, my 4.5MHz           1712.5         10         1782.5         MHz         1.8         2.3         MB <sub>krr</sub> r2310 + 27deg.C         Mrz           Ripple Deviation         1710.         10         1785.         MHz         1.6         2.1         TX           VSWR         1710.         10         1785.         MHz         3.4         0.4         dB         B28 Tx CA         CA           703.         10         768.6         MHz         3.3         3.8         dB         B26 Tx CA         B28 Tx CA           718.         0         760.         MHz         3.3         3.8         dB         B27 Tx CA           703.         10         77.4         MHz         3.3         3.8         dB         B27 Tx CA           814.         0.840         MHz		$\langle \rightarrow ANT.$				Cha	racteris to +85 de		Unit	Note
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         2.3         dB <sub>MT</sub> +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         1.6         2.1         TX           Absolute Attenuation         10.         to         1565.42         MHz         28         34         dB           703.         to         748.         MHz         30         40         dB         B28 Tx CA           832.         to         849.         MHz         33         38         dB         B26 Tx CA           841.         to         849.         MHz         33         38         dB         B26 Tx CA           832.         to         860.         MHz         33         37         dB         B26 Tx CA           844						min.		max.		
Absolute         1710.         to         1785.         MHz         2.0         2.4         dB         +23 to +27deg.C           1712.5         to         1782.5         MHz         1.8         2.4         dB <sub>NT</sub> Any 4.5MHz           1712.5         to         1782.5         MHz         1.8         2.4         dB <sub>NT</sub> Any 4.5MHz           Ripple Deviation         1710.         to         1785.         MHz         0.4         1.1         dB         Over any 5MHz in-band           VSWR         1710.         to         1785.         MHz         1.6         2.1         TX           Absolute Attenuation         10.         to         1565.42         MHz         28         34         dB           716.         to         748.         MHz         30         40         dB         B28 Tx CA           832.         to         862.         MHz         33         38         dB         B26 Tx CA           832.         to         862.         MHz         33         38         dB         B20 Tx CA           830.         to         915.         MHz         33         38         dB         B20 Tx CA										
Instruct         Instruct         Instruct         Instruct         Instruct         Any 4.5MHz           Ripple Deviation         1712.5         to         1782.5         MHz         Instruct         Instruc	Insertion Loss		to							
Interface         1712.5         to         1782.5         MHz         1.8         2.3         dB <sub>NT</sub> +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         1.6         2.1         TX           Absolute Attenuation         10.         to         1565.42         MHz         30         40         dB         B28 Tx CA           716.         to         756.         MHz         33         38         dB         B26 Tx CA           814.         to         849.         MHz         33         38         dB         B26 Tx CA           825.         to         960.         MHz         33         38         dB         B20 Tx CA           880.         to         915.         MHz         33         38         dB         B20 Tx CA           925.         to         960.         MHz         33         37         dB         B           1266.         to         1550.         MHz         30         34         dB         dB			to							
Ripple Deviation         1710.         10.         1785.         MHz         0.4         1.1         dB         Over any 5MHz in-band           VSWR         1710.         to         1785.         MHz         1.7         2.2         ANT.           Absolute Attenuation         10.         to         1565.42         MHz         28         34         dB           703.         to         748.         MHz         30         40         dB         B28 Tx CA           716.         to         756.         MHz         33         38         dB         B26 Tx CA           814.         to         849.         MHz         33         38         dB         B20 Tx CA           832.         to         862.         MHz         33         38         dB         B20 Tx CA           844.         to         849.         MHz         33         38         dB         B20 Tx CA           850.         to         915.         MHz         30         34         dB           1226.         to         1573.37         MHz         37         43         dB         Wideband GPS, lower side-lobe           1575.75         to         1587.3			to						dB <sub>INT</sub>	
VSWR         1710.         to         1785.         MHz         1.7         2.2         ANT.           Absolute Attenuation         10.         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           703.         to         748.         MHz         30         40         dB         B28 Tx CA           814.         to         849.         MHz         33         38         dB         B26 Tx CA           832.         to         862.         MHz         33         38         dB         B26 Tx CA           841.         to         849.         MHz         33         37         dB         B20 Tx CA           825.         to         960.         MHz         32         37         dB         B21 Tx Band           1226.         to         1551.         MHz         30         34         dB         Compass           1555.10         1653.         MHz         36			to							
1710.         10         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         33         40         dB         B26 Tx CA           814.         to         849.         MHz         33         38         dB         B26 Tx CA           814.         to         849.         MHz         33         38         dB         B20 Tx CA           814.         to         849.         MHz         33         38         dB         B20 Tx CA           880.         to         915.         MHz         33         37         dB         B20 Tx CA           1226.         to         1250.         MHz         30         34         dB         B21 Tx Band           1559.         to         1563.         MHz         36         42         dB         Campass           1559.         to         1563.         MHz         38         44			to						dB	Over any 5MHz in-band
Absolute Attenuation         10.         to         1565.42         MHz         28         34         dB           773.         to         748.         MHz         30         40         dB         B28 Tx CA           716.         to         776.         MHz         33         38         dB         B26 Tx CA           832.         to         862.         MHz         33         38         dB         B26 Tx CA           832.         to         862.         MHz         33         38         dB         B20 Tx CA           832.         to         862.         MHz         33         38         dB         B20 Tx CA           880.         to         915.         MHz         33         37         dB         B8 Tx CA           925.         to         960.         MHz         33         38         dB         CA           1496.         to         1511.         MHz         33         38         dB         CA           1496.         to         1573.37         MHz         36         42         dB         Compass           1565.42         to         1573.37         MHz         38	VSWR		to				1.7			
703.       10       748.       MHz       30       40       dB       B28 Tx CA         716.       10       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         814.       to       849.       MHz       33       37       dB       B8 Tx CA         925.       to       960.       MHz       33       38       dB       B21 Tx DA         1226.       to       1250.       MHz       33       38       dB       B21 Rx Band         1559.       to       1563.       MHz       36       42       dB       Compass         1565.42       to       1573.37       MHz       37       43       dB       Regular GPS, nain-lobe         1577.47       to       1585.42       MHz       38       44       dB       Regular GPS, upper side-lobe         1597.55       to			to					2.1		TX
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         814.       to       849.       MHz       33       37       dB       B20 Tx CA         880.       to       915.       MHz       33       37       dB       B20 Tx CA         925.       to       960.       MHz       32       37       dB       Image: transmitted transmitt	Absolute Attenuation		to						dB	
814.         to         849.         MHz         33         38         dB         B26 Tx CA           832.         to         862.         MHz         33         38         dB         B20 Tx CA           814.         to         849.         MHz         33         38         dB         B20 Tx CA           814.         to         849.         MHz         33         37         dB         B8 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 Tx Band           1555.         to         1563.         MHz         37         43         dB         Compass           1665.42         to         1577.47         MHz         38         44         dB         Regular GPS, main-lobe           1577.57         to         1680.         MHz         20 <td< td=""><td></td><td></td><td>to</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>			to							
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       Image: transform of the transform of the transform of the transform of the transform of transform o			to							
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       Extract         1226.       to       1250.       MHz       30       34       dB       Extract         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         1577.47       to       1585.42       MHz       38       44       dB       Regular GPS, main-lobe         1597.55       to       1605.89       MHz       42       45       dB       GLONASS         1605.89       to       1880.       MHz       42       48       dB       Rx         1920.       to       1980.       MHz       20       40       dB       2400.       2600.       MHz       25       30 <td></td> <td></td> <td>to</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>dB</td> <td></td>			to						dB	
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       Regular 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       GLONASS         1605.89       to       1680.       MHz       5.0       14.0       dB       1400         1805.       to       1880.       MHz       20       40       dB       2000         1920.       to       1980.       MHz       20       40       dB       2400       24       38       dB         2400.       to <t< td=""><td></td><td>832.</td><td>to</td><td>862.</td><td></td><td></td><td></td><td></td><td>dB</td><td></td></t<>		832.	to	862.					dB	
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         1577.47       to       1585.42       MHz       38       44       dB       Regular GPS, main-lobe         1577.47       to       1585.42       MHz       38       44       dB       Wideband GPS, lower side-lobe         1597.55       to       1605.89       MHz       42       45       dB       GLONASS         1605.89       to       1680.       MHz       42       48       dB       ISM2.40         1805.       to       1880.       MHz       42       48       dB       ISM2.4GHz         1920.       to       1980.       MHz       20       40       dB       ISM2.4GHz         2620.       to       2500.			to							
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       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       dB         1805.       to       1880.       MHz       20       40       dB         2110.       to       2170.       MHz       28       34       dB       ISM2.4GHz         2620.       to       2690.       MHz       25       30       dB       ISM2.4GHz         3420.       to       3570.       MHz       20       24       dB       ISM5GHz         5100.       to       5355.       MHz       18			to	915.					dB	B8 Tx CA
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       50       14.0       dB       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       25       30       dB       3420.       to       3570.       MHz       20       24       dB			to							
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          2400.       to       2170.       MHz       28       34       dB       ISM2.4GHz         2620.       to       2690.       MHz       25       30       dB          3420.       to       3570.       MHz       22       dB       ISM5GHz          5130.       to       <			to							
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       20       40       dB          1920.       to       1980.       MHz       24       48       dB          2110.       to       2170.       MHz       24       38       dB          2400.       to       2500.       MHz       25       30       dB          3420.       to       3570.       MHz       20       24       dB       ISM5GHz         5100.       5850.       MHz			to						dB	B21 Rx Band
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       dB         1805.       to       1880.       MHz       42       48       dB       Rx         1920.       to       1980.       MHz       20       40       dB       dB         2110.       to       2170.       MHz       24       38       dB       dB         2400.       to       2500.       MHz       28       34       dB       ISM2.4GHz         2620.       to       2690.       MHz       25       30       dB       dB         3420.       to       3570.       MHz       20       24       dB       2fo         4900.       to       5850.       MHz       18       27       dB       dB         5130.       to       5355.       MHz		1559.			MHz	36			dB	
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       dB         1805.       to       1880.       MHz       42       48       dB       Rx         1920.       to       1980.       MHz       20       40       dB       dB         2110.       to       2170.       MHz       24       38       dB       dB         2400.       to       2500.       MHz       28       34       dB       ISM2.4GHz         2620.       to       2690.       MHz       25       30       dB       dB         3420.       to       3570.       MHz       20       24       dB       2fo         4900.       to       5850.       MHz       18       27       dB       dB         5130.       to       5355.       MHz			to	1573.37		37			dB	Wideband GPS, lower side-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       dB         1805.       to       1880.       MHz       42       48       dB       Rx         1920.       to       1980.       MHz       20       40       dB       dB         2110.       to       2170.       MHz       24       38       dB       dB         2400.       to       2500.       MHz       28       34       dB       ISM2.4GHz         2620.       to       2690.       MHz       25       30       dB       dB         3420.       to       3570.       MHz       20       24       dB       2fo         4900.       to       5850.       MHz       16       25       dB       ISM5GHz         5100.       to       5385.       MHz       18       27       dB       3fo         6840.       to       7140.       MHz       12		1573.37	to						dB	Regular GPS, main-lobe
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       2500.       48       48       260       48 <t< td=""><td></td><td>1577.47</td><td>to</td><td>1585.42</td><td>MHz</td><td>38</td><td></td><td></td><td>dB</td><td>Wideband GPS, upper side-lobe</td></t<>		1577.47	to	1585.42	MHz	38			dB	Wideband GPS, upper side-lobe
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       2500.       48       48       260       48 <t< td=""><td></td><td>1597.55</td><td>to</td><td>1605.89</td><td>MHz</td><td>42</td><td>45</td><td></td><td>dB</td><td>GLONASS</td></t<>		1597.55	to	1605.89	MHz	42	45		dB	GLONASS
1805.       to       1880.       MHz       42       48       dB       Rx         1920.       to       1980.       MHz       20       40       dB       2110.       10       2170.       MHz       24       38       dB       2400.       10       2500.       MHz       28       34       dB       ISM2.4GHz         2620.       to       2690.       MHz       25       30       dB       260       3570.       MHz       20       24       dB       2fo         3420.       to       3570.       MHz       20       24       dB       2fo       2fo         4900.       to       5850.       MHz       16       25       dB       ISM5GHz         5100.       to       5385.       MHz       18       27       dB       3fo         6840.       to       7140.       MHz       12       22       dB       28       3fo         8550.       to       8925.       MHz       6.0       16.0       dB       28       27       dB       20       24       48       48       48       48       48       48       48       48       48       48 <td></td> <td></td> <td></td> <td>1680.</td> <td>MHz</td> <td>5.0</td> <td>14.0</td> <td></td> <td>dB</td> <td></td>				1680.	MHz	5.0	14.0		dB	
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.         3420.       to       3570.       MHz       20       24       dB       2fo         4900.       to       5850.       MHz       16       25       dB       ISM5GHz         5100.       to       5385.       MHz       18       27       dB       3fo         6840.       to       7140.       MHz       12       22       dB       28         8550.       to       8925.       MHz       6.0       16.0       dB       29         10260.       to       10710.       MHz       10       20       dB       48				1880.		42	48		dB	Rx
2110.       to       2170.       MHz       24       38       dB         2400.       to       2500.       MHz       28       34       dB       ISM2.4GHz         2620.       to       2690.       MHz       25       30       dB       3420.         3420.       to       3570.       MHz       20       24       dB       2fo         4900.       to       5850.       MHz       16       25       dB       ISM5GHz         5100.       to       5385.       MHz       18       27       dB       3fo         6840.       to       7140.       MHz       12       22       dB       48         8550.       to       8925.       MHz       6.0       16.0       dB       48         10260.       to       10710.       MHz       10       20       dB       48				1980.	MHz	20	40		dB	
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         6840.       to       7140.       MHz       12       22       dB         8550.       to       8925.       MHz       6.0       16.0       dB         10260.       to       10710.       MHz       10       20       dB				2170.	MHz	24	38		dB	
3420.       to       3570.       MHz       20       24       dB       2fo         4900.       to       5850.       MHz       16       25       dB       ISM5GHz         5100.       to       5385.       MHz       18       27       dB       dB         5130.       to       5355.       MHz       18       27       dB       3fo         6840.       to       7140.       MHz       12       22       dB       48         8550.       to       8925.       MHz       6.0       16.0       dB       48         10260.       to       10710.       MHz       10       20       dB       48		2400.	to	2500.	MHz	28			dB	ISM2.4GHz
4900.       to       5850.       MHz       16       25       dB       ISM5GHz         5100.       to       5385.       MHz       18       27       dB       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		2620.	to	2690.	MHz	25	30		dB	
4900.       to       5850.       MHz       16       25       dB       ISM5GHz         5100.       to       5385.       MHz       18       27       dB       dB         5130.       to       5355.       MHz       18       27       dB       3fo         6840.       to       7140.       MHz       12       22       dB       48         8550.       to       8925.       MHz       6.0       16.0       dB       48         10260.       to       10710.       MHz       10       20       dB       48		3420.	to	3570.	MHz	20	24		dB	2fo
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				5850.	MHz	16	25		dB	ISM5GHz
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				5385.		18	27		dB	
6840.         to         7140.         MHz         12         22         dB           8550.         to         8925.         MHz         6.0         16.0         dB           10260.         to         10710.         MHz         10         20         dB		-		5355.		18	27		dB	3fo
8550. to 8925. MHz 6.0 16.0 dB 10260. to 10710. MHz 10 20 dB				7140.	MHz	12	22		dB	
10260. to 10710. MHz 10 20 dB				8925.		6.0	16.0		dB	
		10260.				10	20		dB	
				12495.		6.0	16.0		dB	
Image: state of the state of										
Image: sector of the sector										
Image: set of the										
Image: state of the state of										
Image: state of the state of										
Image: sector of the sector										
Image: state of the state of										
Image: sector of the sector										
Image: sector of the sector										
Image: state of the state of										
Image: state of the state of										
Image: Sector of the sector										

\* Typical value at 25±2deg.C



#### Electrical Characteristic $\langle ANT. \rightarrow RX \rangle$

AN	,			Characteristics (-20 to +85 deg.C)			Unit	Note		
					min.	typ.*	max.			
Center Frequency						1842.5		MHz		
Insertion Loss	1805.	to	1880.	MHz		2.6	3.5	dB		
	1805.	to	1880.	MHz		2.6	3.4	dB	+23 to +27deg.C	
	1807.5	to	1877.5	MHz		2.2	3.3	dB <sub>INT</sub>	Any 4.5MHz	
	1807.5	to	1877.5	MHz		2.2	3.2	dB <sub>INT</sub>	+23 to +27deg.C, Any 4.5MHz	
Ripple Deviation	1805.	to	1880.	MHz		0.7	1.7	dB	Over any 5 MHz in-band	
VSWR	1805.	to	1880.	MHz		1.7	2.3		ANT.	
	1805.	to	1880.	MHz		1.6	2.2		RX	
Absolute Attenuation	1.	to	1710.	MHz	30	39		dB		
			95.	MHz	50	109		dB	Rx-Tx	
	718.	to	748.	MHz	40	55		dB	B28-B Tx for CA	
	814.	to	849.	MHz	40	53		dB	B26 Tx for CA	
	832.	to	862.	MHz	40	51		dB	B20 Tx for CA	
	880.	to	915.	MHz	40	51		dB	B8 Tx for CA	
	1447.	to	1463.	MHz	30	41		dB	B21 Tx for CA	
	1615.	to	1690.	MHz	40	47		dB	2Tx - Rx	
	1710.	to	1785.	MHz	43	50		dB	Tx	
	1785.	to	1790.	MHz	24	49		dB	(Rx+Tx)/2	
	1920.	to	6000.	MHz	25	39		dB		
	2400.	to	2500.	MHz	40	48		dB	ISM 2.4GHz	
	2500.	to	2570.	MHz	36	43		dB	B7 Tx	
	2570.	to	3515.	MHz	40	45		dB		
	3515.	to	3760.	MHz	40	50		dB	Rx+Tx and 2x LO	
	3760.	to		MHz	15	27		dB		
	4900.	to	5950.	MHz	31	39		dB	ISM 5GHz	
	5205.	to	5660.	MHz	32	39		dB	3×LO, Rx + 2Tx	
	7220.	to	7520.	MHz	27	35		dB	4×LO	
	9025. 10830.	to	9400. 11280.	MHz	20 15	33 27		dB dB	5×LO	
				MHz					6×LO 7×LO	
	12635. 6000.		12750. 12750.	MHz	15 15	33 27		dB dB	/*L0	
	6000.	το	12750.	MHz	15	21		uБ		
					1					
1		_								

\* Typical value at 25±2deg.C



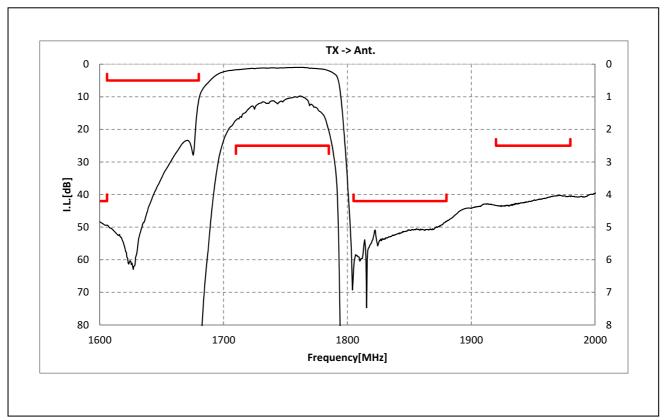
# Electrical Characteristic < TX→RX. >

	TX → RX			Cha (-20	iracteri to +85 d	stics eg.C)	Unit	Note		
				min.	typ.*	max.				
Isolation	1710. to	1785.	MHz	53	55		dB			
	1712.5 to	1782.5	MHz	53	57		dB <sub>INT</sub>	Any 4.5MHz		
	1805. to	1880.	MHz	50	53		dB			
	1807.5 to	1877.5	MHz	50	54		dB <sub>INT</sub>	Any 4.5MHz		
	1710. to	1785.	MHz	53	55		dB	+23 to +27deg.C		
	1712.5 to	1782.5	MHz	53	57		dB <sub>INT</sub>	+23 to +27deg.C +23 to +27deg.C, Any 4.5MHz +23 to +27deg.C +23 to +27deg.C, Any 4.5MHz		
	1805. to	1880.	MHz	50	53		dB	+23 to +27deg.C		
	1807.5 to	1877.5	MHz	50	54		dB <sub>INT</sub>	+23 to +27deg.C, Any 4.5MHz		
					<u> </u>					
					<u> </u>					
					<u> </u>		L			
					İ					
					<u> </u>					
							<u> </u>			
					<u> </u>					
					1					
					İ					
					1					

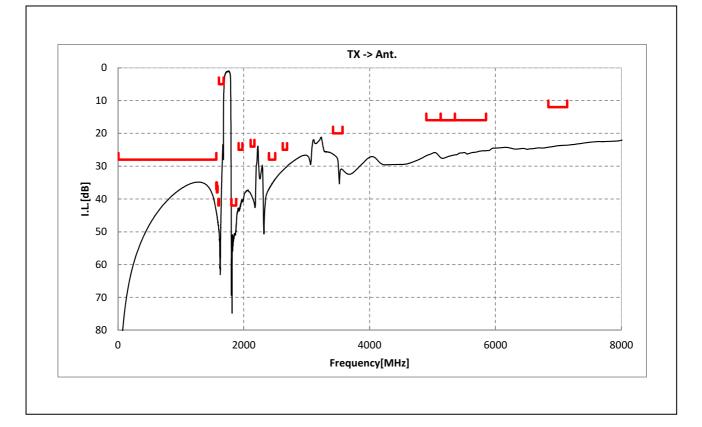
\* Typical value at 25±2deg.C



### **Electrical Characteristic**

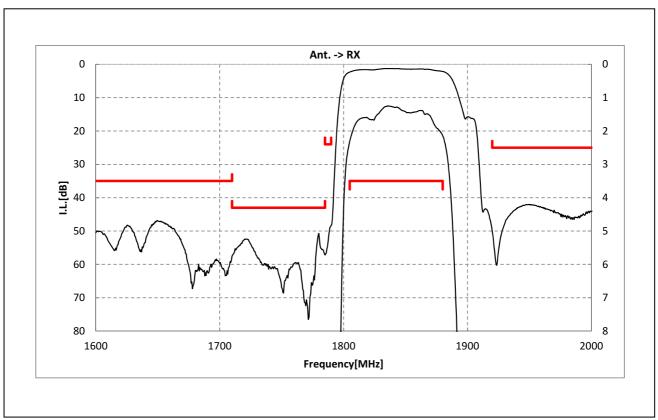


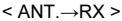
 $< TX \rightarrow ANT. >$ 

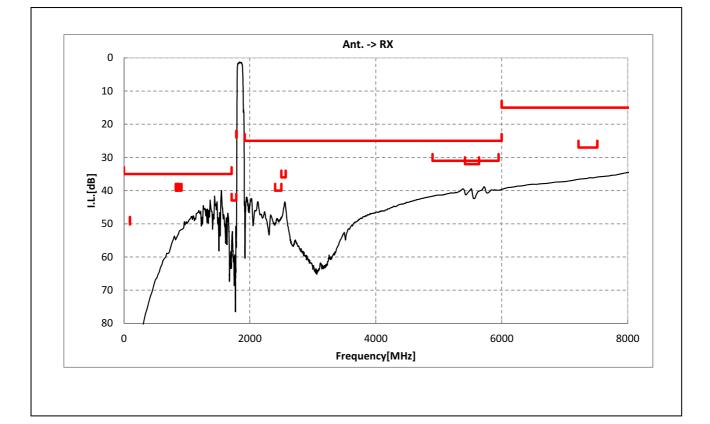




## **Electrical Characteristic**

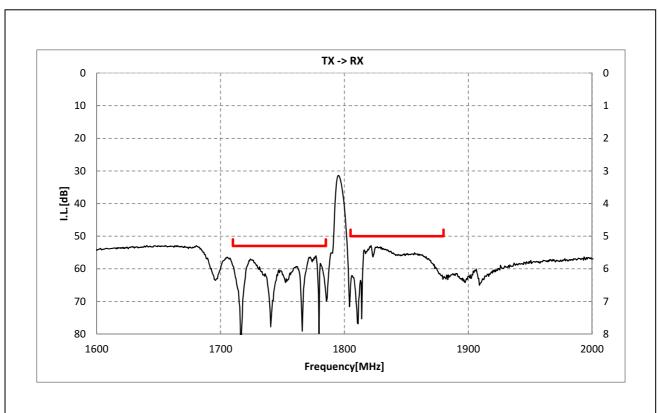


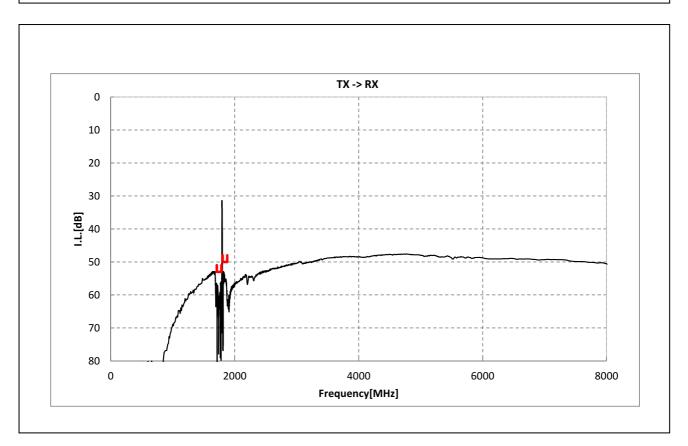






## **Electrical Characteristic**



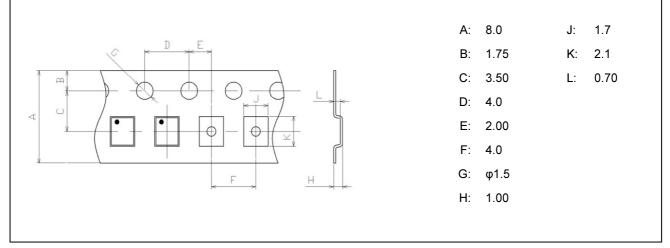


< TX→RX. >

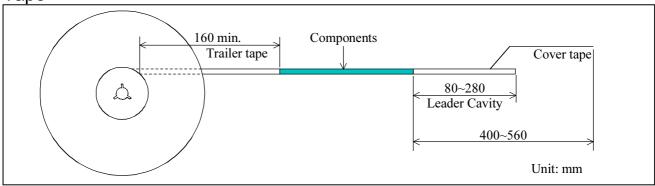


Dimensions of Tape & Reel unit: mm

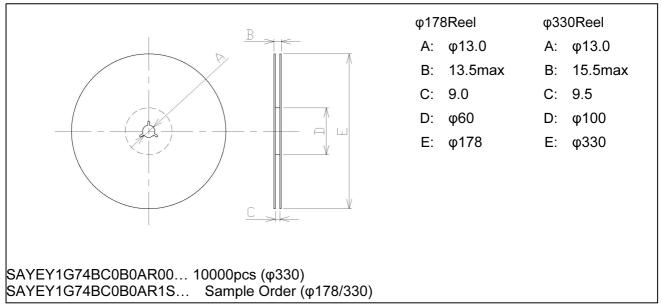
#### Carrier Tape



Tape



Reel





#### Marking Code

Table A: Month Code

<u> </u>	01071												
ſ	2013	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	2017 2021	Α	В	С	D	Е	F	G	н	J	к	L	м
ſ	2014	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	2018 2022	N	Ρ	Q	R	S	Т	U	V	¥	x	Y	Z
ſ	2015	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	2019 2023	а	b	īc	d	e	f	u	h	j	r.	l	m
ſ	2016	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
	2020 2024	n	p	q	r	t	t	J	U	З	¥	y	8

#### Table B: Date Code

date	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	
code	А	В	С	D	E	F	G	Η	J	К	
date	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	
code	L	М	Ν	Р	Q	R	S	Т	U	V	
date	21st	22nd	23rd	24th	25th	26th	27th	28th	29th	30th	31st
code	W	Х	Y	Z	а	b	ō	d	е	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 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 serge voltage.

We do not warrant or represent that any license, either express or implied, is granted under any our patent right, copyright, mask work right, or our other intellectual property right relating to any combination, machine, or process in which our products or services are used. Information provided by us regarding third-party products or services does not constitute a license from us to use such products or services or a warranty or endorsement thereof. Use of such information may require a license from a third party under the patents or other intellectual property of the third party, or a license from us under our patents or other intellectual property.

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.

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

•the use of the engineering sample other than for evaluation purposes, particularly the installation or integration in the product to be sold by you,

·deviation or lapse in function of engineering sample,

·improper use of engineering samples.

We disclaim any liability for consequential and incidental damages.

If you can't agree the above contents, you should inquire our sales.