



\* Pb Free Part



Customer Name	Standard	TAIYO YUDEN Mobile Technology Co., Ltd.	
System	Band 1 Duplexer	Date	Dec. 26, 2018
Part Number	D6DA2G140K2A4	Version 3.5fgE	Final

**Electrical Specification****Table-1**

Item		Condition (MHz)	Specification			Unit	Remarks	
			Min.	Typ.	Max.			
Tx to Ant	Insertion loss (*1)	1920.48 - 1979.52	-	1.8	2.2	dB		
	Ripple	1920.48 - 1979.52	-	0.6	1.2	dB		
	VSWR	Tx	1920.48 - 1979.52	-	1.8	2.2	-	
		Ant	1920.48 - 1979.52	-	1.5	2.0	-	
	Input Power	1920.48 - 1979.52	+29 dBm, CW, +50 °C, 10000h	-			-	
			+29 dBm, LTE 5 MHz 1RB, +50 °C, 10000h	-			-	
			+29.5 dBm, CW, +50 °C, 5000h	-			-	
			+29.5 dBm, LTE 5 MHz 1RB, +50 °C, 5000h	-			-	
			+30 dBm, CW, +50 °C, 2000h	-			-	
			+30 dBm, LTE 5 MHz 1RB, +50 °C, 2000h	-			-	
	Absolute attenuation	1559 - 1563	38	41	-	dB		
		1565 - 1606	38	41	-	dB		
		1805 - 1880	10	25	-	dB		
2110 - 2170		42	50	-	dB			
2400 - 2500		33	37	-	dB			
3840 - 3960		25	29	-	dB			



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Item	Condition (MHz)	Specification			Unit	Remarks	
		Min.	Typ.	Max.			
Ant to Rx	Insertion loss (*1)	2110.48 - 2169.52	-	1.8	2.2	dB	
	Ripple	2110.48 - 2169.52	-	0.6	1.2	dB	
	VSWR	Ant	2110.48 - 2169.52	-	1.6	2.0	-
		Rx	2110.48 - 2169.52	-	1.6	2.1	-
	Absolute attenuation	190	50	81	-	dB	
		1730 - 1790	40	46	-	dB	
		1920 - 1980	45	49	-	dB	
		1980 - 2015	15	49	-	dB	
		2015 - 2075	18	28	-	dB	
		2400 - 2500	35	40	-	dB	
4030 - 4150		35	44	-	dB		
Tx to Rx	Isolation	1920.48 - 1979.52	53	56	-	dB	
	Isolation(*2)	1920.48 - 1979.52	53	57	-	dB	
	Isolation	2110.48 - 2169.52	49	51	-	dB	
	Isolation(*2)	2110.48 - 2169.52	51	55	-	dB	
Terminating Impedance	Tx port	50			$\Omega$		
	Rx port	50			$\Omega$		
	Ant port	50//2.7nH			$\Omega$		
Operating Temperature		-20 to +85			$^{\circ}\text{C}$		
Maximum DC in all ports		-	-	5	VDC	Device only	
DC impedance to ground		100			M $\Omega$	Device only	
Device size (L max. x W max. x H max.)		1.8 x 1.4 x 0.5			mm		

(\*1) Specification of insertion loss excludes loss that comes from the test board.

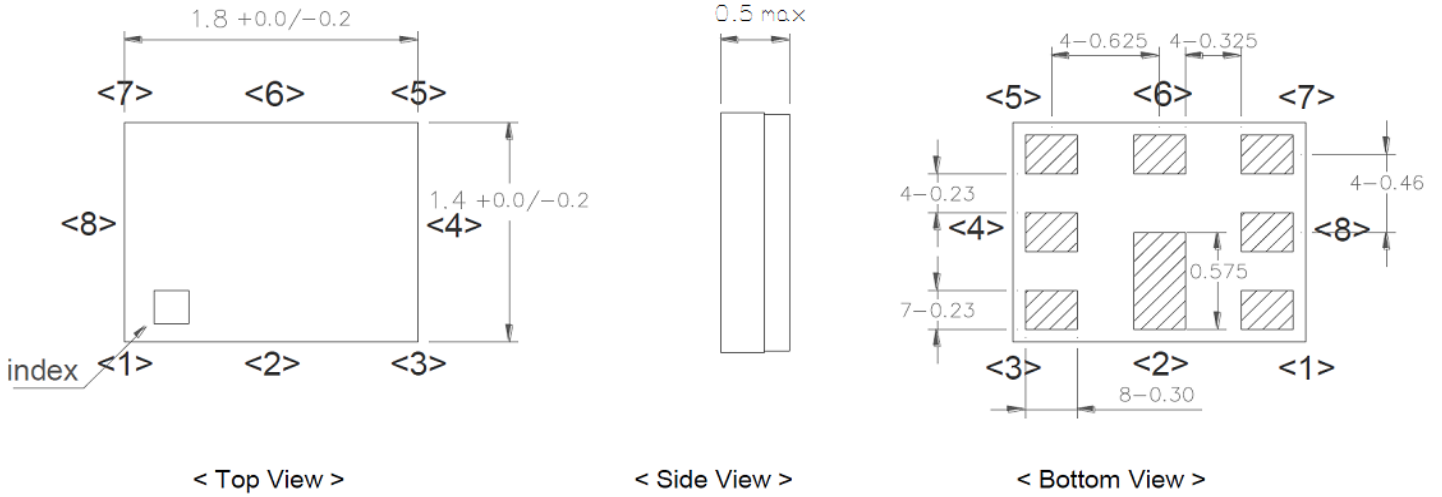
(\*2) Matching inductor (HKQ0603W3N0H-T)



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### Dimensions



Unit: mm

**Figure-1**

### Pin Configuration

**Table-2**

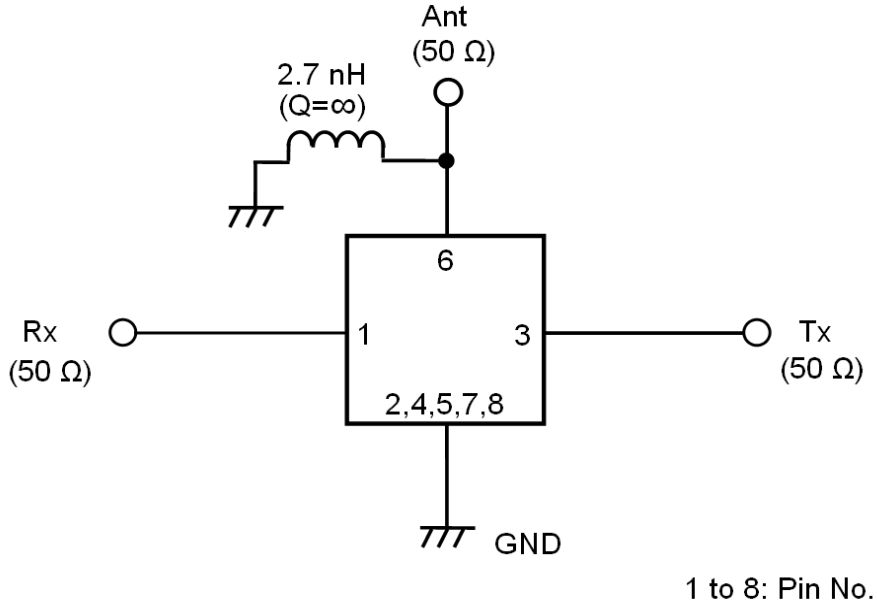
Pin No.	Symbol	Function
1	Rx	Receiver
2	GND	Ground
3	Tx	Transmitter
4	GND	Ground
5	GND	Ground
6	ANT	Antenna
7	GND	Ground
8	GND	Ground



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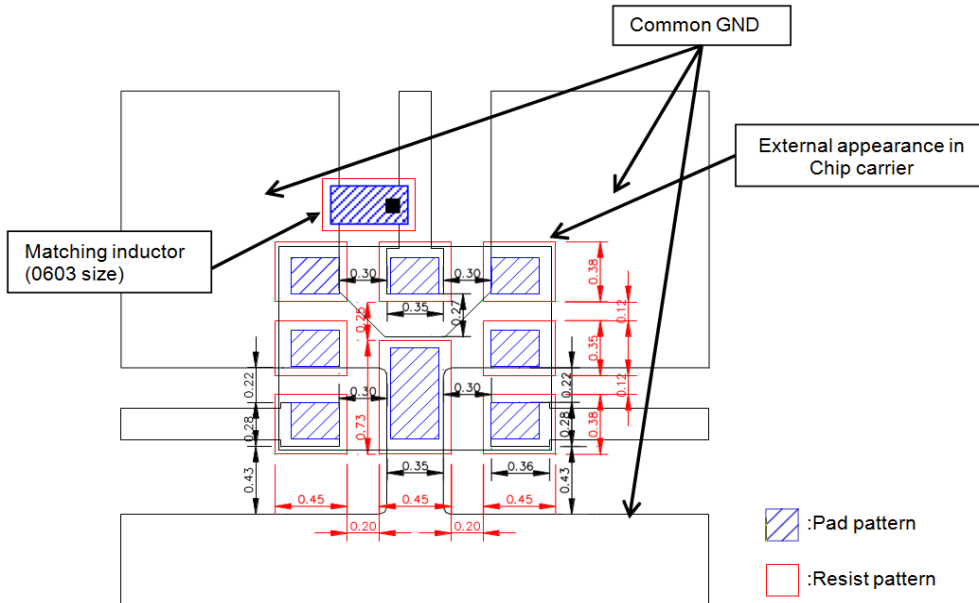
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**Evaluation Circuit**



**Figure-2**

**Recommended Foot Print Pattern**



**Figure-3**



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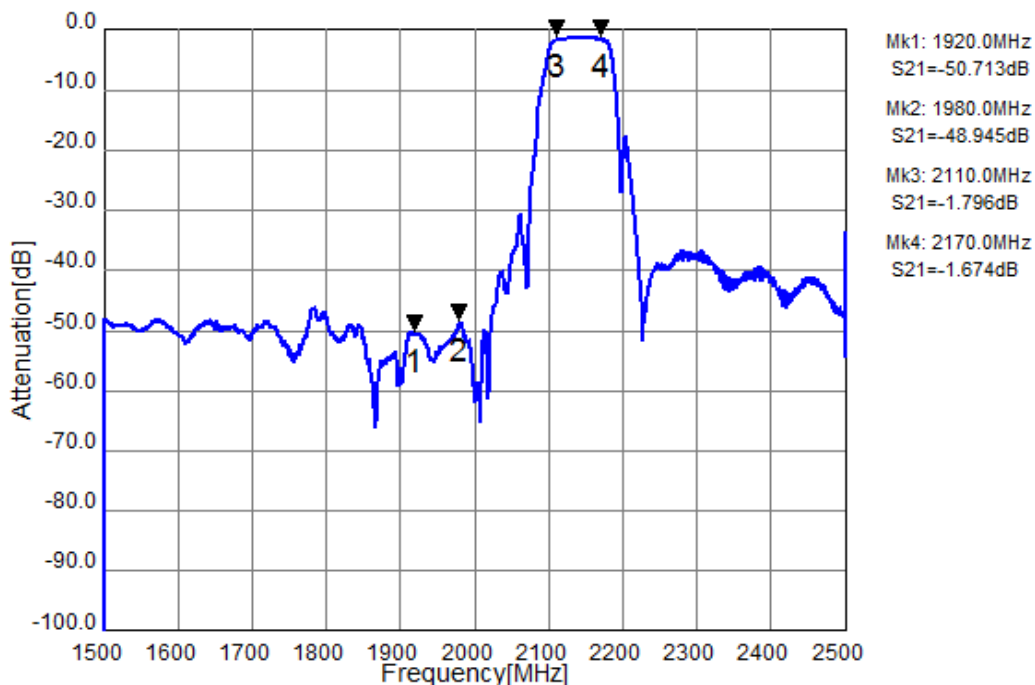
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### Electrical Characteristics

#### Tx to Ant



#### Ant to Rx



**Figure-4-1**

These data excludes loss that comes from the test board

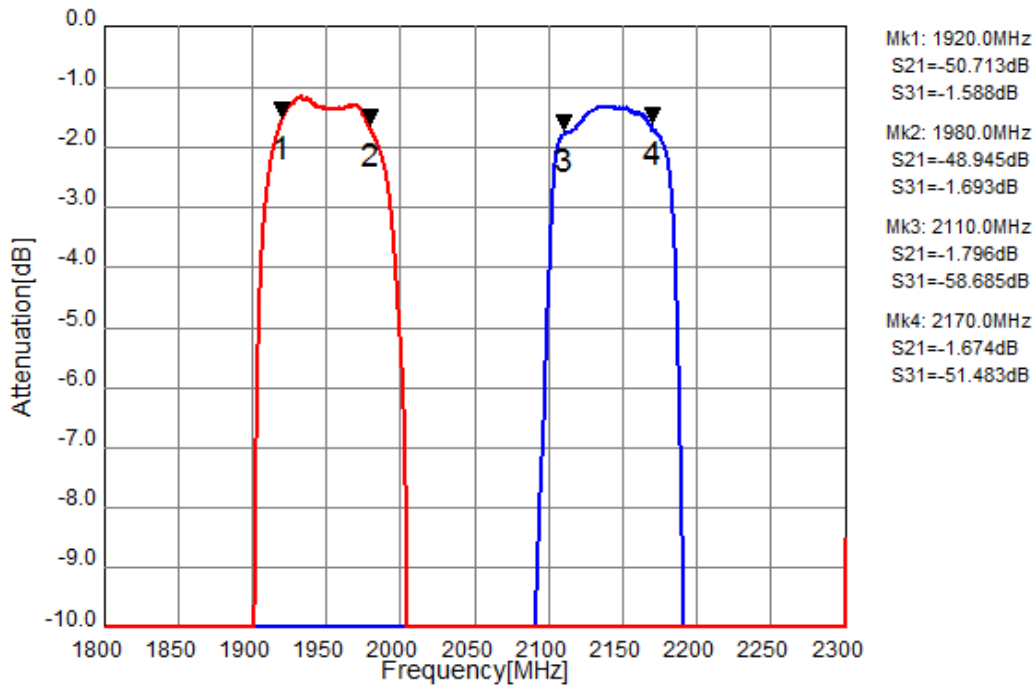




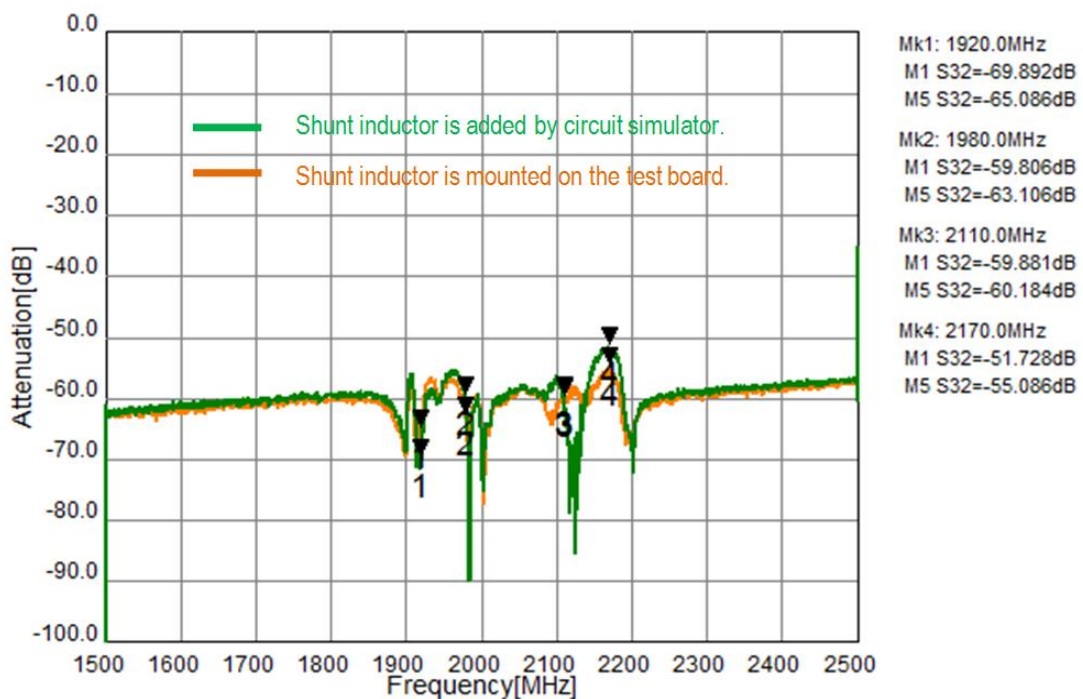
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### Tx to Ant, Ant to Rx



### Tx to Rx Isolation



**Figure-4-2**

These data excludes loss that comes from the test board

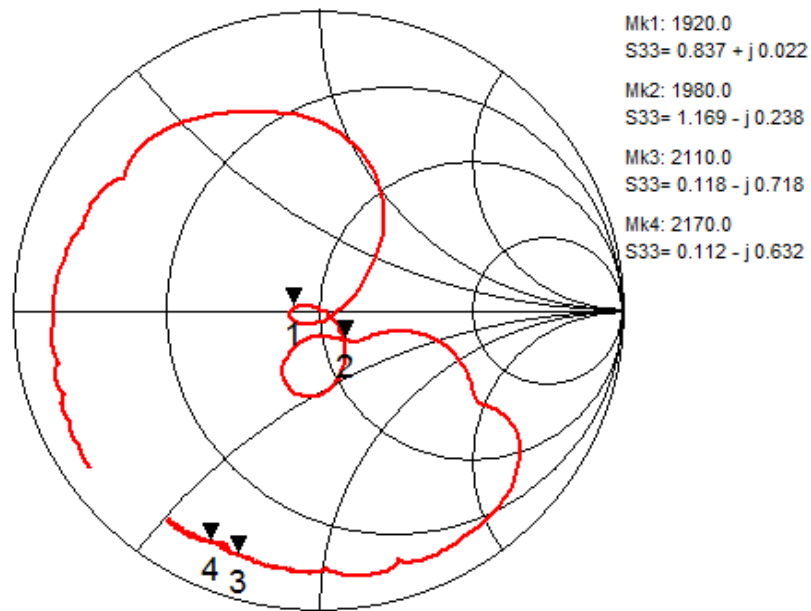
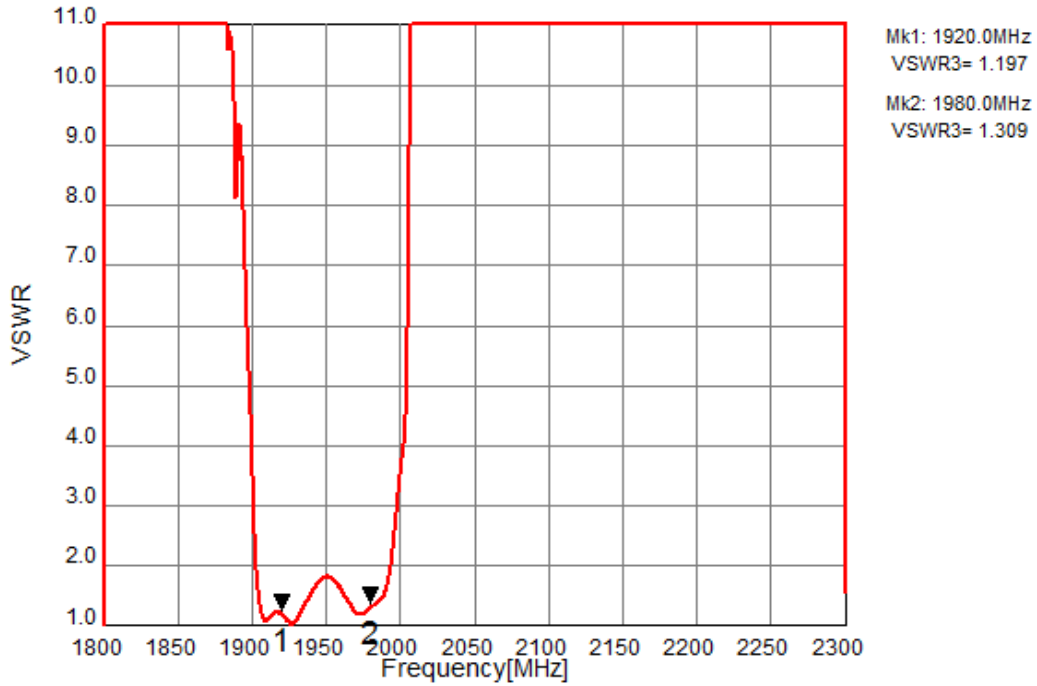


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### Tx Port



**Figure-4-3**



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### Rx Port

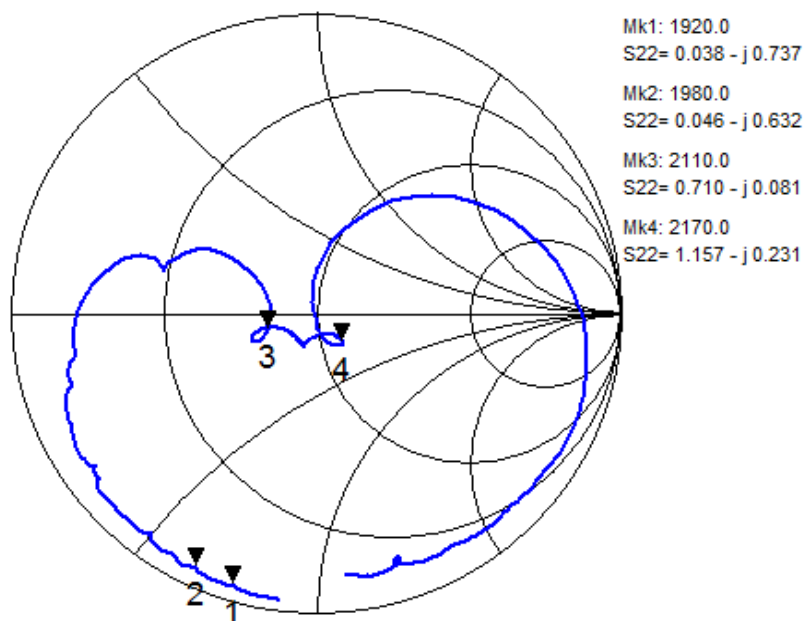
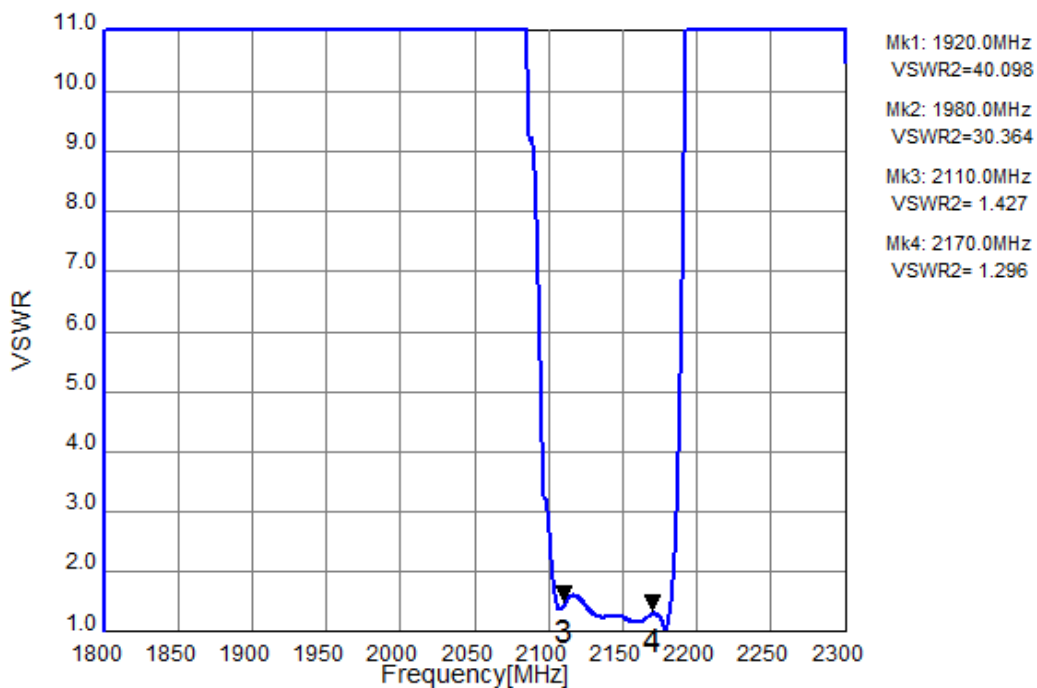


Figure-4-4





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### Ant Port

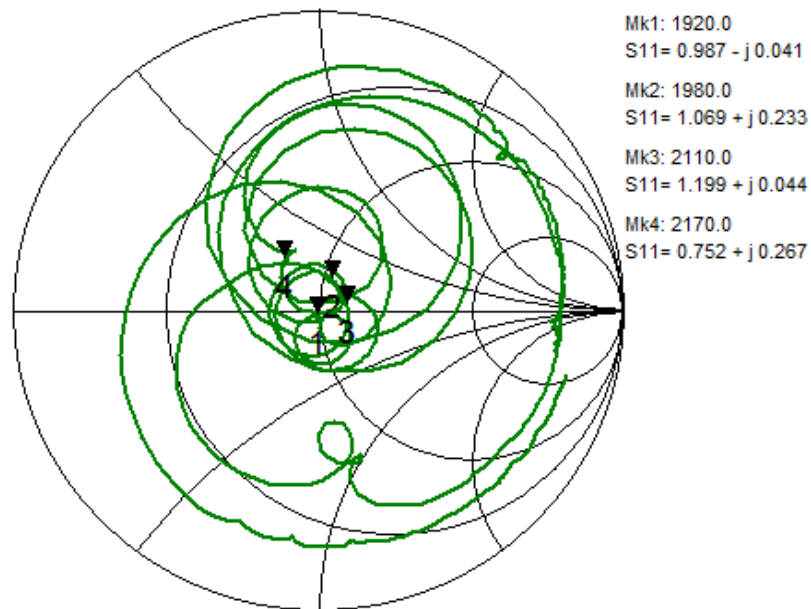
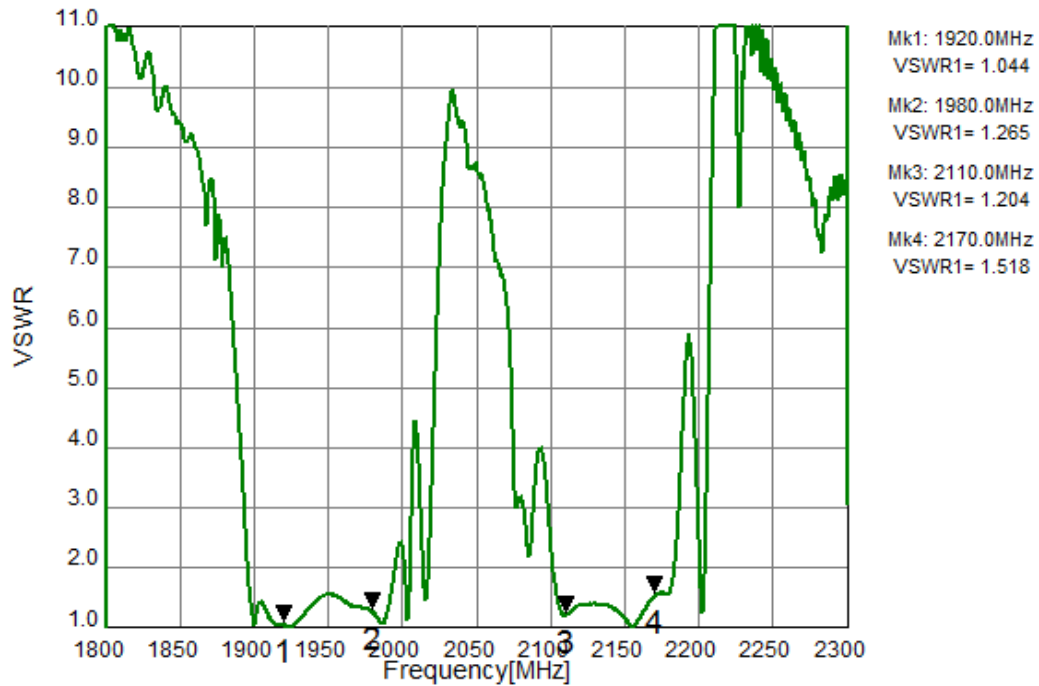


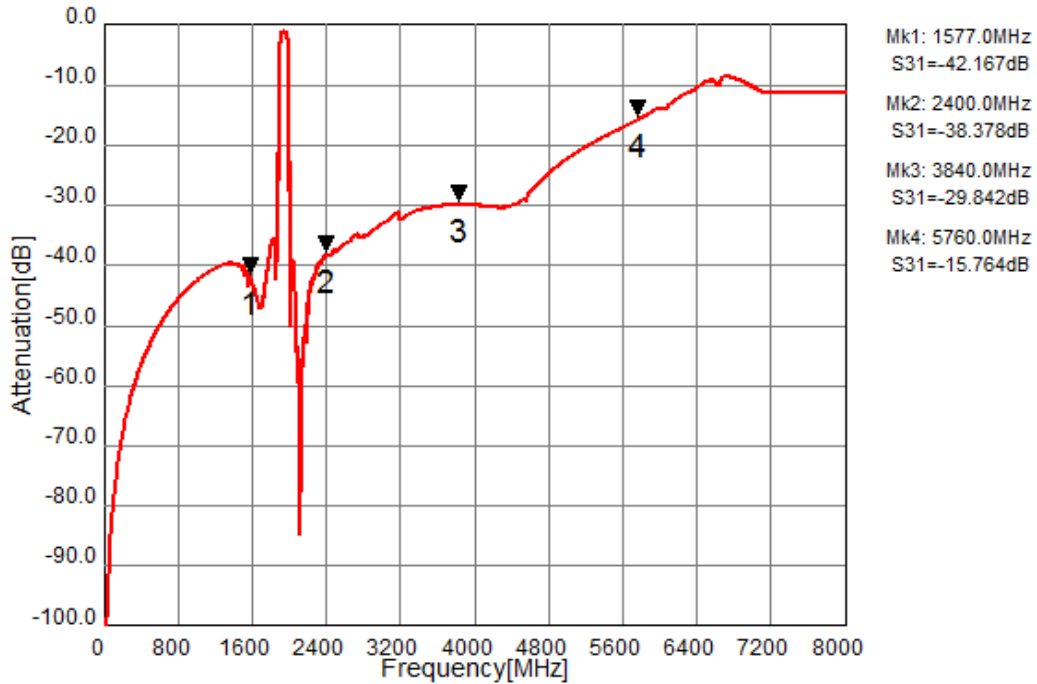
Figure-4-5



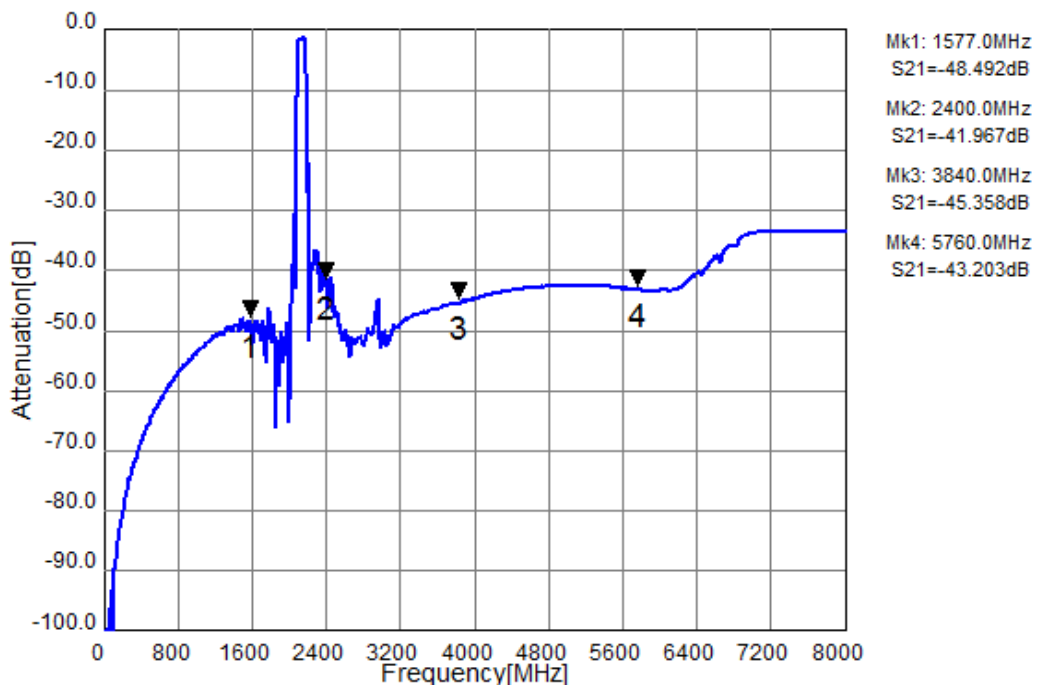
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### Tx to Ant(Wide span)



### Ant to Rx(Wide span)



**Figure-4-6**



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### Ordering Code

Standard Ordering Code	Packing	Reel size	Status
D6DA2G140K2A4-Y	Tape & Reel	15,000 pcs.	MP

Option Ordering Code	Packing	Reel size	Status
D6DA2G140K2A4-Z	Tape & Reel	3,000 pcs.	MP
D6DA2G140K2A4-ZA	Tape & Reel	less than 3,000 pcs.	MP
D6DA2G140K2A4-YA	Tape & Reel	less than 15,000 pcs.	MP
D6DA2G140K2A4-Q	Bulk	few pcs.	MP

\*Minimum order quantity (MOQ) is assigned for each inquiry, Please contact to Sales Representatives.

\*MP : Mass Production

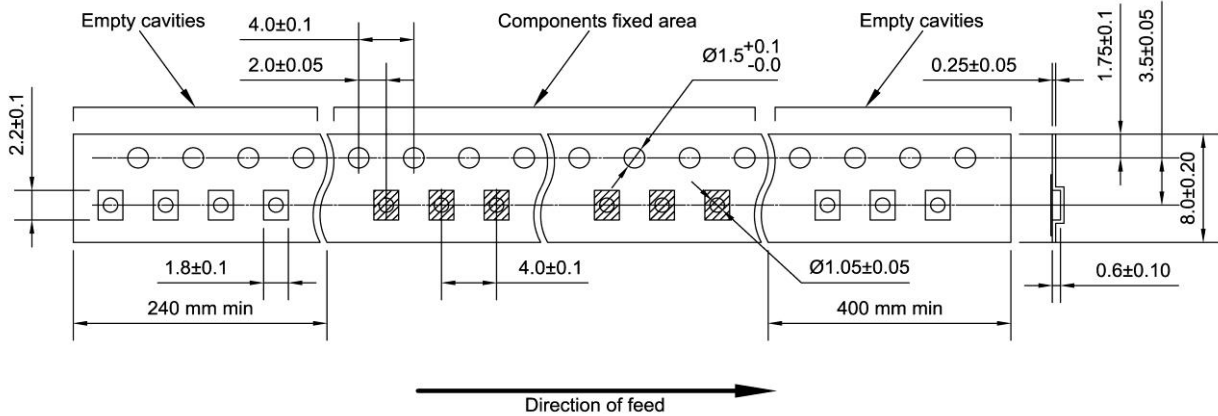


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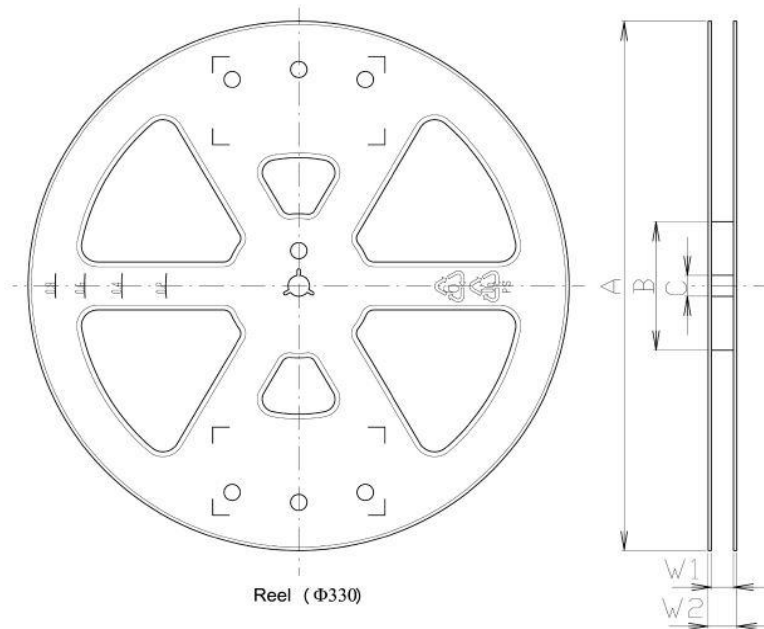
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## Tape and Reel Information

### Dimensions of Tape (Standard)



### Dimensions of Reel



Order	Code	Quantity (pcs./reel)	A	B	C	W1	W2	Tape Pitch
Standard	Y	15,000	φ330	φ100	φ13 ±0.2	9.4 ±1.0	13.4 ±1.0	4.0 ±0.1
Option	Z	3,000	φ180	φ60	φ13 ±0.2	9 +1.0/-0.0	11.4 ±1.0	4.0 ±0.1

Unit:mm



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MSL1

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### Notice

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Please do not incorporate our products into any equipment requiring high levels of safety and/or reliability (e.g., aerospace equipment, aviation equipment, medical equipment classified as Class IV by IMDRF, nuclear control equipment, undersea equipment, military equipment).  
When our products are used even for high safety and/or reliability-required devices or circuits of general electronic equipment, it is strongly recommended to perform a thorough safety evaluation prior to use of our products and to install a protection circuit as necessary.  
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