

Datasheet of SAW Device

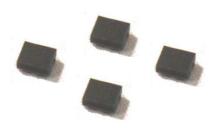
SAW Duplexer

for Band8 / Balanced / LR /1814

Murata PN: SAYEY897MCG0F0A

Feature

- ➤ Band8 LTE
- Low Insertion Loss
- > High Attenuation



Note: Murata SAW Component is applicable for Cellular /Cordless phone (Terminal) relevant market only.

Please also read caution at the end of this document.



Revision Number	Date	Description
SAYEY897MCG0F0A_rev. A	Nov-20-2015	■ Initial Release/Updated for MP
SAYEY897MCG0F0A_rev. B	Sep-05-2016	■ Updated General Information
SAYEY897MCG0F0A_rev. C	Feb-28-2017	■ Updated General Information

- 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)

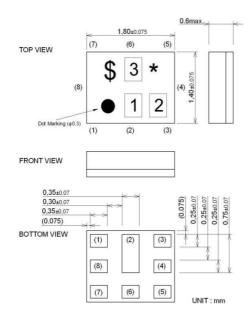
Minimum Resistance between the terminals : 10M ohm
 RoHS compliance : Yes
 ESD (ElectroStatic Discharge) sensitive device



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)

1:8

2:Q

3:A

Terminal Number

(6): Ant

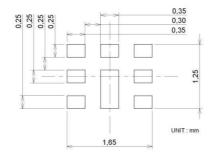
(3):TX

(1)(8):RX

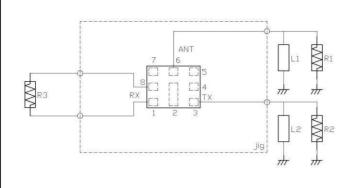
Others: GND

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

Land Pattern



Measurement Circuit (Top Thru View)



R1 : 50 ohm	L1 :7.5nH(Ideal inductor)
	:8.2nH(LQW15AN8N2)
	<reference></reference>
R2 : 50 ohm	L2 :30nH(Ideal inductor)
R3: 100 ohm	



Electrical Characteristic < TX→ANT. >

TX					racteri to +85 d		Unit	Note	
					min.	typ.*	max.		
Center Frequency						897.5		MHz	
Insertion Loss		to	912.5	MHz		1.6	2.5	dB _{INT}	Any 4.5MHz
D: 1 D : "		to	912.6	MHz		1.6	2.5	dB _{INT}	Any 3.84MHz
Ripple Deviation	880.	to	915.	MHz		0.7	1.6	dB	Any 5MHz
VSWR	880. 880.	to	915. 915.	MHz		1.6 1.5	2.0		Ant
Absolute Attenuation	10.	to	716.	MHz MHz	30	34	2.0	dB	Tx
Absolute Attenuation	716.	to to	710.	MHz	30	34		dB	
	728.	to	793.	MHz	30	34		dB	
	832.	to	862.	MHz	30	39		dB	B20 Tx
		to	957.5	MHz	40	53		dB _{INT}	Any 4.5MHz
		to	957.6	MHz	40	53		dB _{INT}	Any 3.84MHz
	1559.	to	1563.	MHz	40	46		dB	Compass
	1565.42		1573.37	MHz	40	46		dB	Wideband GPS, lower side lobe
	1573.37	to	1577.47	MHz	40	46		dB	Regular GPS, main lobe
	1577.47	to	1585.42	MHz	40	45		dB	Wideband GPS, upper side lobe
	1597.55	to	1605.89	MHz	40	46		dB	GLONASS
	1710.	to	1785.	MHz	30	42		dB	ВЗТх
	1760.	to	1840.	MHz	30	41		dB	2f
	1840.	to	1880.	MHz	30	40		dB	
	1920.	to	1980.	MHz	30	39		dB	B1 Tx
	2110.	to	2170.	MHz	27	36		dB	
	2400.	to	2500.	MHz	30	34		dB	2.4GHz ISM
	2434.	to	2494.	MHz	30	34		dB	
	2620.	to	2745.	MHz	28	33		dB	3f
	3520.	to	3660.	MHz	20	35		dB	4f
	4400. 4900.	to	4575. 5950.	MHz MHz	4.0 5.0	10.0 11.0		dB dB	5f
	6160.	to to	6405.	MHz	10	20		dВ	5GHz ISM, 6f 7f
	7040.	to to	7320.	MHz	10	19		dB	8f
	7920.	to	8235.	MHz	8.0	15.0		dB	9f
	8800.	to		MHz	5.0	11.0		dB	10f
	9680.		10065.	MHz	2.0	9.0		dB	11f
	10560.		10980.	MHz	1.0	6.0		dB	12f
	11440.		11895.	MHz	1.0	5.0		dB	13f
	12320.	to	12750.	MHz	2.0	6.0		dB	14f

^{*} Typical value at 25±2deg.C



Electrical Characteristic < ANT.→RX >

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	D.V				Cna	racteri	SUCS		Nata	
Ar	$NT. \rightarrow RX$					to +85 d		Unit	Note	
					min.		max.			
Center Frequency						942.5		MHz		
Insertion Loss	927.5	to	957.5	MHz		1.8	2.7	dB _{INT}	Any 4.5MHz	
	927.4	to	957.6	MHz		1.8	2.7	dB _{INT}	Any 3.84MHz	
Ripple Deviation	925.	to	960.	MHz		0.5	2.2	dB	Any 5MHz	
VSWR	925.	to	960.	MHz		1.7	2.0		Ant	
	925.	to	960.	MHz	4.0	1.8	2.0		Rx	
Amplitude Balance	925.	<u>to</u>	960.	MHz	-1.8	-1.2	1.8	dB		
Phase Balance	925.	to	960.	MHz	168	174	192	deg.		
Absolute Attenuation	0.2	to	880.	MHz	45	58		dB	D. T.	
	45. 835.	to	45. 870.	MHz	50 40	106 62		dB dB	Rx-Tx	
	882.5	to to	912.5	MHz MHz	45	63		dB _{INT}	2Tx-Rx	
	882.4	to	912.6	MHz	45	63		dB _{INT}	Any 4.5MHz Any 3.84MHz	
	902.5	to	910.	MHz	30	64		dB _{IN1}	(Rx+Tx)/2	
	980.	to	1045.	MHz	15	23		dB	(NX+1X)/2	
	1045.	to	6000.	MHz	35	39		dB		
	1427.	to	1448.	MHz	40	65		dB dB	B11Tx	
	1710.	to	1785.	MHz	40	60		dB	B3Tx	
	1805.	to	1920.	MHz	40	59		dB	Rx+Tx and 2x	
	1920.	to	1980.	MHz	40	59		dB	B1Tx	
	1980.	to	13025.	MHz	15	20		dB	BTIX	
	2400.	to	2500.	MHz	40	55		dB	2.4Ghz ISM	
	2500.	to	2570.	MHz	40	55		dB	B7Tx	
	2685.	to	2790.	MHz	40	54		dB	Rx+2Tx	
	2775.	to	2880.	MHz	40	53		dB	3f	
	2880.	to	3700.	MHz	35	48		dB		
	3700.	to	3840.	MHz	40	47		dB	4f	
	4625.	to	4800.	MHz	35	40		dB	5f	
	4900.	to	5950.	MHz	35	39		dB	5GHz ISM, 6f	
	6475.	to	6720.	MHz	20	38		dB	7f	
	7400.	to	7680.	MHz	15	32		dB	8f	
	8325.	to	8640.	MHz	15	26		dB	9f	
	9250.	to	9600.	MHz	15	23		dB	10f	
	10175.	to	10560.	MHz	15	21		dB	11f	
	11100.	to	11520.	MHz	15	22		dB	12f	
	12025.	to	12480.	MHz	15	23		dB	13f	
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^{*} Typical value at 25±2deg.C



Electrical Characteristic < TX→RX. >

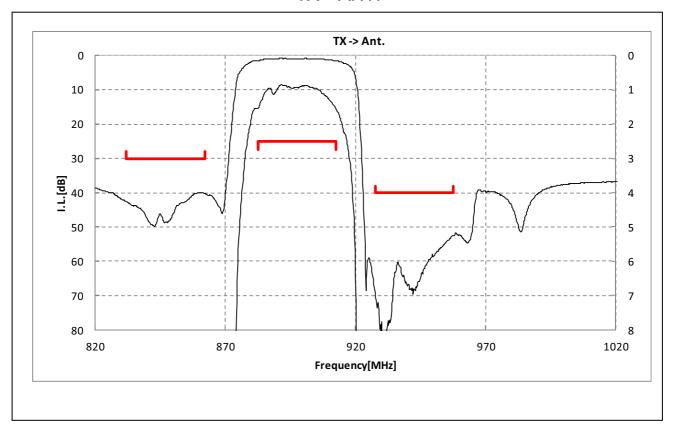
	$TX \rightarrow RX$		Cha	racteri	stics	Lloit	Note			
	IX → KX			(-20 to +85 deg.C min. typ.* ma			Unit	Note		
Isolation										
Differential Mode	882.5 to	912.5	MHz	53	59		dB _{INT}	Any 4.5MHz		
	882.4 to	912.6	MHz	53	60		dB _{INT}	Any 3.84MHz		
	927.5 to	957.5	MHz	50	57		dB _{INT}	-10 to +85deg.C Any 4.5MHz		
	927.4 to	957.6	MHz	50	57		dB _{INT}	-10 to +85deg.C Any 3.84MHz		
Common Mode	882.5 to	912.5	MHz	52	56		dB _{INT}	Any 4.5MHz		
	882.4 to	912.6	MHz	52	56		dB _{INT}	Any 3.84MHz		
				-	-					

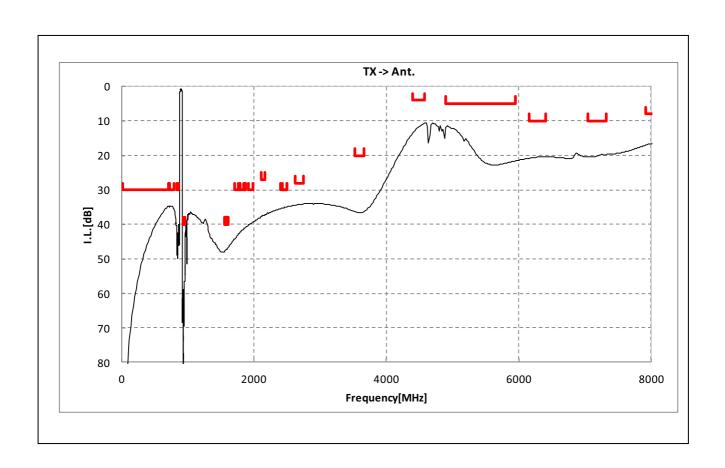
^{*} Typical value at 25±2deg.C



Electrical Characteristic

< TX→ANT. >

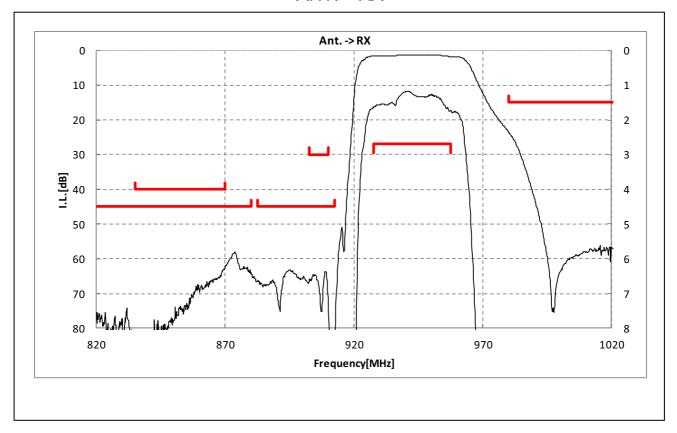


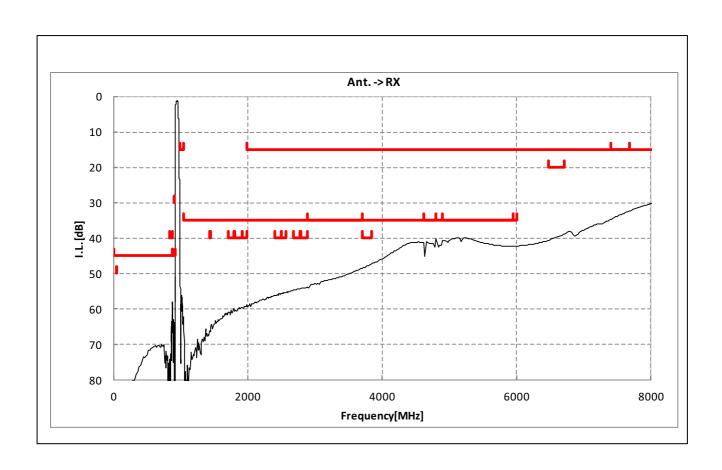




Electrical Characteristic

< ANT.→RX >

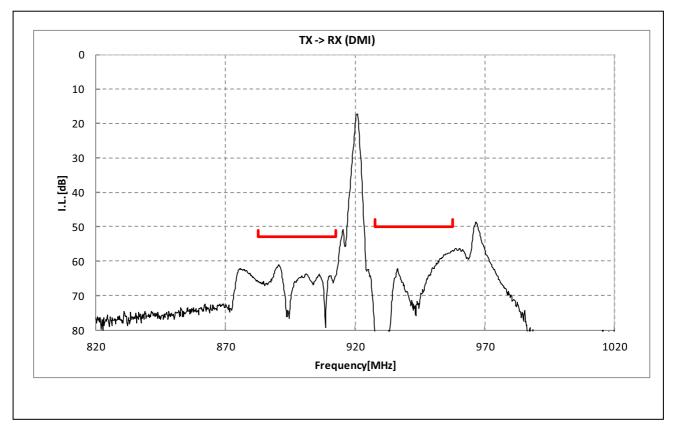


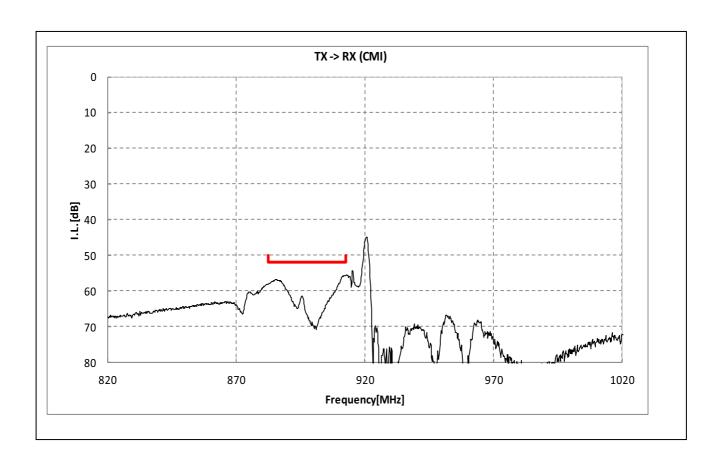




Electrical Characteristic

< TX→RX. >

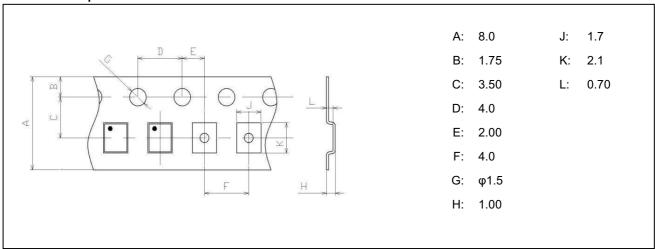




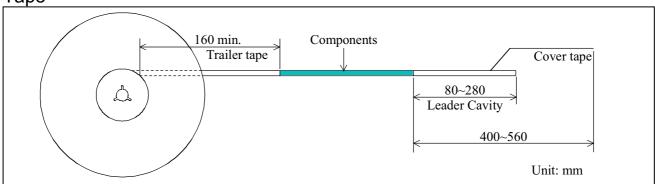


Dimensions of Tape & Reel unit: mm

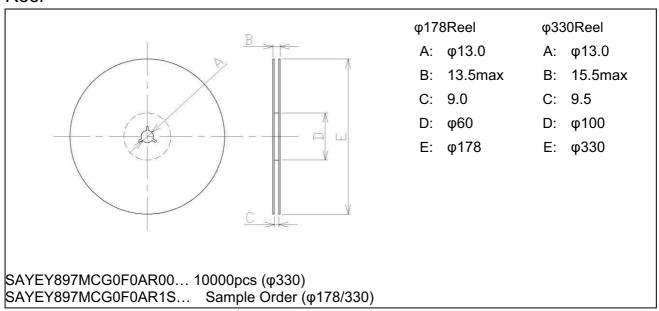
Carrier Tape



Tape



Reel





Marking Code

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2013	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2017 2021	Α	В	С	D	E	F	G	Н	J	K	L	М
2014	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2018 2022	N	Р	Q	R	S	T	U	V	W	Х	Υ	Z
2015	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2019 2023	а	b	ī	d	е	f	g	h	j	k	Q	m
2016	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
2020 2024	n	P	8	r	d	t	J	U	ω	æ	y	8

Table B: Date Code

date code	21st W	22nd	23rd	24th	25th a	26th b	27th 	28th d	29th e	30th	31st g
code	Ĺ	М	N	Р	Q	R	S	Т	U	V	
date	11th	12th	13th	14th	15th	16th	17th	18th	19th	20th	
code	Α	В	С	D	Е	F	G	Ι	J	K	
date	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	

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- Power plant control equipment Medical equipment.
- Transportation equipment (vehicles, trains, ships, elevator, etc.).
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Please do not use the product in molding condition.

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BD1722J50200AHF