

SAW Duplexer

Band 8

- Unbalanced
- Low insertion attenuation and low passband ripple
- High isolation between Tx and Rx
- RoHS compatible

P/N: **SPSD008U01A**

Date: Feb. 18, 2019

Version: 1.0

Sappland Microelectronics

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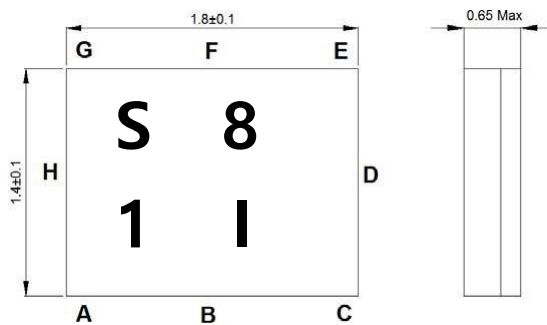
Fax: +86-571-81113812

www.sappland.com

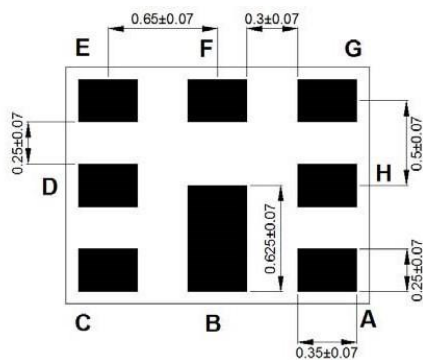
Revision Number	Date	Description
[Series]_v1.0	Feb-18-2019	Initial Release

- Operating temperature : -20 to +85 deg.C
- Storage temperature : -40 to +85 deg.C
- Input Power : +29 dBm 5000h 50 deg.C
- D.C. Volatage between the terminals : 3V (25+/-2 deg.C)

Package Dimensions (PKG Size: 1.8×1.4×0.65mm)

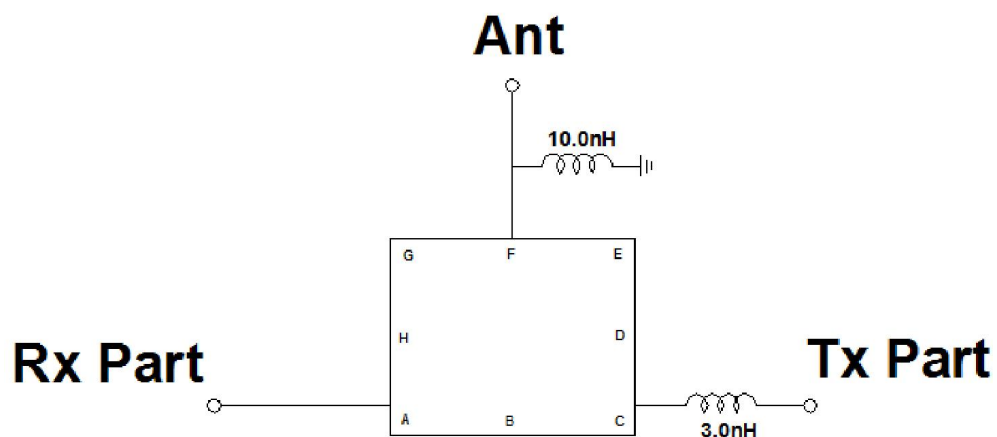


Marking Descriptions	
S	SAPPLAND
8	BAND
1	Type
I	Date



Pin Description	
B D E G H	GROUND
F	ANT
C	Tx (897.5MHz)
A	Rx (942.5MHz)

Testing Environment



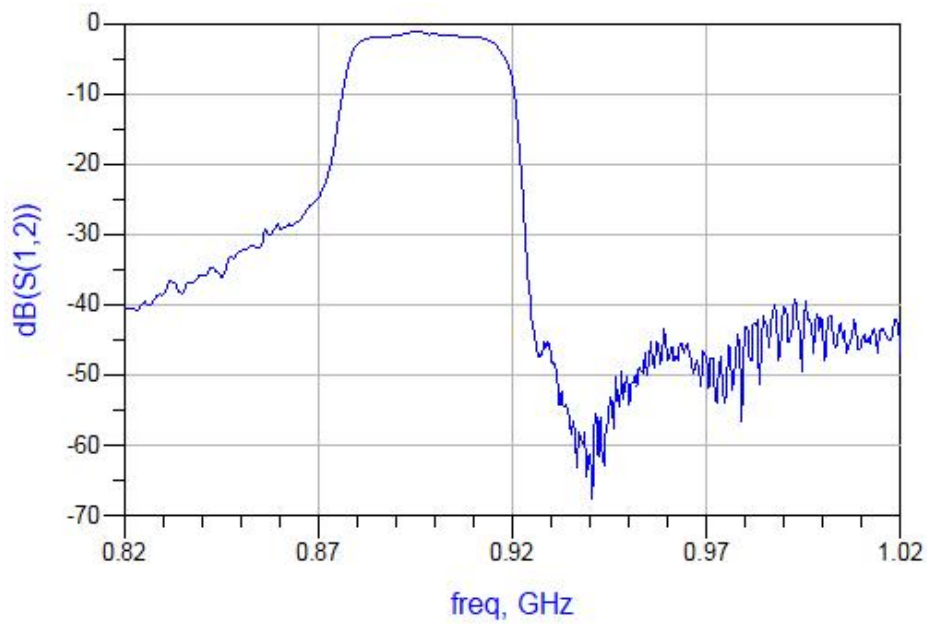
Electrical Characteristic

Item			Condition			Characteristic			Unit
						Min.	Typ.*	Max.	
Tx to ANT	fc		————				897.5		MHz
	Insertion loss		880.48	...	914.52		2.6	3.5	dB
			882.4	...	912.6		2.2	2.8	dB
	Amplitude ripple		880.0	...	915.0		1.6	2.7	dB _{p-p}
	VSWR	Tx	880.00	...	915.00		1.7	2.3	
		ANT	880.00	...	915.00		1.7	2.2	
	Absolute attenuation		927.4	...	957.6	42	48		dB
			1573.3	...	1605.89	35	38		dB
			1710.0	...	1785.0	30	36		dB
			1920.0	...	1980.0	30	33		dB
			2110.0	...	2170.0	28	32		dB
			2400.0	...	2500.0	26	30		dB
			2620.0	...	2745.0	25	30		dB
			4900.0	...	5950.0	5	19		dB
ANT to Rx	fc		————				942.5		MHz
	Insertion loss		925.48	...	959.52		2.5	3.4	dB
			927.4	...	957.6		2.1	2.6	dB
	Amplitude ripple		925.0	...	960.0		1.6	2.5	dB _{p-p}
	VSWR	Rx	925.0	...	960.0		1.7	2.2	
		ANT	925.0	...	960.0		1.6	2.2	
	Absolute attenuation		882.4	...	912.6	45	53		dB
			1710.0	...	1785.0	35	40		dB
			1805.0	...	1920.0	35	40		dB
			1920.0	...	1980.0	35	40		dB
			2400.0	...	2500.0	35	41		dB
			2500.0	...	2570.0	36	41		dB
			4900.0	...	5950.0	15	22		dB
Tx to Rx	Isolation		882.4	...	912.6	50	55		dB
			927.5	...	957.5	50	53		dB

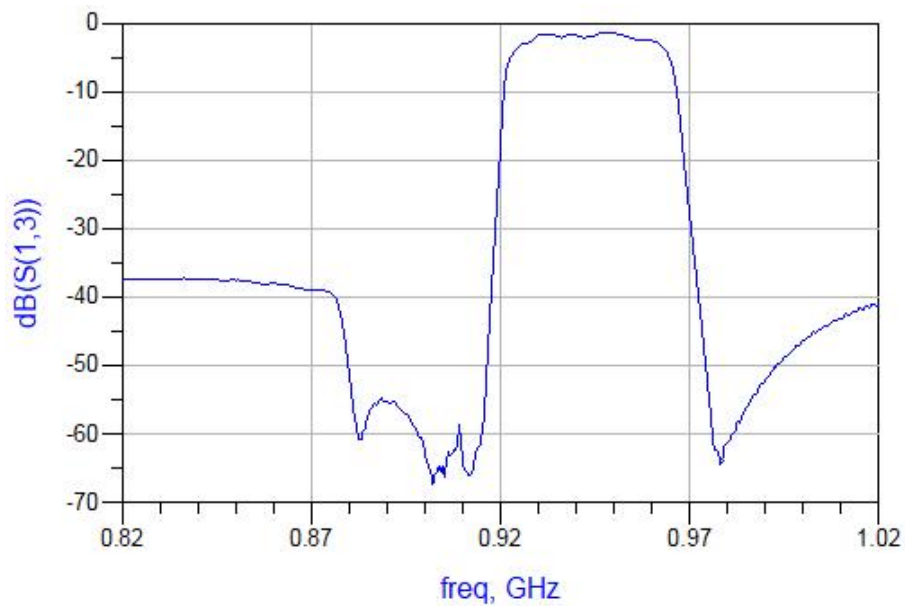
*: Typical value at 25±2deg.C

Frequency response

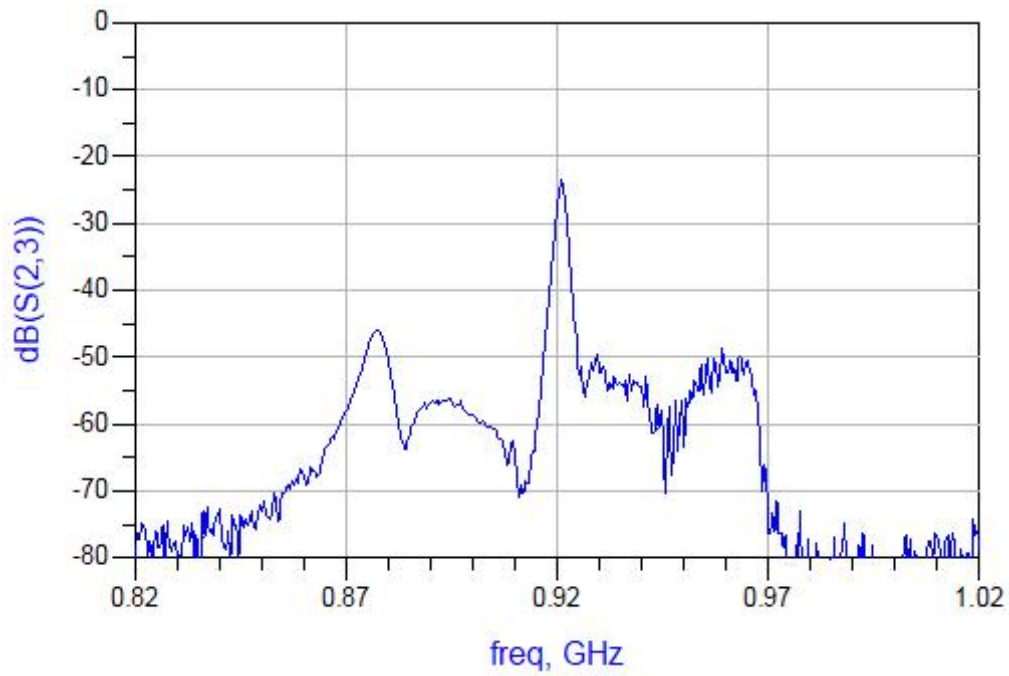
Tx- ANT



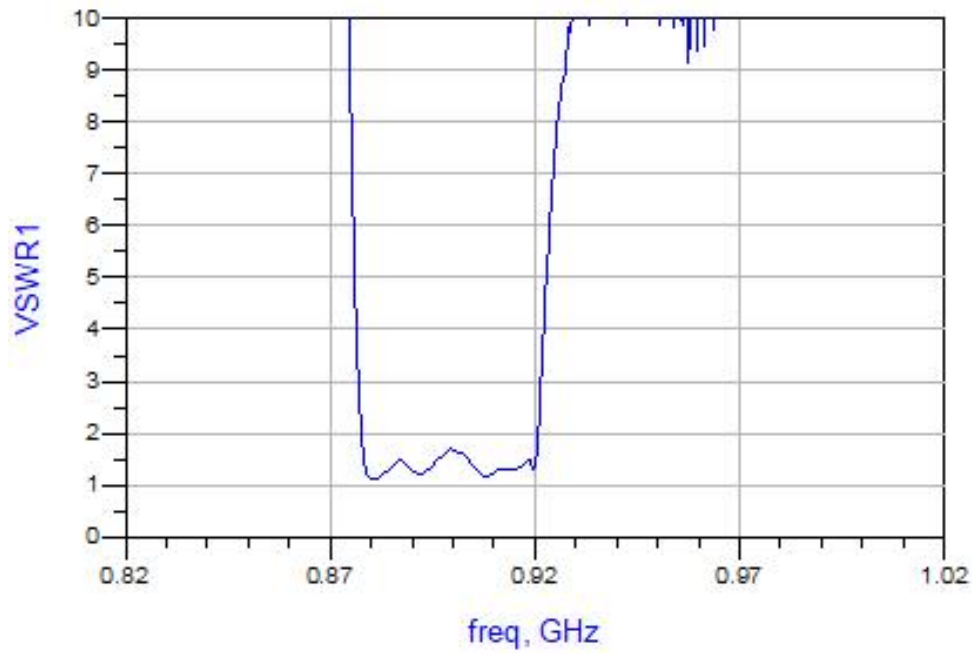
ANT-RX

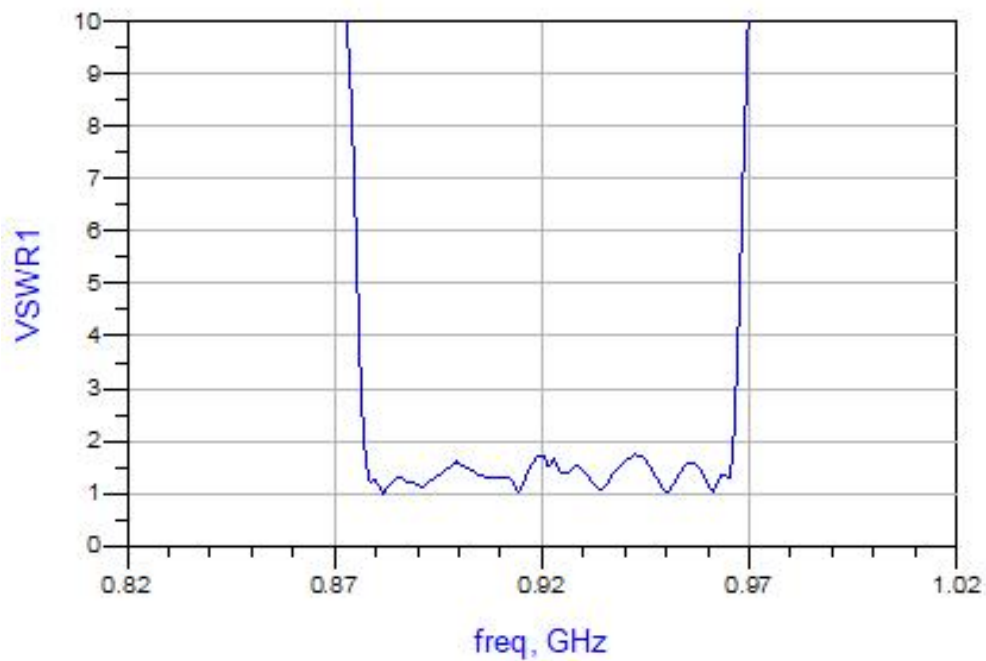
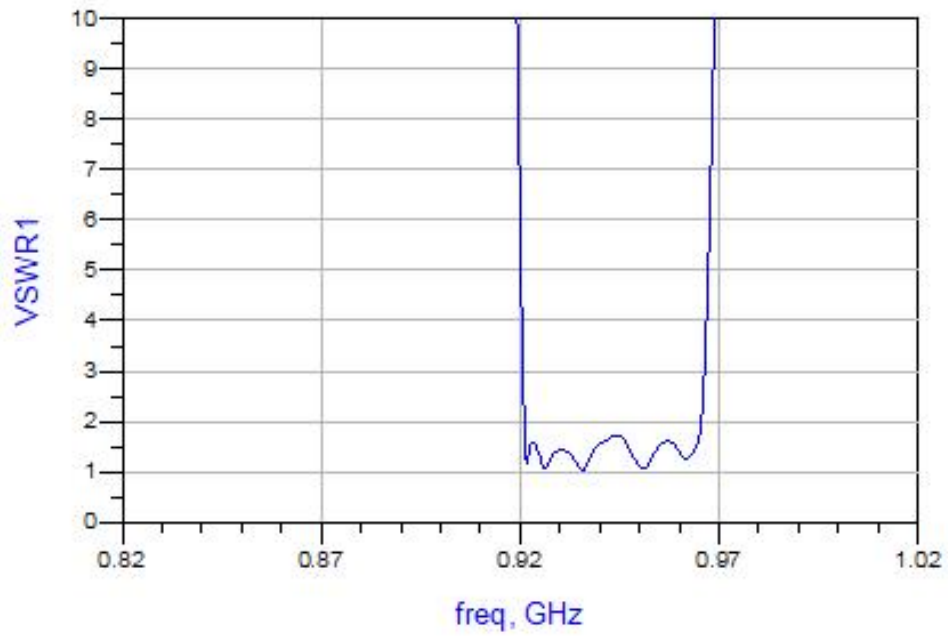


TX- RX isolation

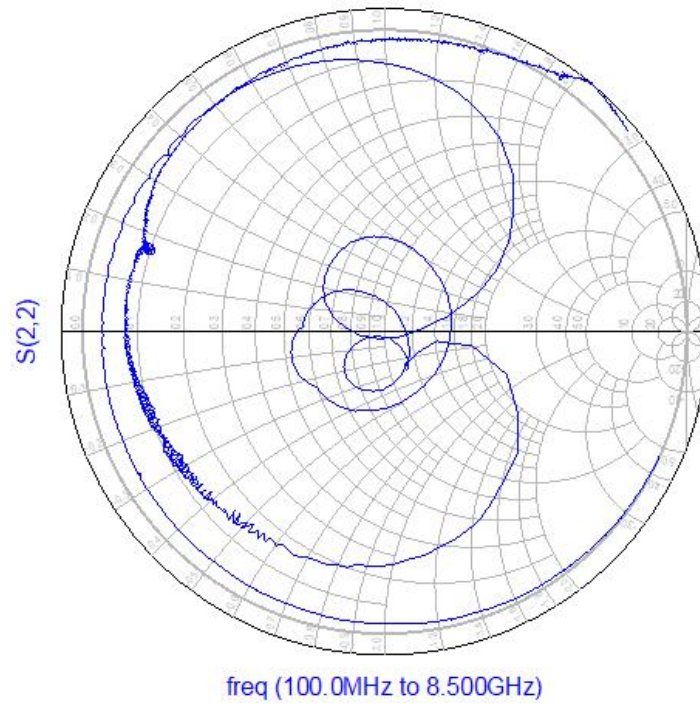


VSWRs at TX, RX and Antenna

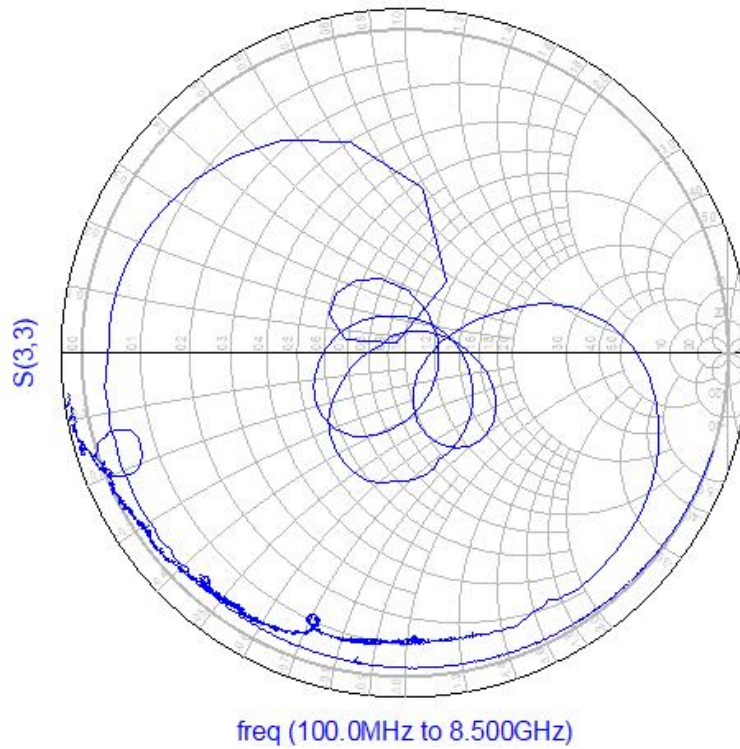




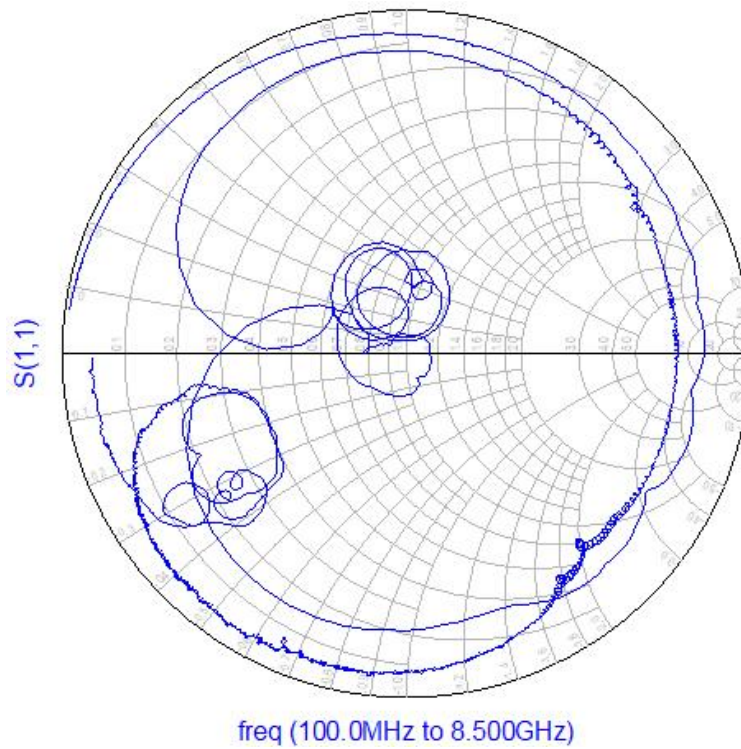
Smith Chart(Tx Port)



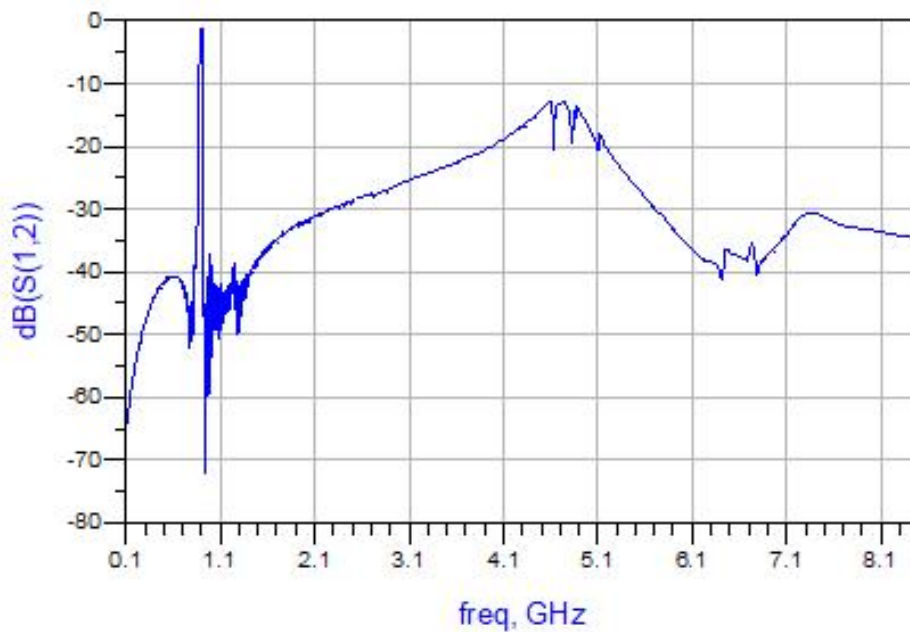
Smith Chart(Rx Port)



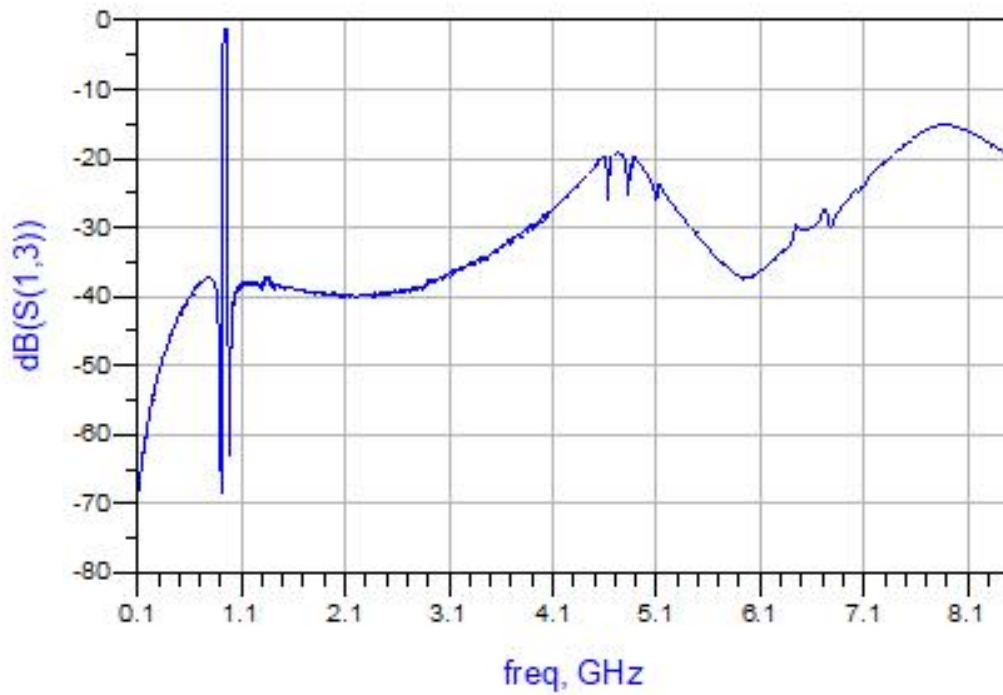
Smith Chart(Ant Port)



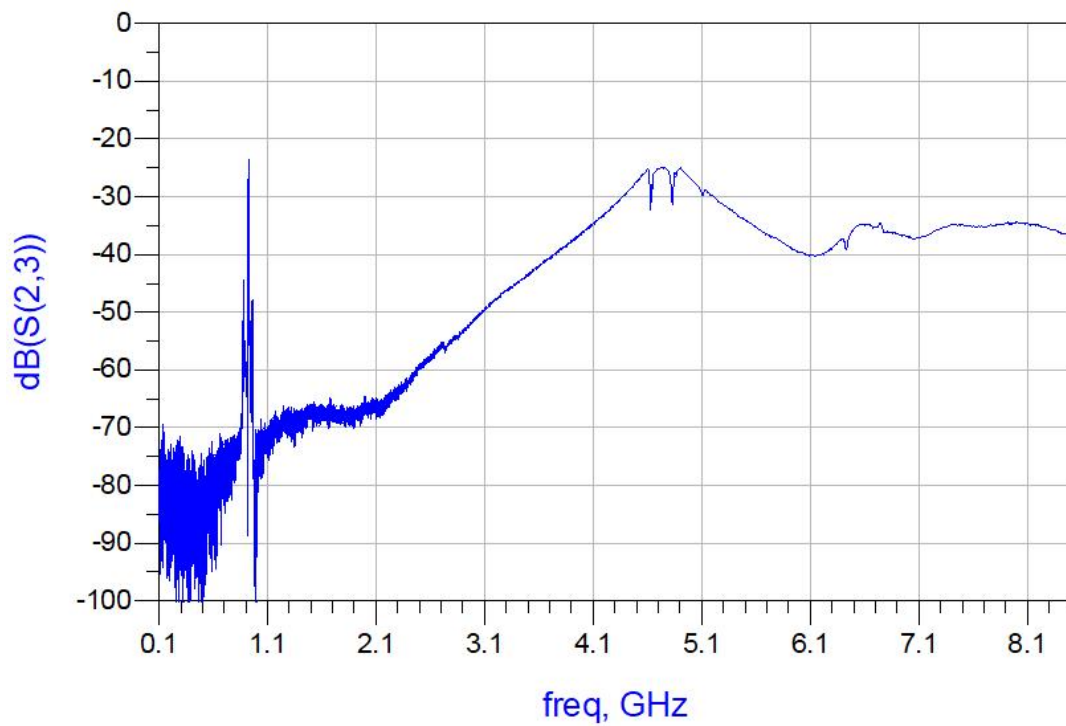
Wide Span



TX



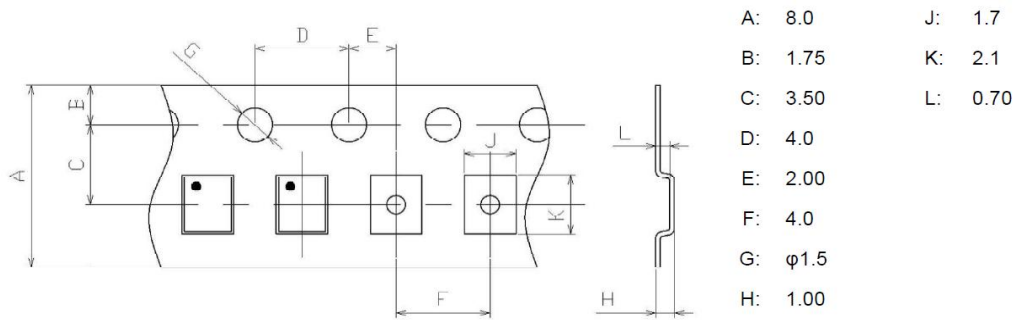
RX



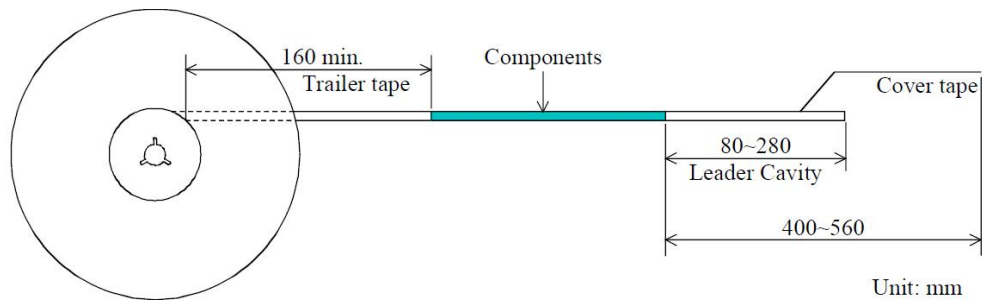
ISO

Tape and Reel

Carrier Tape



Tape



Reel

