

- CDMA450 Rx Balanced SAW Duplexer For 453.55 MHz / 463.55 MHz
- Revision 0: May 2011

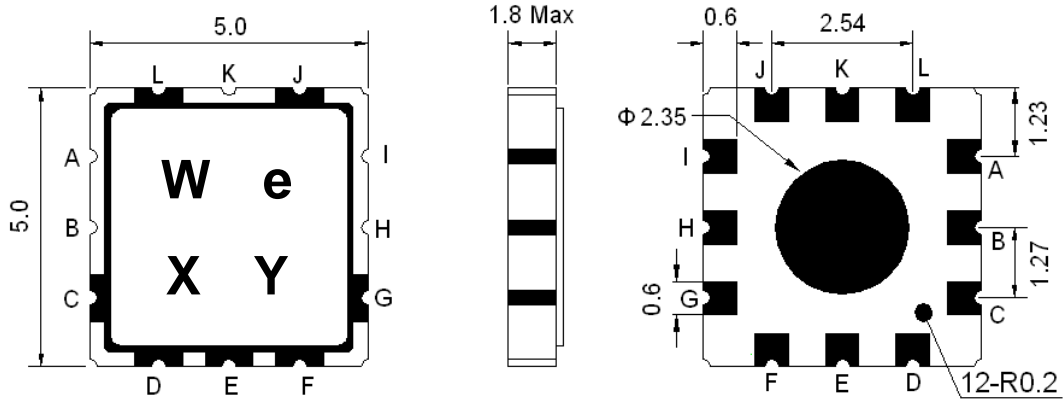
## Electrical Characteristics

MAXIMUM RATING				
PARAMETERS DESCRIPTION	UNIT	MINIMUM	TYPICAL	MAXIMUM
Operating Temperature Range	°C	-30	-	+85
Storage Temperature Range	°C	-40	-	+85
Maximum DC Voltage	V	-	0	-
Input Power Level	dBm	29dBm> 50000 Hours, CW tone(Ta= +55°C)		
Antenna & Tx Impedance(single ended)	Ω	-	50	-
Rx Impedance (balanced) <sup>(1)</sup>	Ω	-	100	-
Package type & size	K4			
Length x Width	mm <sup>2</sup>	-	5.0 x 5.0	-
Height	mm	-	1.8	-

ELECTRICAL SPECIFICATION					
PARAMETERS	CONDITION [MHZ]	UNIT	MINIMUM	TYPICAL	MAXIMUM
<b>Tx → Ant</b>		<b>Specifications</b>			
Insertion Loss	451.3 ~ 455.8	dB	-	2.0	3.2
Amplitude Ripple	451.3 ~ 455.8	dB <sub>p-p</sub>	-	0.5	1.5
Absolute Attenuation	D.C ~ 440.0	dB	25	32	-
	461.3 ~ 465.8	dB	40	55	-
	465.8 ~ 1700.0	dB	20	29	-
	1700.0 ~ 2000.0	dB	10	18	-
VSWR	451.3 ~ 455.8	-	-	2.0	2.5
<b>Ant → Rx</b>		<b>Specifications</b>			
Insertion Loss	461.3 ~ 465.8	dB	-	2.8	3.8
Amplitude Ripple	461.3 ~ 465.8	dB <sub>p-p</sub>	-	0.7	1.5
Amplitude Imbalance	461.3 ~ 465.8	dB	-1.0	-0.6/0.1	1.0
Phase Imbalance	461.3 ~ 465.8	deg	-10	4.0/6.0	10
Absolute Attenuation	D.C ~ 451.3	dB	40	50	-
	451.3 ~ 455.8	dB	45	50	-
	485.0 ~ 507.5	dB	35	44	-
	507.5 ~ 1200.0	dB	25	35	-
	1200.0 ~ 2000.0	dB	15	25	-
VSWR	461.3 ~ 465.8	-	-	2.0	2.3
<b>Tx → Rx</b>		<b>Specifications</b>			
Isolation	451.3 ~ 455.8	dB	52	60	-
	461.3 ~ 465.8	dB	52	70	-

**Notes :** (1) With Matching Network .

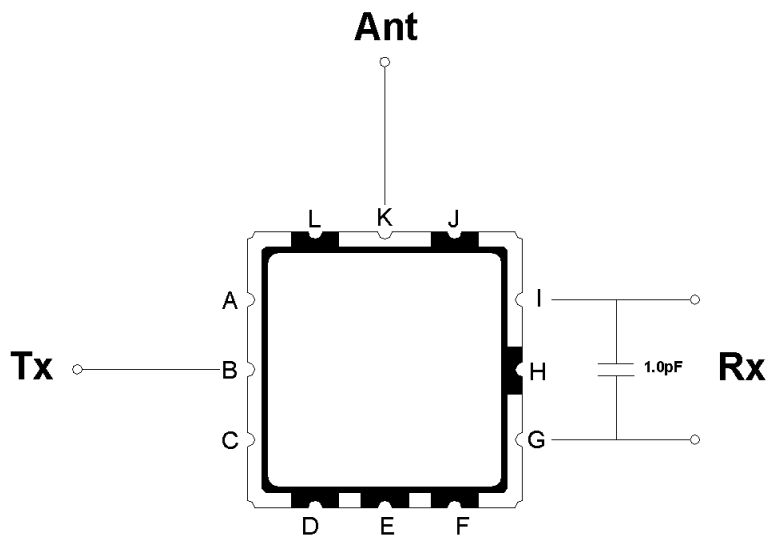
## Package Dimensions



Marking Descriptions	
W	CDMA450 Application
e	Series Number
X	Date Code (Year)
Y	Date Code (Month)

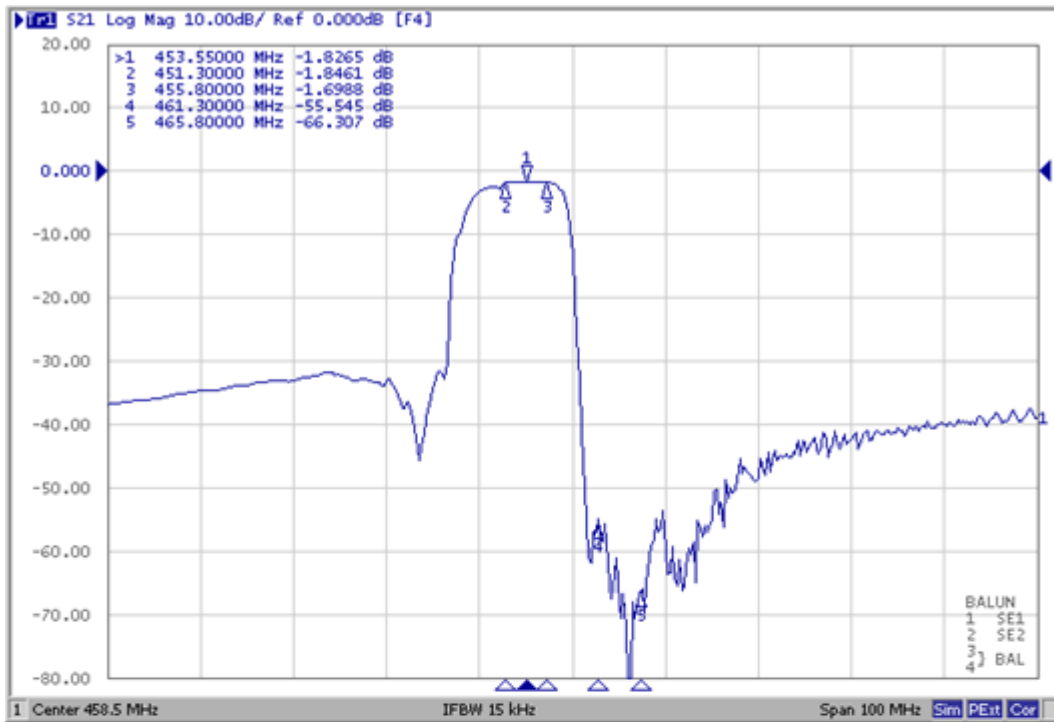
Pin Description	
A, C, D, E, F, H, J, L	Ground
K	Antenna
B	Tx
G, I	Rx Balanced

## Testing Environment

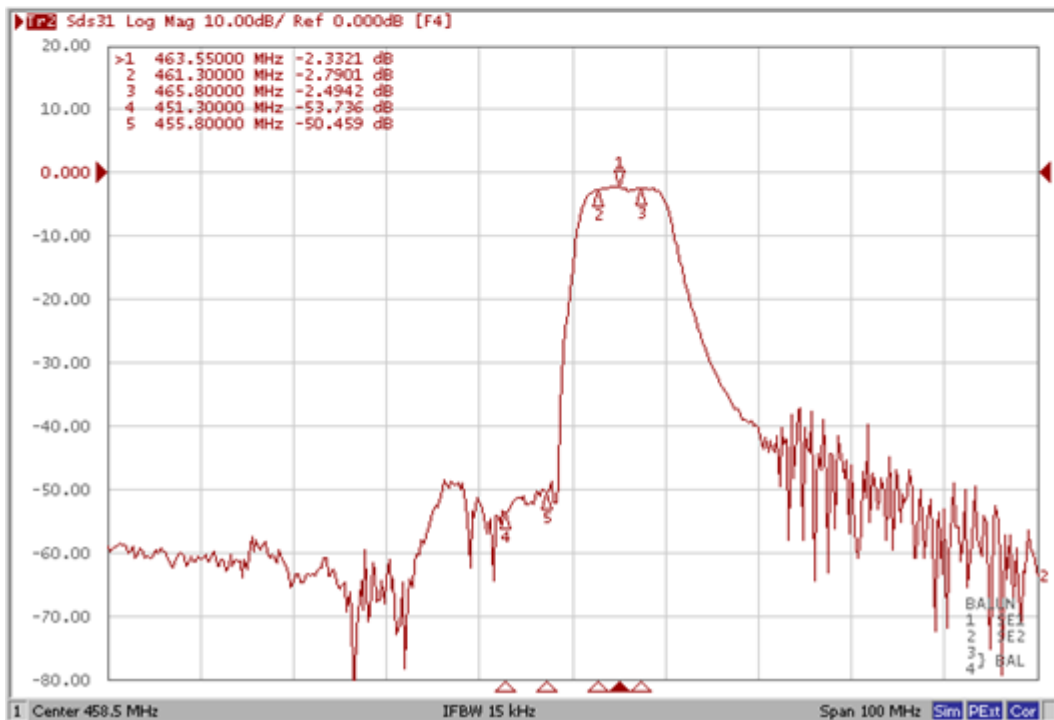


## Frequency Characteristics

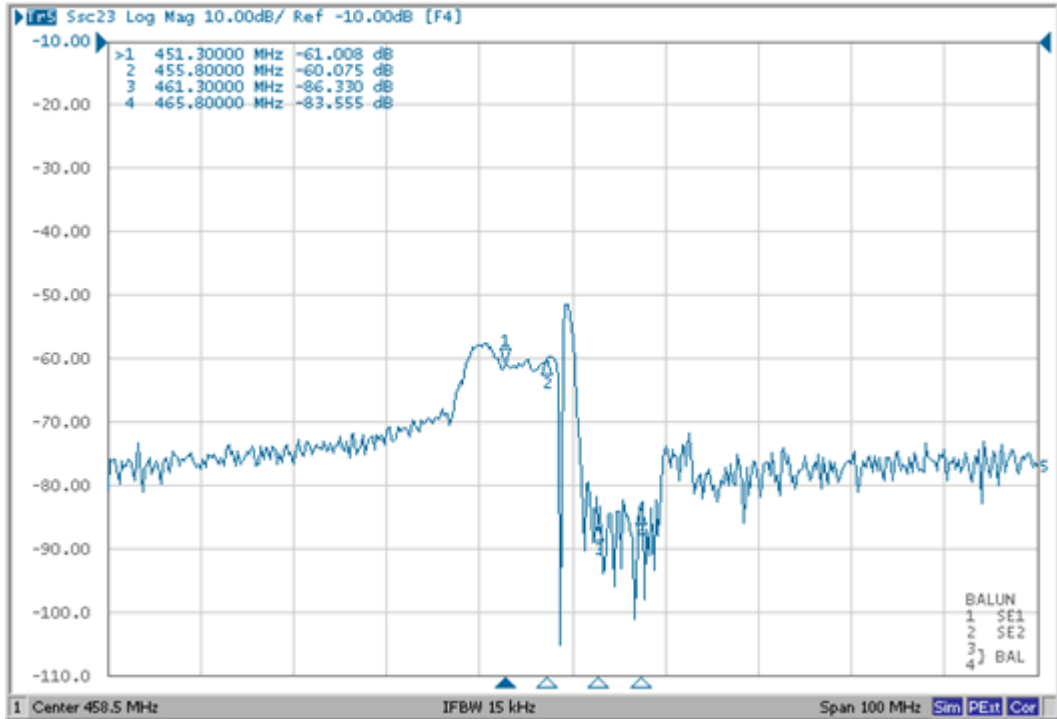
**Tx to Ant**



**Ant to Rx**

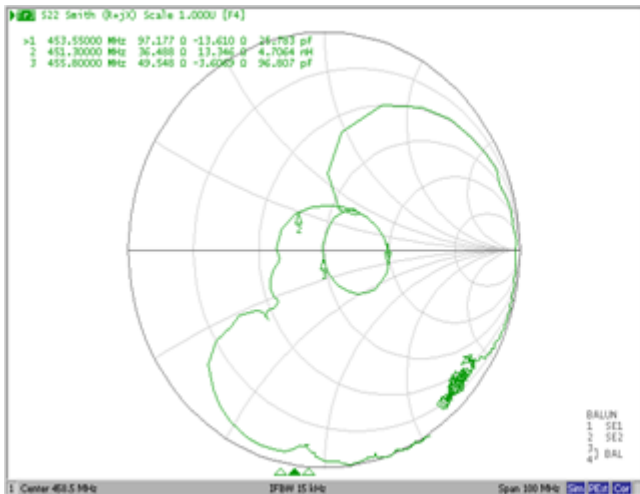


**Isolation**

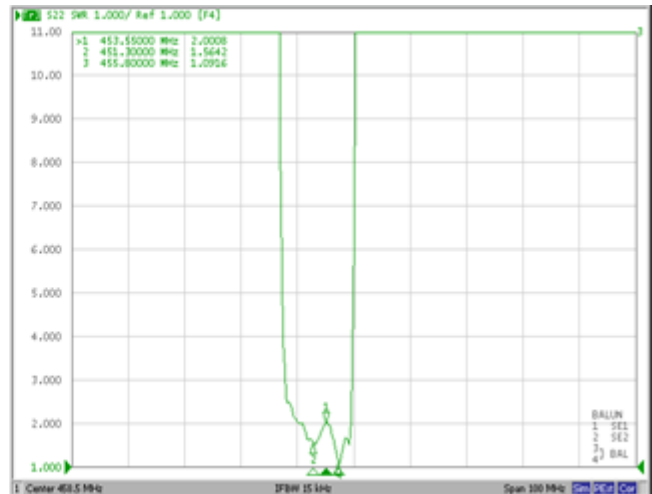


**Tx Port**

**Smith Chart**

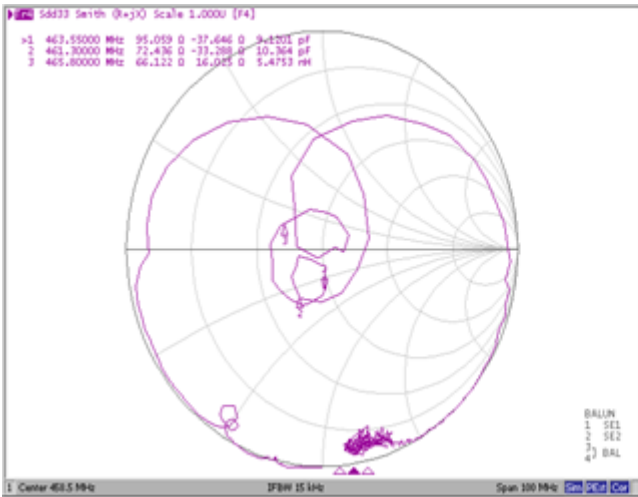


**VSWR**

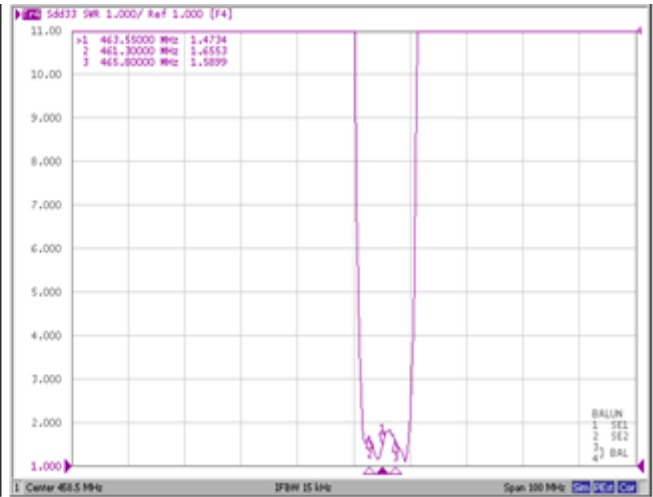


**Rx Port**

**Smith Chart**

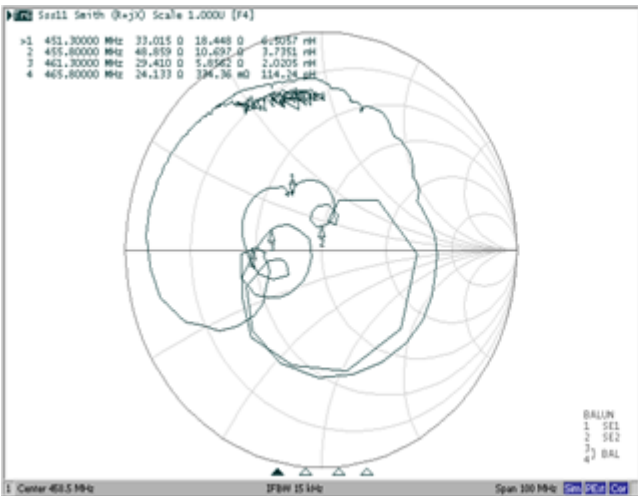


**VSWR**

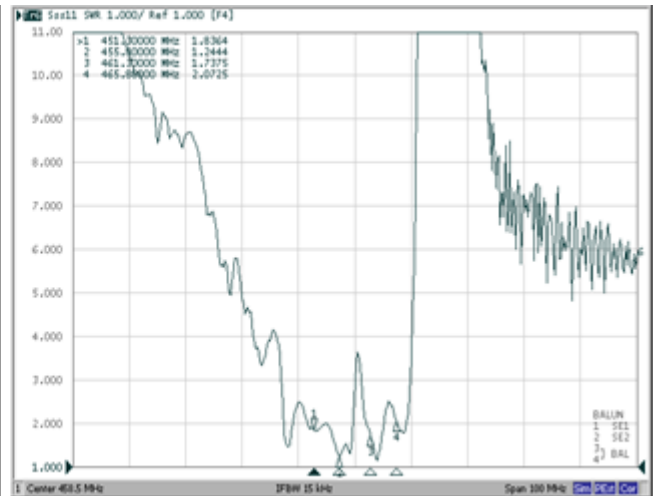


**Ant Port**

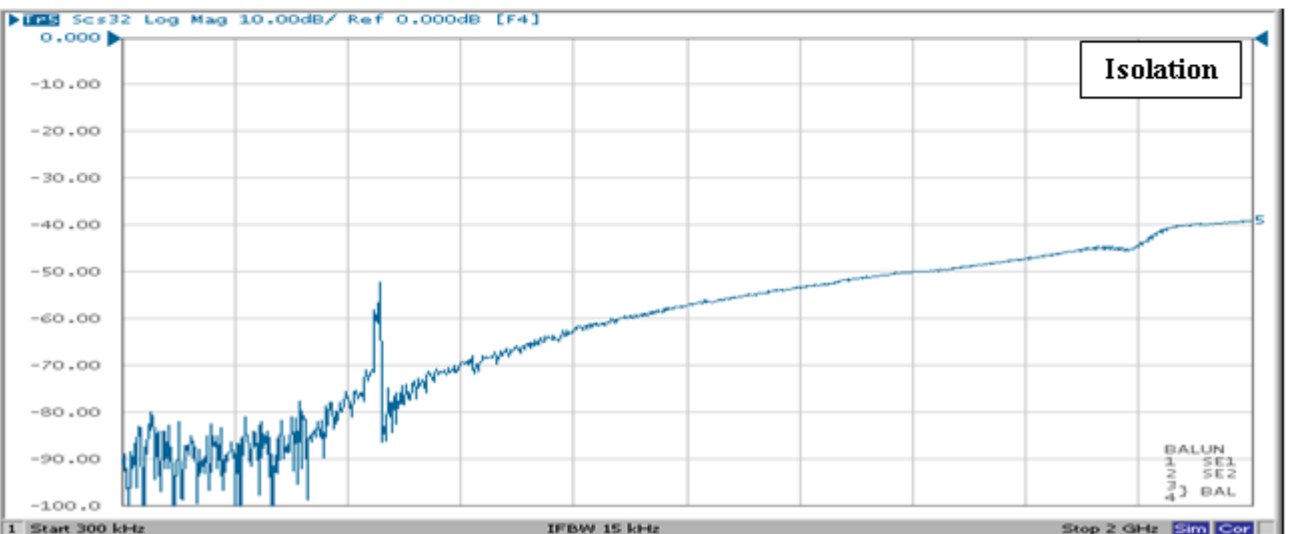
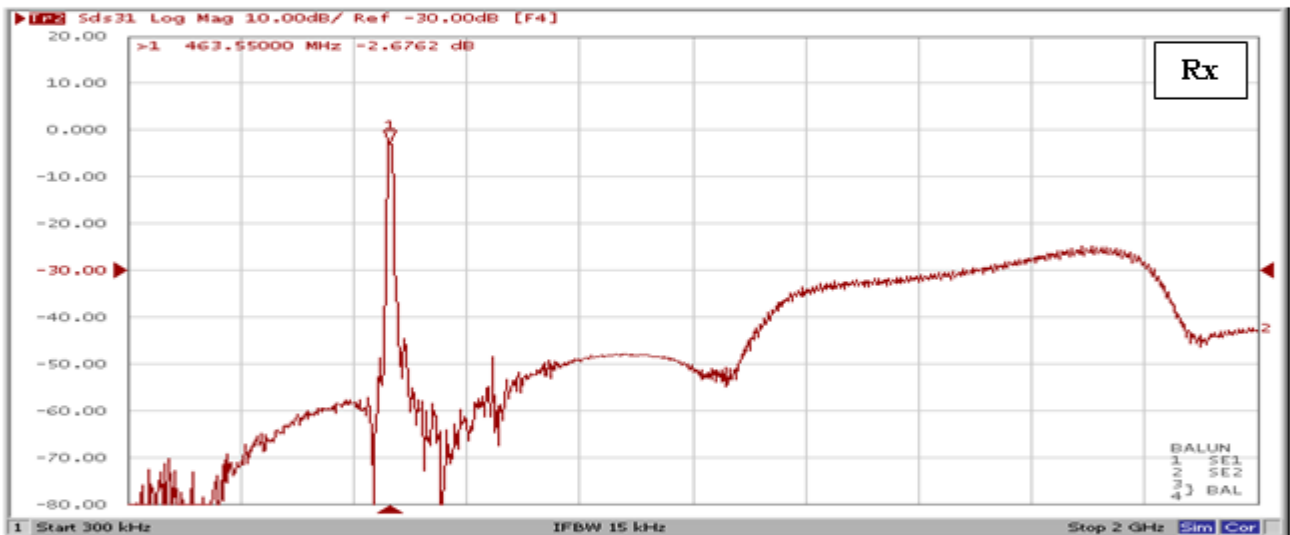
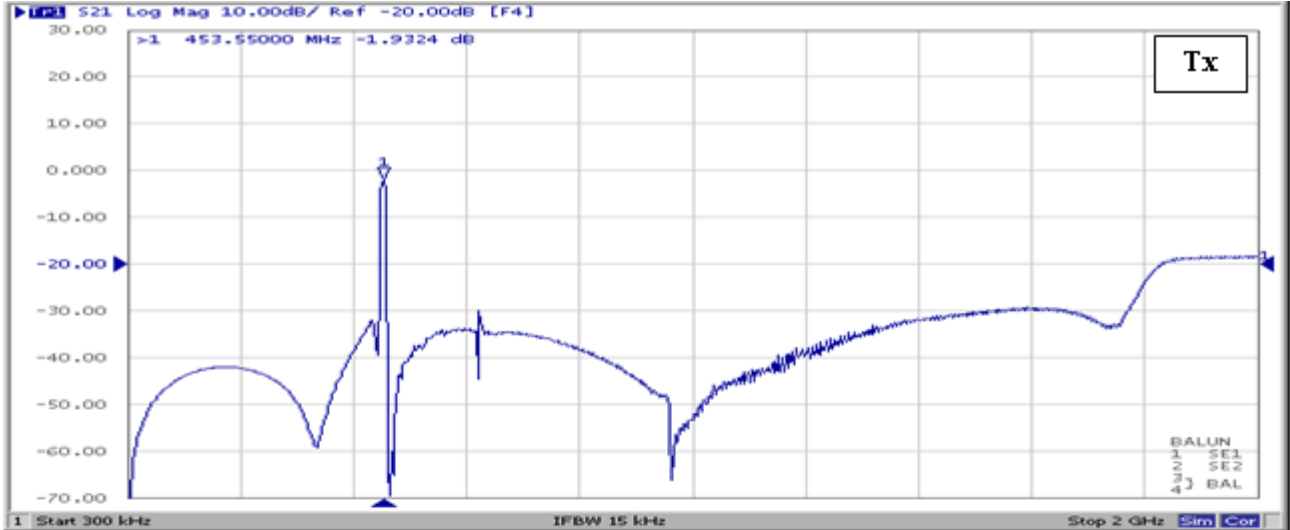
**Smith Chart**



**VSWR**



**Wide Span**



**Amplitude Imbalance**



**Phase Imbalance**

