



Electrical Specifications:

Tx → Ant		Specifications (+25°C)			
Parameters Description	Condition (MHz)	Unit	Minimum	Typical	Maximum
Insertion Loss	1850.5-1909.5	dB	-	2.5	3.0
Return Loss of Tx Port	1850.5-1909.5	dB	9	11	-
Return Loss of Ant Port	1850.5-1909.5	dB	9	11	-
Attenuation in Rx Band	1930.5-1989.5	dB	45	49	-
Attenuation in Cell Band	862.0-894.0	dB	30	40	-
Attenuation in GPS Rx Band	1570.0-1580.0	dB	35	46	-
Attenuation in Bluetooth Band	2400.0-2500.0	dB	23	46	-
Attenuation in 2 nd Harmonic	3700.0-3820.0	dB	23	28	-
Attenuation in 3 rd Harmonic	5550.0-5730.0	dB	7	10	-

Ant → Rx		Specifications (+25°C)			
Parameters Description	Condition (MHz)	Unit	Minimum	Typical	Maximum
Insertion Loss	1930.5-1989.5	dB	-	2.6	3.0
Return Loss of Rx Port	1930.5-1989.5	dB	5	6.5	-
Return Loss of Ant Port	1930.5-1989.5	dB	5	6.5	-
Attenuation in Tx Band	1850.5-1909.5	dB	50	54	-
Attenuation in Cell Band	817.0-849.0	dB	35	43	-
Amplitude Balance ($ S_{31}/S_{41} $)	1930.5-1989.5	dB	-3.0	-0.4/2.0	+3.0
Phase Balance $\phi(S_{31})-\phi(S_{41})+180^\circ$	1930.5-1989.5	Deg	-10	-3.0/+8.5	+10

Tx → Rx		Specifications (+25°C)			
Parameters Description	Condition (MHz)	Unit	Minimum	Typical	Maximum
Isolation in Rx Band	1930.5-1989.5	dB	50	56	-
Isolation in Tx Band	1850.5-1909.5	dB	55	59	-



ANATECH ELECTRONICS INC
RF & Microwave Filters & Products

1880-1960 MHz Saw Duplexer

Part Number: AM1880-1960SD372



Tx → Ant		Specifications (-30 to +85°C)			
Parameters Description	Condition (MHz)	Unit	Minimum	Typical	Maximum
Insertion Loss	1850.5-1909.5	dB	-	2.5	3.5
Return Loss of Tx Port	1850.5-1909.5	dB	9	11	-
Return Loss of Ant Port	1850.5-1909.5	dB	9	11	-
Attenuation in Rx Band	1930.5-1989.5	dB	45	49	-
Attenuation in Cell Band	862.0-894.0	dB	30	40	-
Attenuation in GPS Rx Band	1570.0-1580.0	dB	35	46	-
Attenuation in Bluetooth Band	2400.0-2500.0	dB	23	27	-
Attenuation in 2 nd Harmonic	3700.0-3820.0	dB	23	28	-
Attenuation in 3 rd Harmonic	5550.0-5730.0	dB	8	10	-

Ant → Rx		Specifications (-30 to +85°C)			
Parameters Description	Condition (MHz)	Unit	Minimum	Typical	Maximum
Insertion Loss	1930.5-1989.5	dB	-	2.6	3.5
Return Loss of Rx Port	1930.5-1989.5	dB	5	6.5	-
Return Loss of Ant Port	1930.5-1989.5	dB	5	6.5	-
Attenuation in Tx Band	1850.5-1909.5	dB	50	54	-
Attenuation in Cell Band	817.0-849.0	dB	35	43	-
Amplitude Balance ($ S_{31}/S_{41} $)	1930.5-1989.5	dB	-5.0	-0.4/2.0	+5.0
Phase Balance $\phi(S_{31})-\phi(S_{41})+180^\circ$	1930.5-1989.5	Deg	-15	-3.0/+8.5	+15

Tx → Rx		Specifications (-30 to +85°C)			
Parameters Description	Condition (MHz)	Unit	Minimum	Typical	Maximum
Isolation in Rx Band	1930.5-1989.5	dB	50	56	-
Isolation in Tx Band	1850.5-1909.5	dB	55	59	-



ANATECH ELECTRONICS INC
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1880-1960 MHz Saw Duplexer

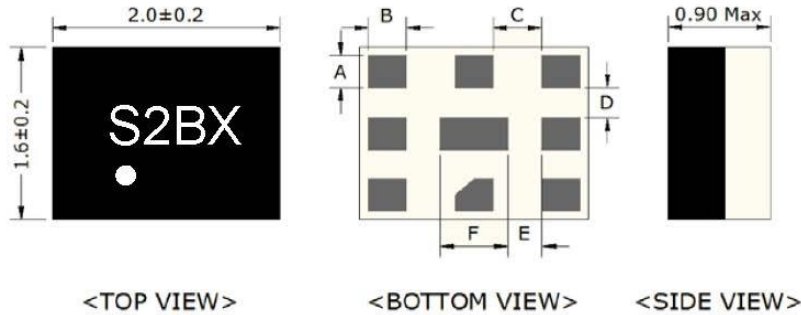
Part Number: AM1880-1960SD372



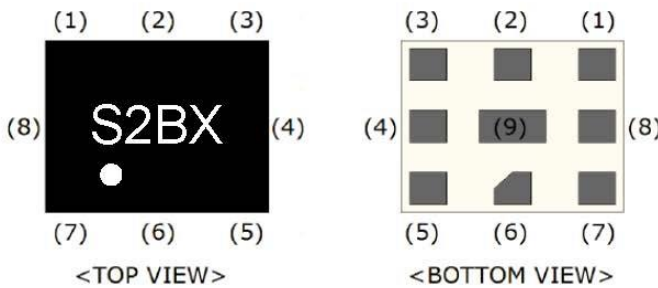
Tx → Ant	Specifications (-30 to +85°C)				
	Parameters Description	Unit	Minimum	Typical	Maximum
Operation Temperature Range	°C	-30	-		+85
Storage Temperature Range	°C	-40	-		+85
Maximum DC Voltage	V			0	
Input Power Level	W			2.0	
Antenna Impedance (Single Ended)	Ω			50	
Tx Impedance (Single Ended)	Ω			50	
Rx Impedance (Balanced)	Ω			100	
Package Size	mm			2.0 x 1.6 x 0.9	



Outline Drawing:



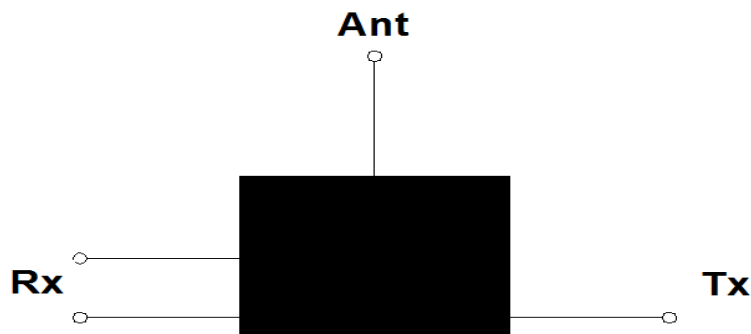
A	B	C	D	E	F	Thickness
0.30 ± 0.1	0.33 ± 0.1	0.43 ± 0.1	0.275 ± 0.1	0.295 ± 0.1	0.60 ± 0.1	0.90 MAX



Pin Description	
(1),(3),(4),(6),(9)	Ground
(2)	Antenna
(5)	Tx
(7)	Rx - Balanced
(8)	Rx + Balanced

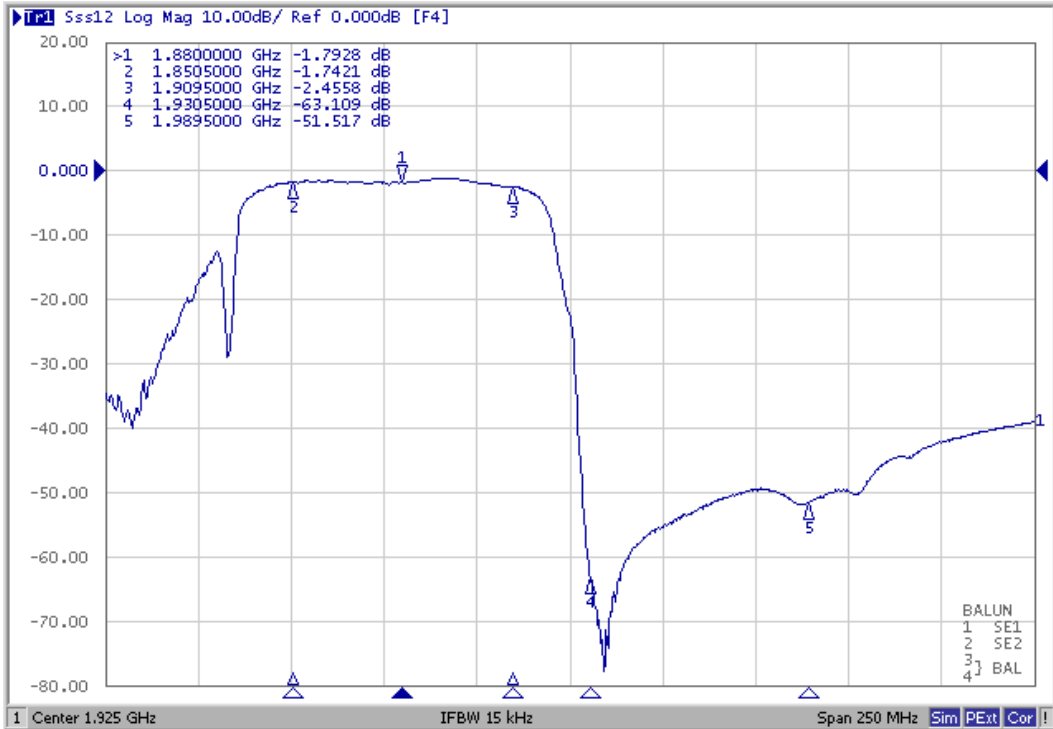
Marking Descriptions	
S	Duplexer
2	Band2 Application
B	Balanced Type
X	Date Code (Year)

Testing Environment:

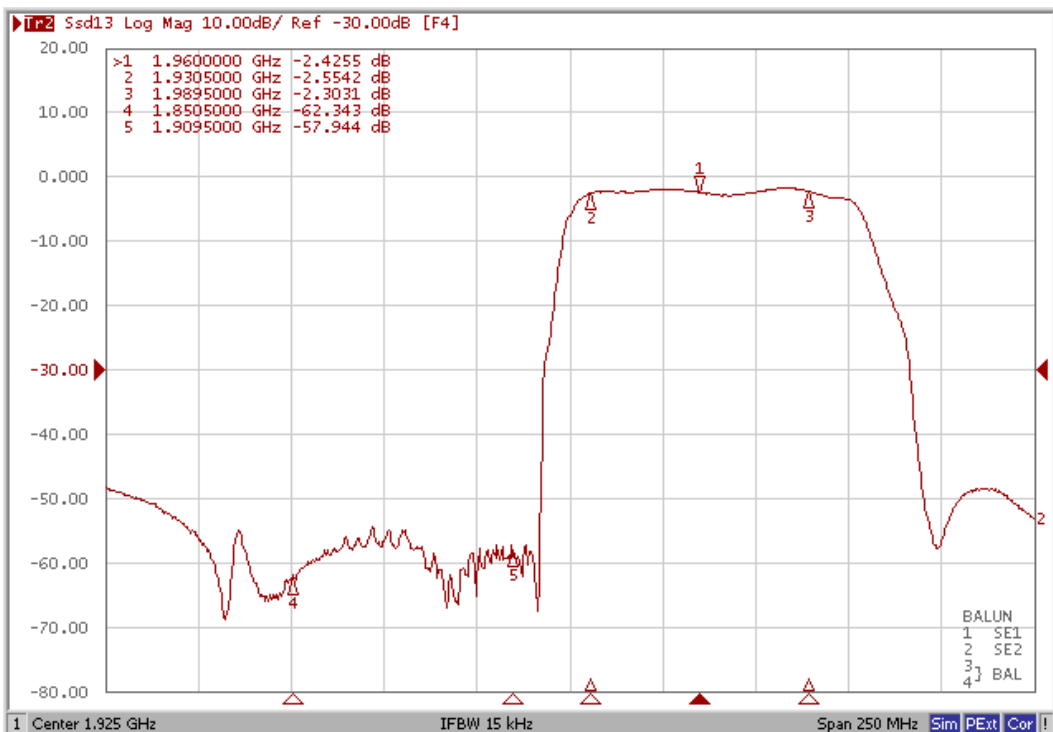




Tx to Ant:

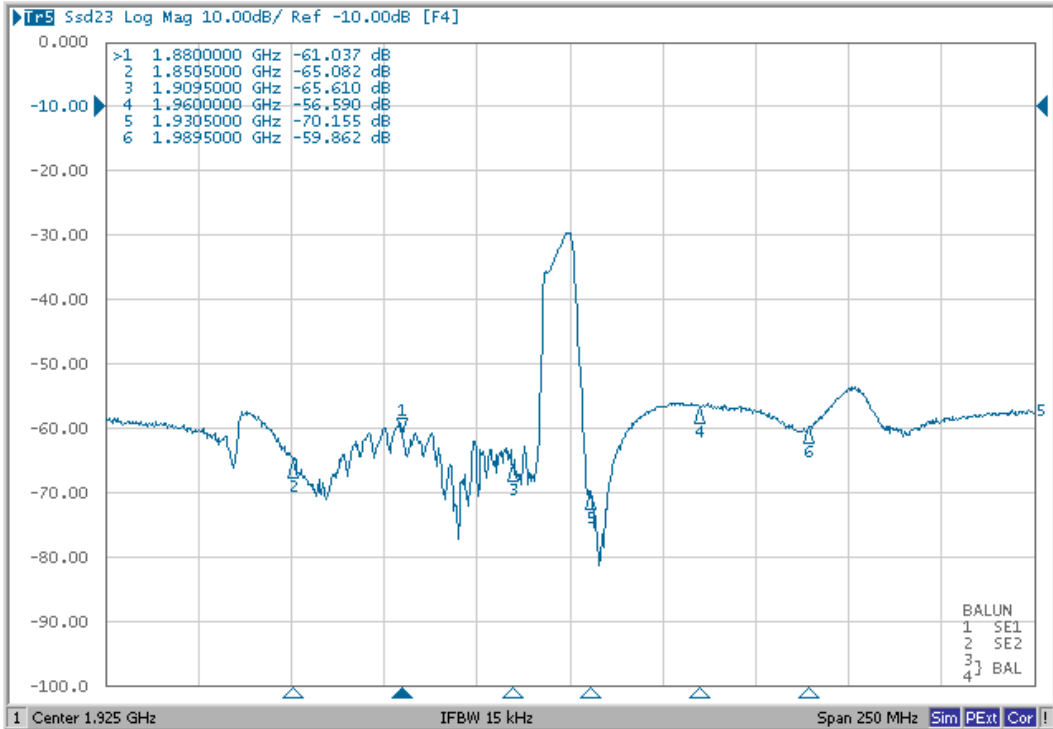


Ant to Rx:



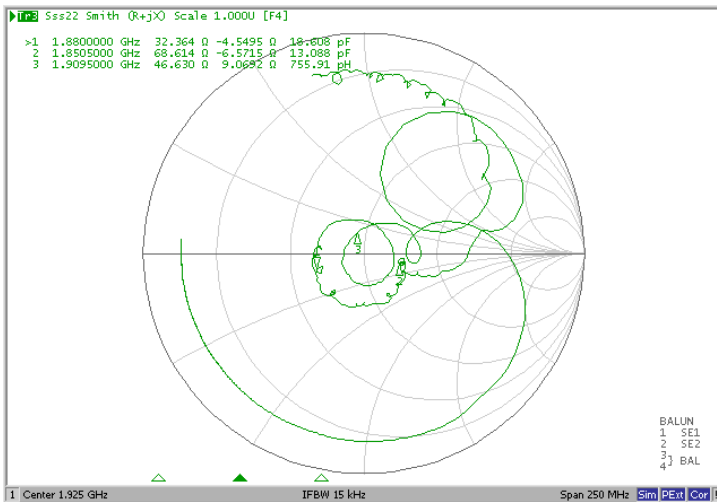


Isolation:

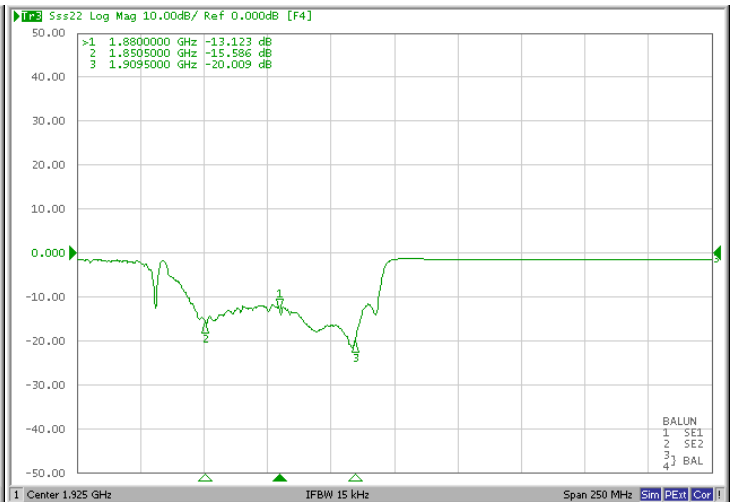


Tx Port:

Smith Chart



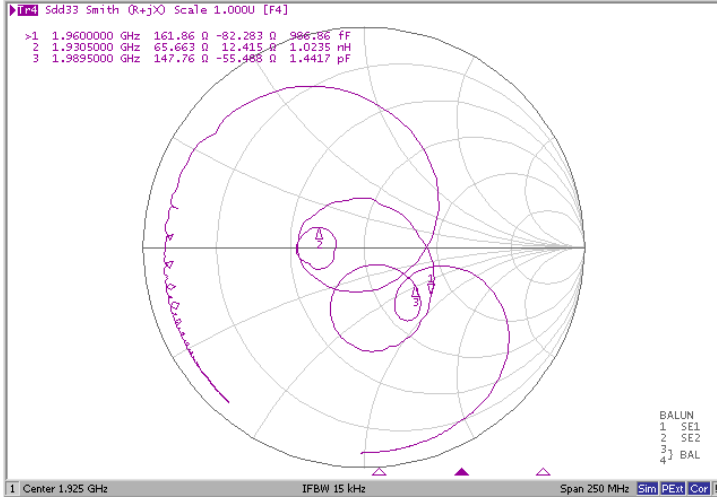
Return Loss





Rx Port:

Smith Chart

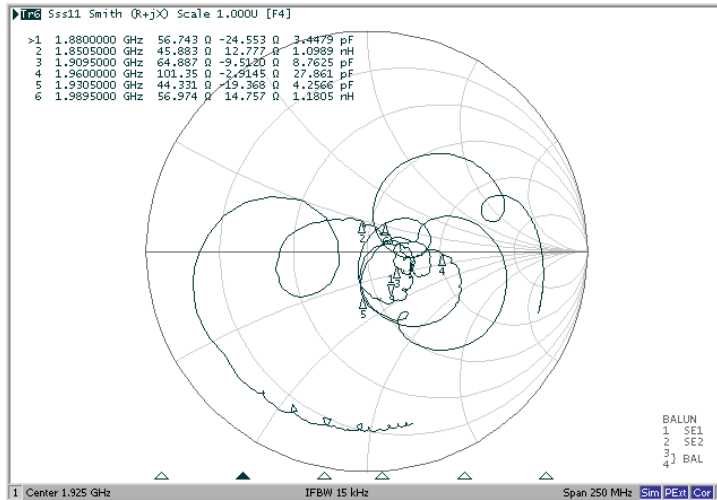


Return Loss

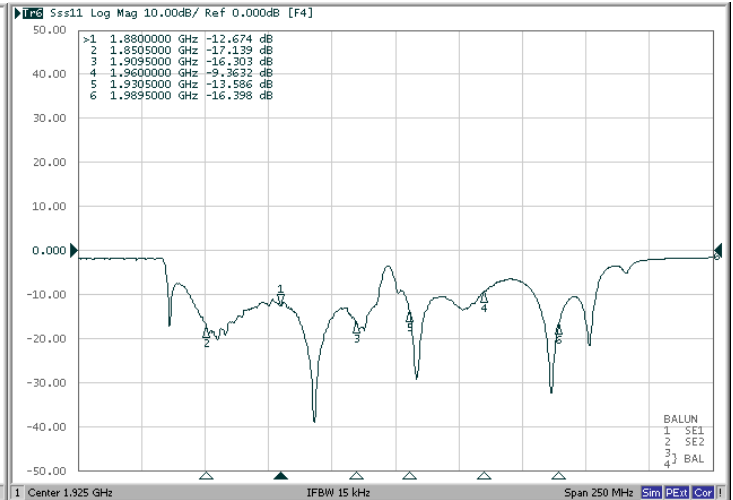


Ant Port:

Smith Chart

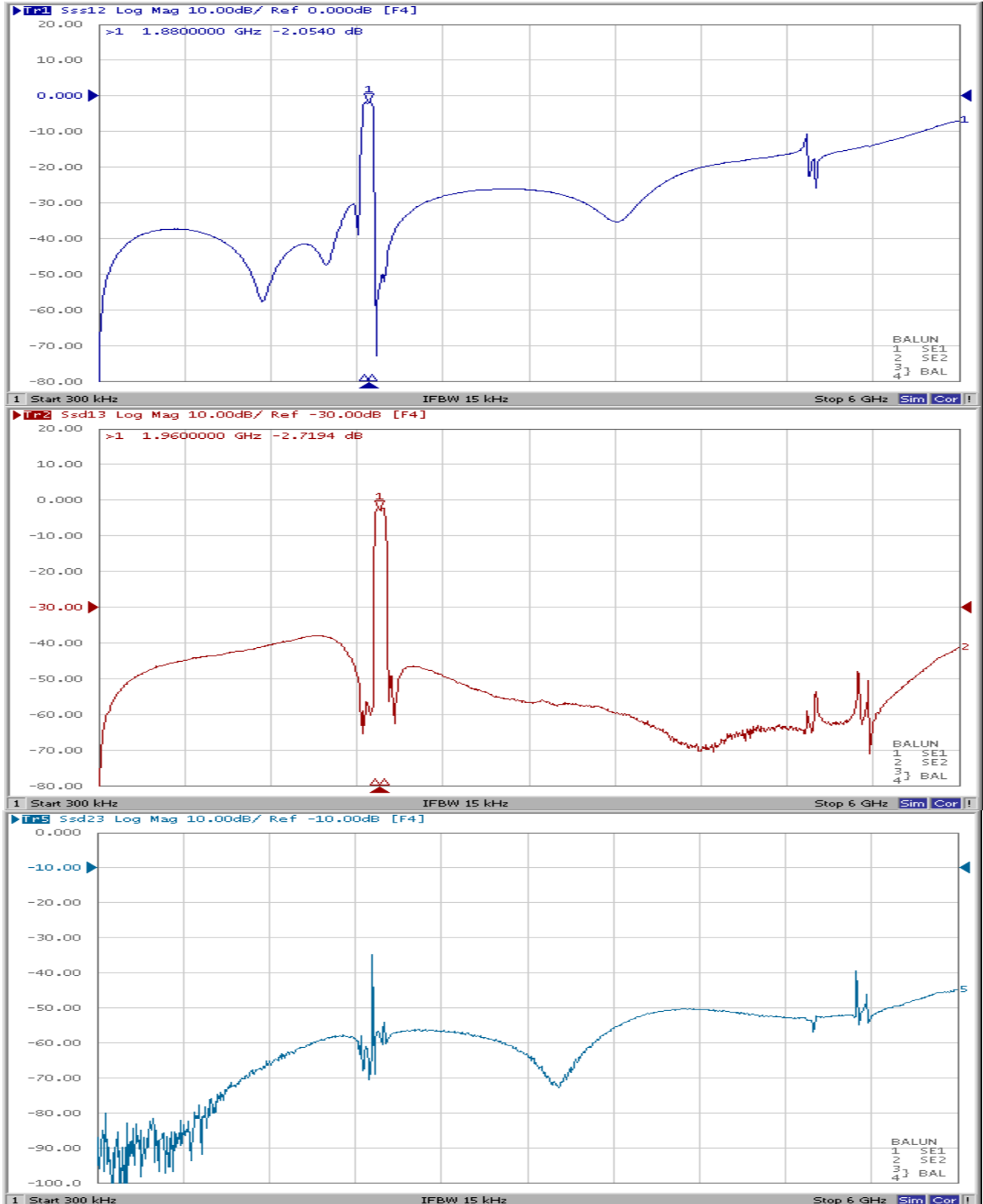


Return Loss



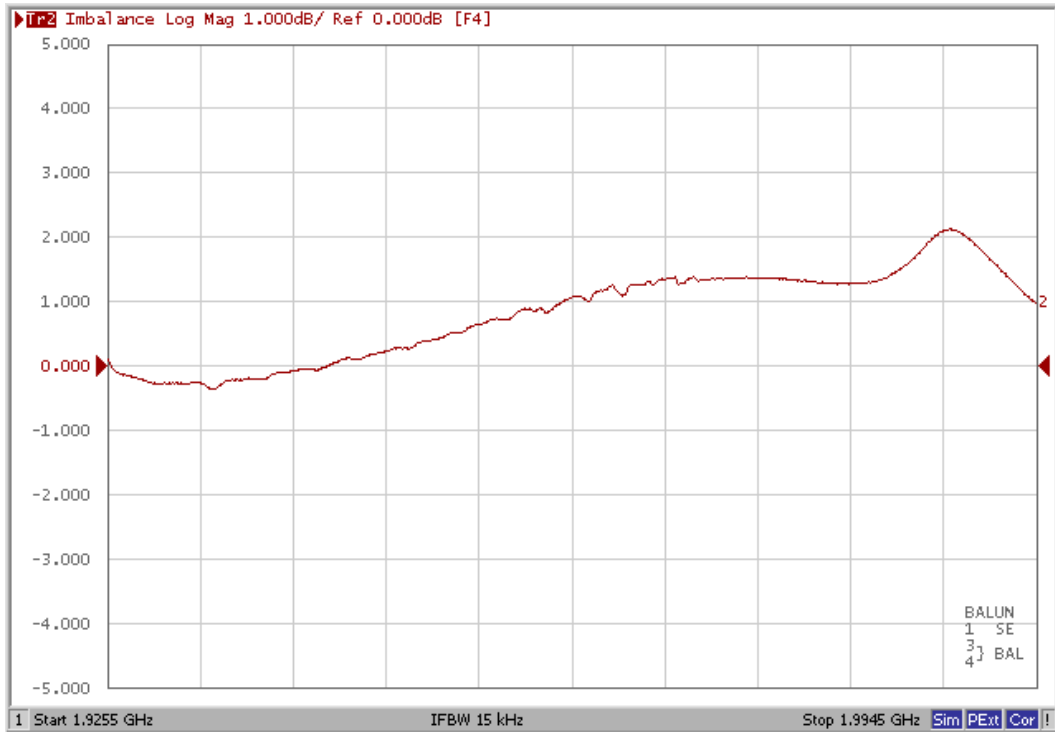


Wide Span:

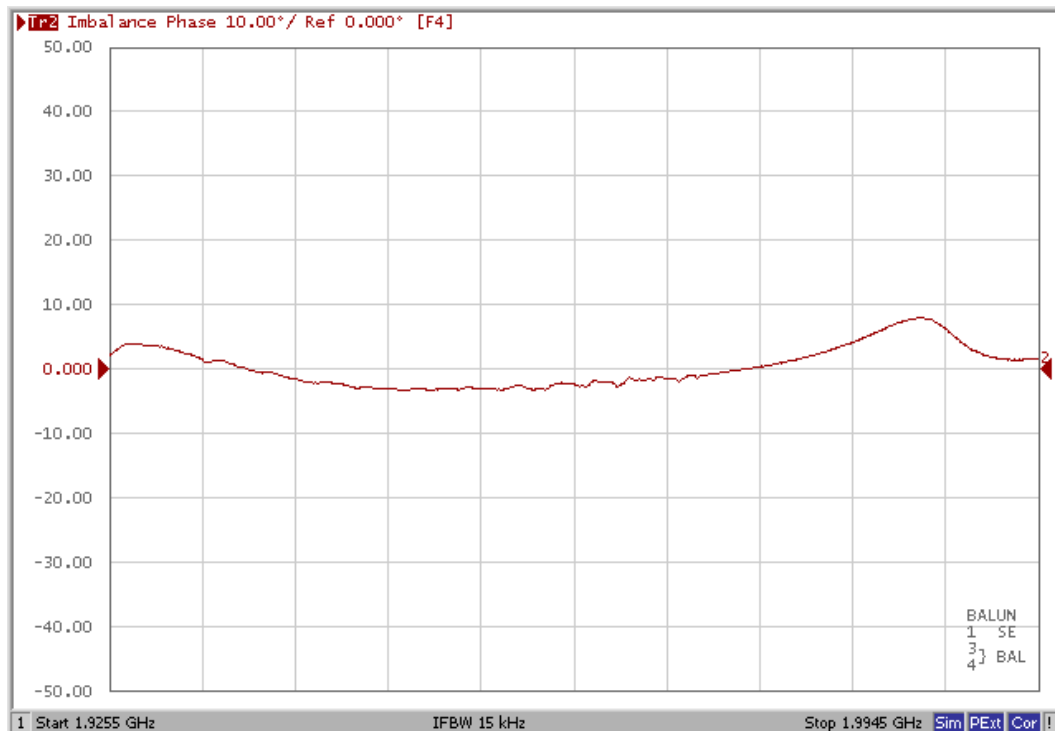




Amplitude Balance:

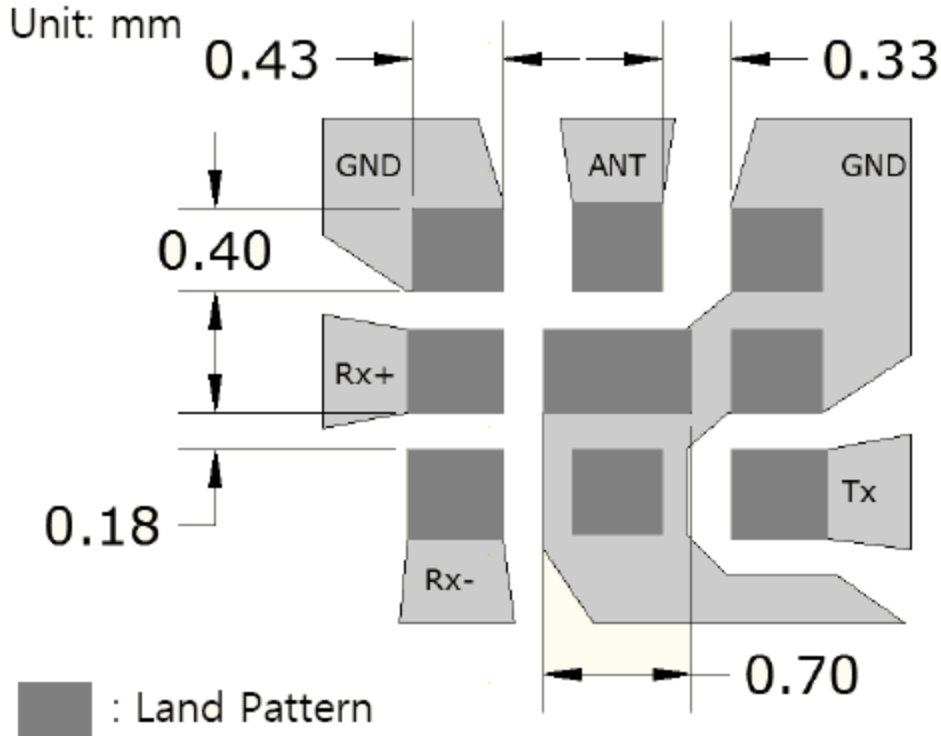


Phase Balance:





Foot print, Solder and Etc:



Notes:

1. Antenna and Tx ports are Single-ended port of 50Ω impedance
2. Each of the two balanced-ended port is 50Ω impedance. Total impedance is 100Ω
3. Dimensions of all signal line width & space should be adjusted for 50Ω lined