LEAD-FREE

DATASHEET
-Preliminary-

Surface Acoustic Wave Filter

- **Application : LTE B3 / 5GNR n3 DPX**
- **Model : SFXG47RUB02**
- **Center Frequency : 1747.5 / 1842.5 [MHz]**

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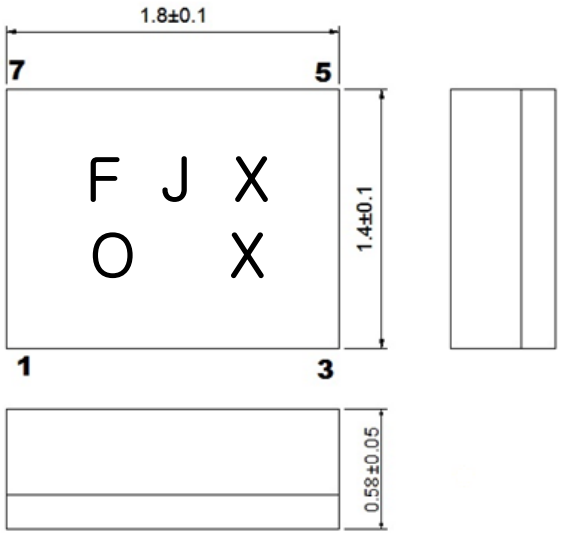
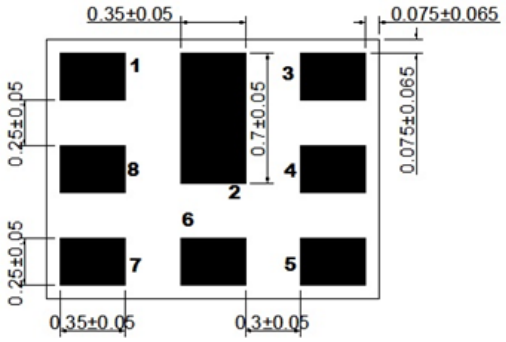
1. OUTLINE DRAWING & RECOMMENDED PCB

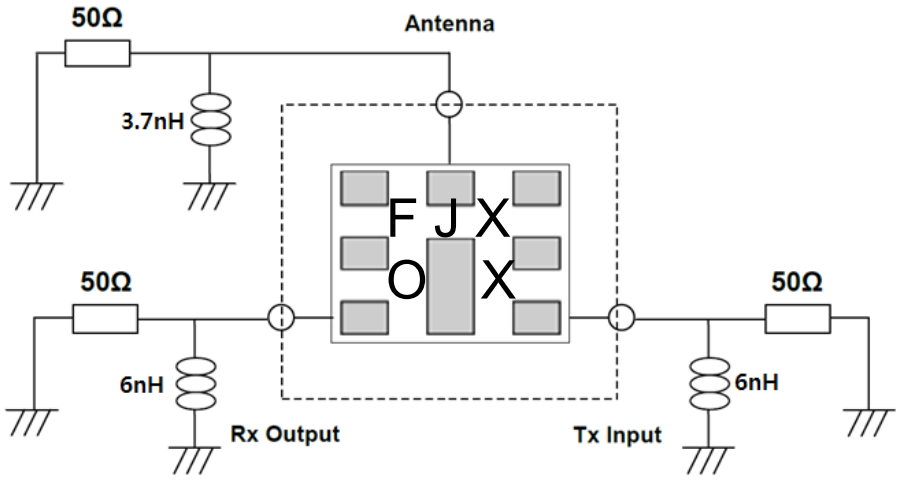
[Unit: mm]





No.	Function
1	Rx Output
3	Tx Input
6	Antenna
2, 4, 5, 7, 8	GND

2. TEST FIXTURE



< Top View >

3. PERFORMANCE

3-1. MAXIMUM RATINGS

CHARACTERISTICS	RATINGS	UNITS	NOTES
DC Permissive Voltage	5	V	
Input Power	30 (1)	dBm	50 ℃, 5000 h
	28.5 (2)	dBm	50 ℃, 5000 h
Operating Temperature Range	−20 ~ +85	℃	
Storage Temperature Range	−40 ~ +85	℃	

- Input Power : +30dBm 5000h +55deg.C (1)
  +28.5dBm 5000h +55deg.C (2)
  (1) applicable for W-CDMA, SC-FDMA, DFT-s-OFDM
  (2) applicable for CP-OFDM

3-2. ELECTRICAL CHARACTERISTICS

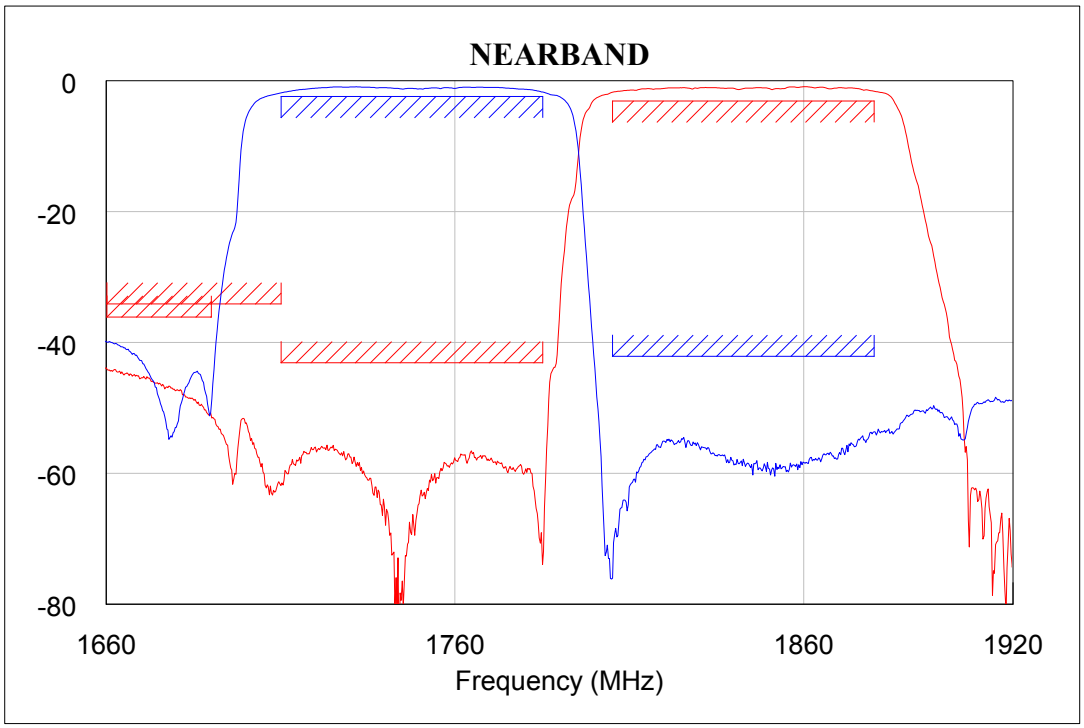
3-2-1. TABLE

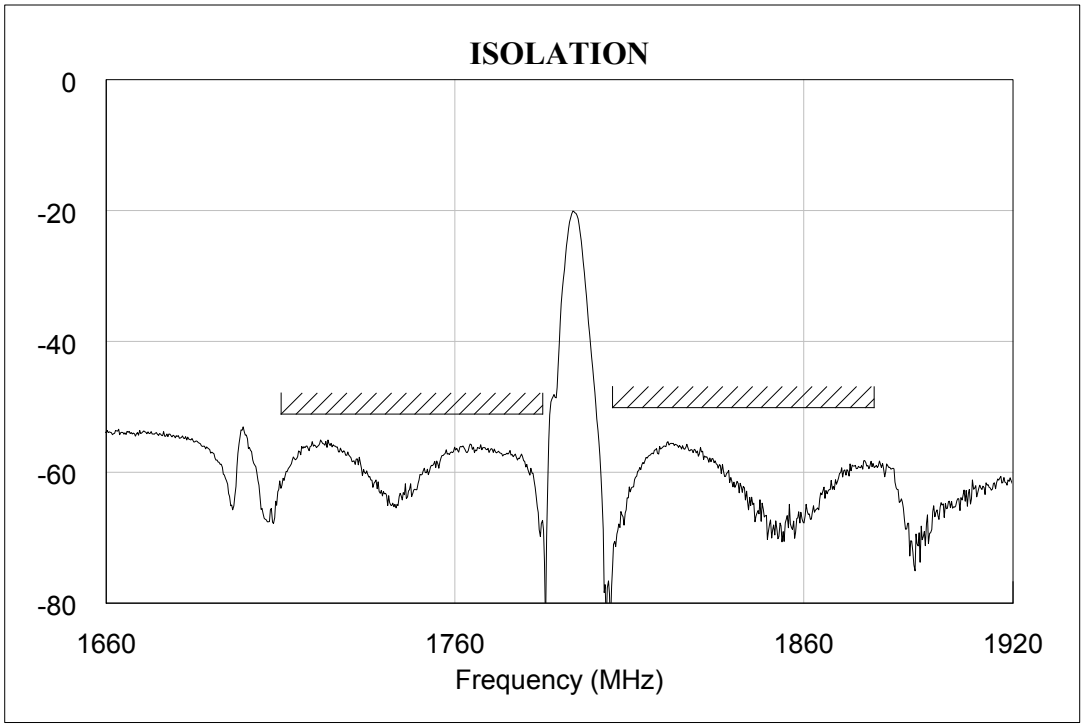
Ta = −20 ~ +85 deg
* PCB loss is de-embedded

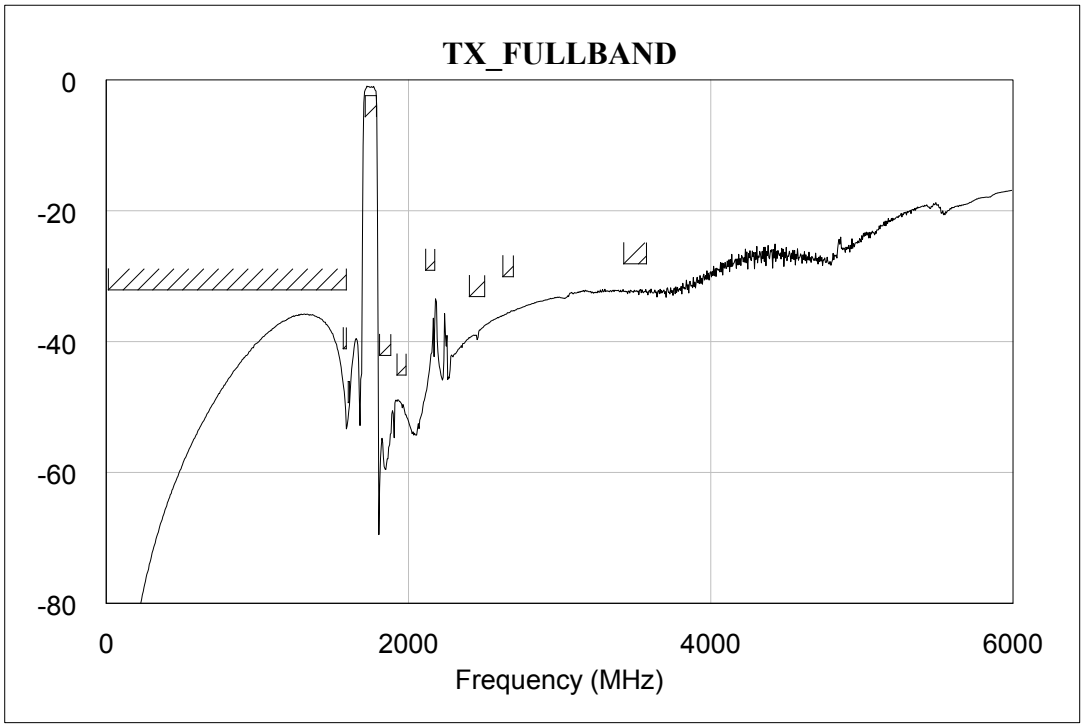
ITEM	CONDITION [MHz]	UNIT	RATING			NOTE
			Min.	Typ.(25℃)	Max	
TX -> ANTENNA						
Insertion Loss	1710 ~ 1785	dB	-	1.8	2.3	+23 to +27 deg
	1710 ~ 1785	dB	-	1.8	2.5	
Inband Ripple	1710 ~ 1785	dB	-	1.0	2.0	
Input VSWR	1710 ~ 1785	-	-	1.5	2.3	
Output VSWR	1710 ~ 1785	-	-	1.5	2.3	
Absolute attenuation	10 ~ 1585.42	dB	32	36	-	
	1565.42 ~ 1585.42	dB	41	45	-	
	1597.55 ~ 1605.89	dB	46	50	-	
	1805 ~ 1880	dB	42	53	-	
	1920 ~ 1980	dB	45	49	-	
	2110 ~ 2170	dB	29	34	-	
	2400 ~ 2500	dB	33	37	-	
	2620 ~ 2690	dB	30	34	-	
	3420 ~ 3570	dB	28	32	-	
Termination Impedance : Tx / ANTENNA			50Ω // 6.0nH, 50Ω // 3.7nH			

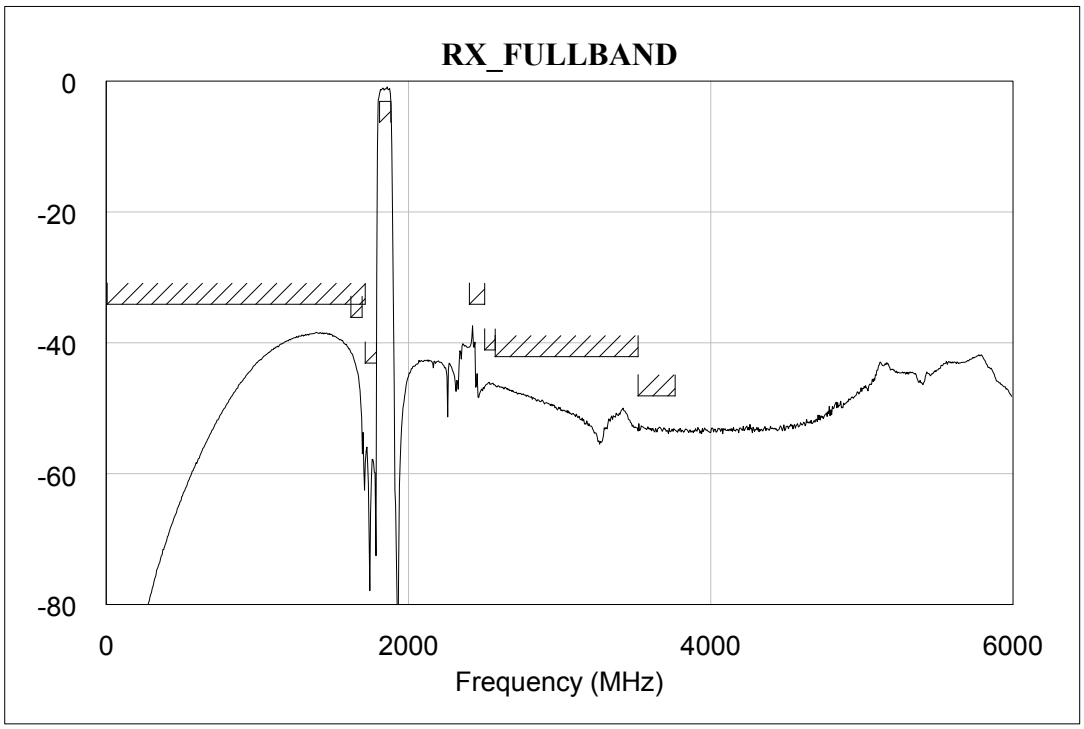
ANTENNA -> RX						
Insertion Loss	1805 ~ 1880	dB	-	1.8	3.0	+23 to +27deg
	1805 ~ 1880	dB	-	1.8	3.5	
Inband Ripple	1805 ~ 1880	dB	-	1.0	2.0	
Input VSWR	1805 ~ 1880	-	-	1.7	2.3	
Output VSWR	1805 ~ 1880	-	-	1.5	2.3	
Absolute attenuation	1 ~ 1710	dB	34	39	-	
	1615 ~ 1690	dB	36	41	-	
	1710 ~ 1785	dB	43	55	-	
	2400 ~ 2500	dB	34	38	-	
	2500 ~ 2570	dB	41	45	-	
	2570 ~ 3515	dB	42	46	-	
	3515 ~ 3760	dB	48	52	-	
Termination Impedance : ANTENNA / Rx			50Ω // 3.7nH, 50Ω // 6.0nH			
TX -> RX						
Isolation Between Rx and Tx	1710 ~ 1785	dB	51	55	-	
	1805 ~ 1880	dB	50	55	-	

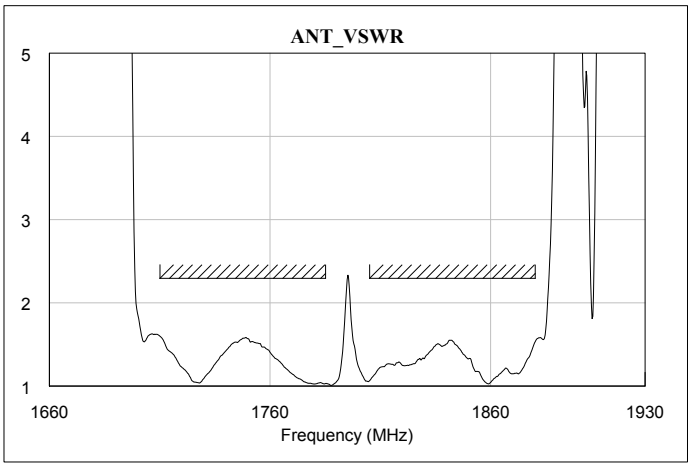
3-2-2. GRAPH

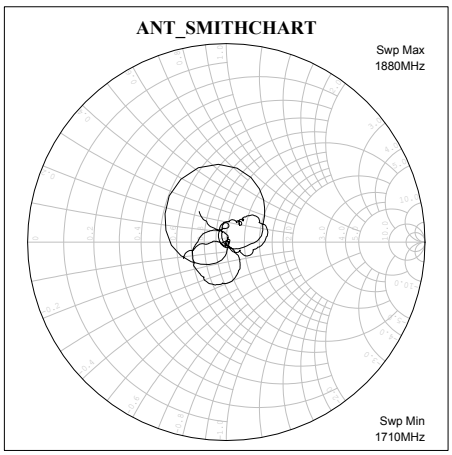


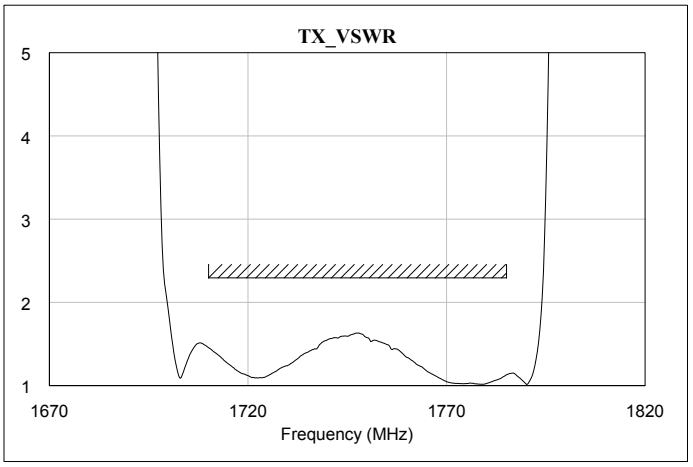


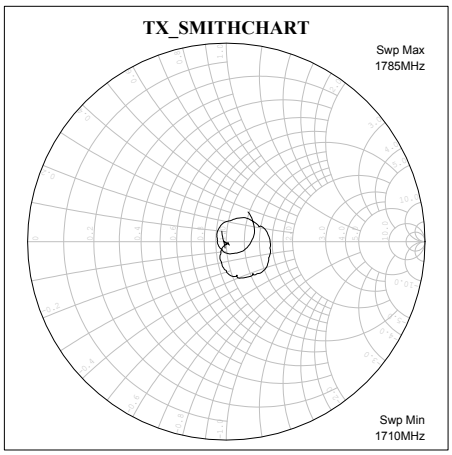


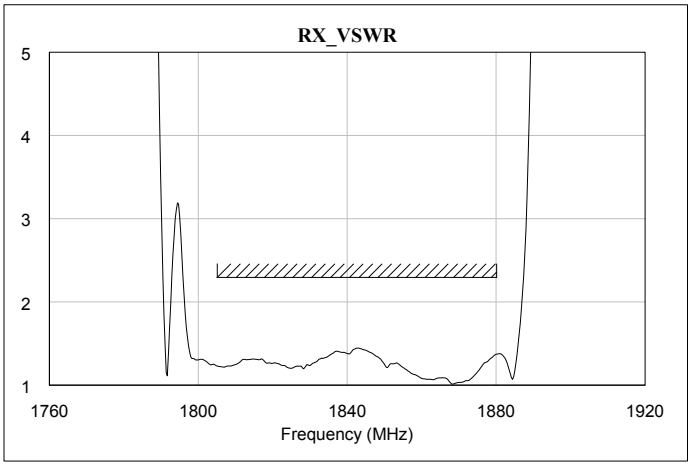


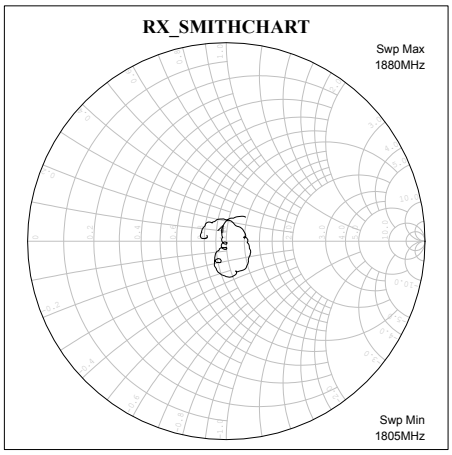








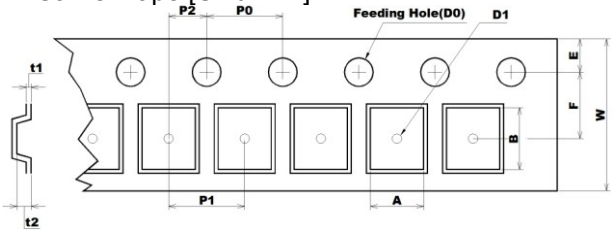




4. PACKING

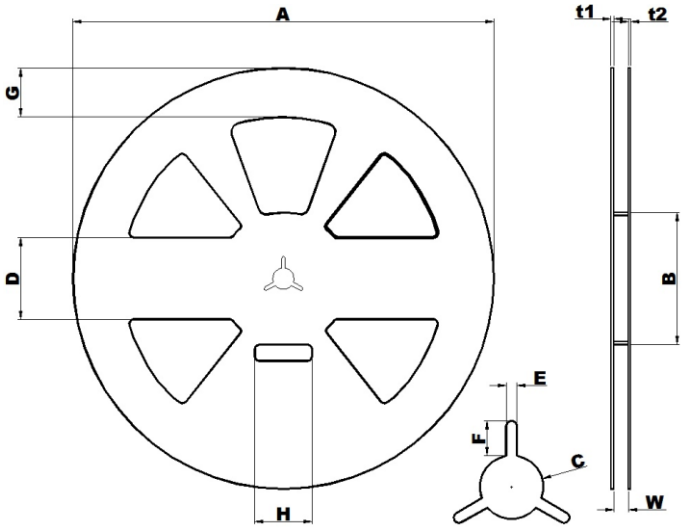
4-1. DIMENSIONS

- Carrier Tape [Unit: mm]



A	B	D0	D1
1.60 ± 0.05	2.00 ± 0.05	Ø1.55 ± 0.05	Ø1.00 MIN
E	**F**	**P0**	**P1**
1.75 +0.10 -0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10
P2	**t1**	**t2**	**W**
2.00 ± 0.05	0.25 +0.05 -0.05	0.80 +0.05 -0.05	8.00 +0.10 -0.10

- Reel [Unit: mm]



A	B	C	D
Ø258.0 +1.0 -0.5	Ø81.0 +1.0 -1.0	Ø13.0 +0.5 -0.5	50.0 +0.8 -0.8
E	**F**	**G**	**H**
2.2 +0.3 -0.3	7.0 +0.5 -0.5	30.0 +0.8 -0.8	35.0 +1.0 -1.0
t1	**t2**	**W**	
1.8 +0.5 -0.5	1.5 +0.5 -0.5	9.0 +1.0 -0.5	

- The product shall be packed properly not to be damaged during transportation and storage.

4-2. REELING QUANTITY

10 inch reel: 8,000 pcs/reel

4-3. TAPING STRUCTURE

The tape shall be wound around the reel in direction shown below.