



Total Solution Provider in Saw Device

SD455EK5

CDMA 450 Rx Balanced SAW DUPLEXER

For 455.0 MHz / 465.0 MHz

Revision 0: January 2011



- Electrical Characteristics
 - Package Dimensions
 - Testing Environment
 - Frequency Characteristics
-

SAWNICS Inc.

460 Cheonheung-ri, Seonggeo-eup, Cheonan-si, Chungcheongnam-do, 330-836 / Korea.
Tel: +82 41 550 9372 / Fax: +82 41 550 9399 / www.sawnics.com



Electrical Characteristics

Maximum Ratings

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	dBm	29dBm> 50000 Hours, CW tone(Ta= +55°C)		
Antenna & Tx Impedance(single ended)	Ω	50		
Rx Impedance (balanced) ⁽¹⁾	Ω	100		
Package type	K5			
Length x Width	mm ²	5.0 x 5.0		
Height	mm	1.8		

Electrical Specification

Tx → Ant		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	452.5 ~ 457.5	dB	-	2.0	3.2
Return Loss	452.5 ~ 457.5	dB	8	11	-
Absolute Attenuation	462.5 ~ 467.5	dB	45	55	-
	1574.0	dB	20	28	-
	480.0 ~ 1200.0	dB	25	30	-
	1200.0 ~ 2100.0	dB	10	17	-



SD455EK5

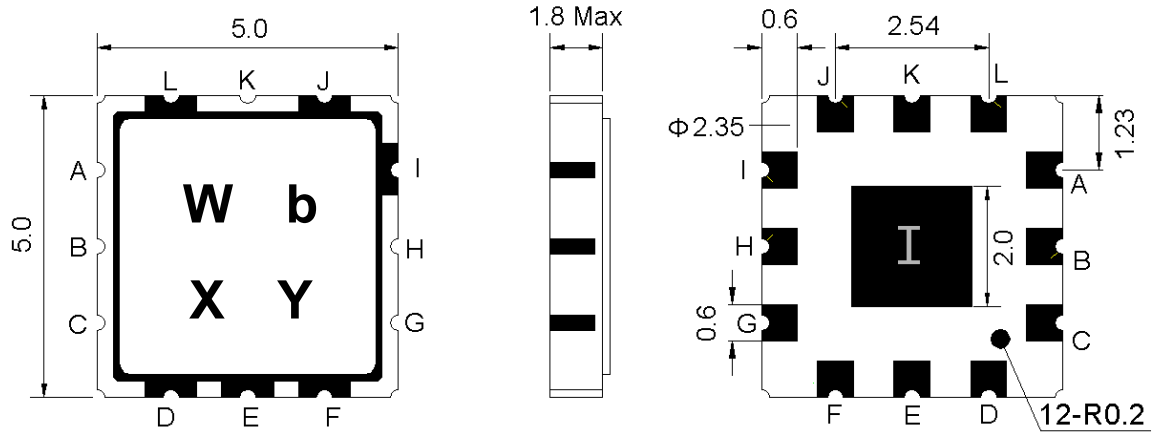
CDMA450 Rx Balanced SAW DUPLEXER FOR455.0 MHz / 465.0MHz

Ant → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	462.5 ~ 467.5	dB	-	3.0	3.8
Amplitude Imbalance	462.5 ~ 467.5	dB	-1.0	-0.5/0.35	1.0
Phase Imbalance	462.5 ~ 467.5	deg	-10	6.0/8.0	10
Return Loss	462.5 ~ 467.5	dB	8	10	-
Absolute Attenuation	452.5 ~ 457.5	dB	45	52	-
	477.0 ~ 480.0	dB	30	35	-
	480.0 ~ 1200.0	dB	30	35	-
	1200.0 ~ 2100.0	dB	18	25	-

Tx → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation	452.5 ~ 457.5	dB	52	63	-
	462.5 ~ 467.5	dB	52	65	-

Notes : (1) No Matching Network .

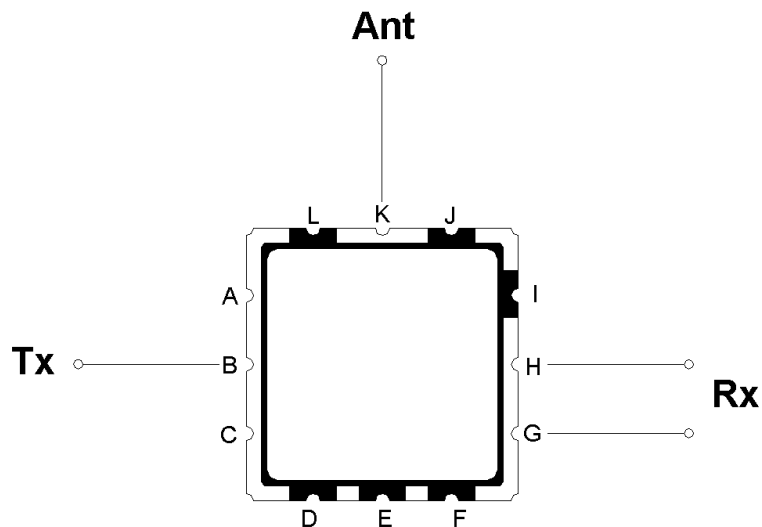
Package Dimensions



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

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

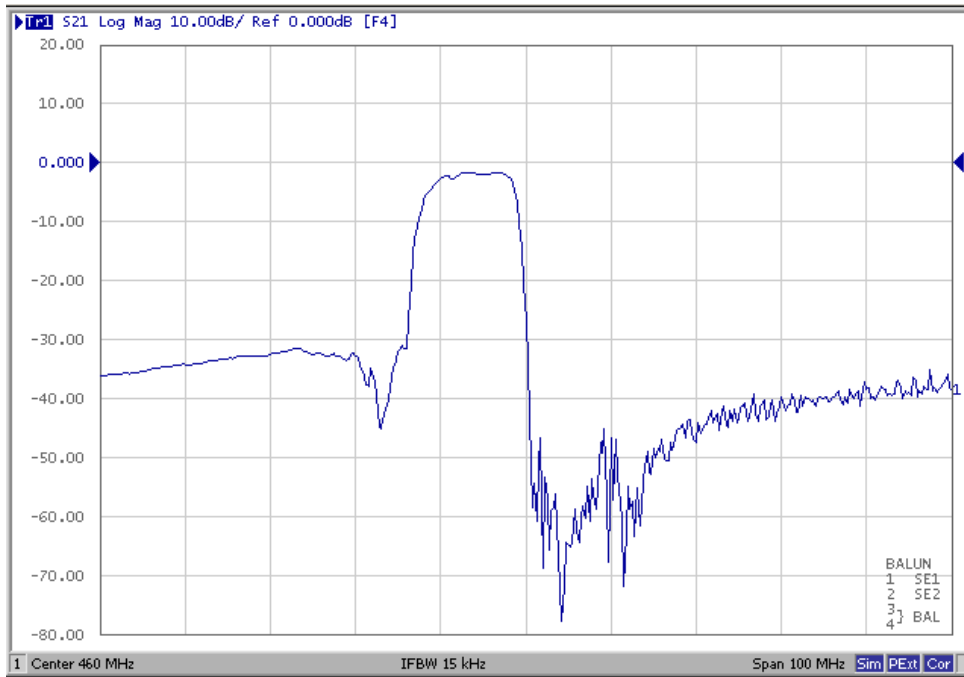
Testing Environment



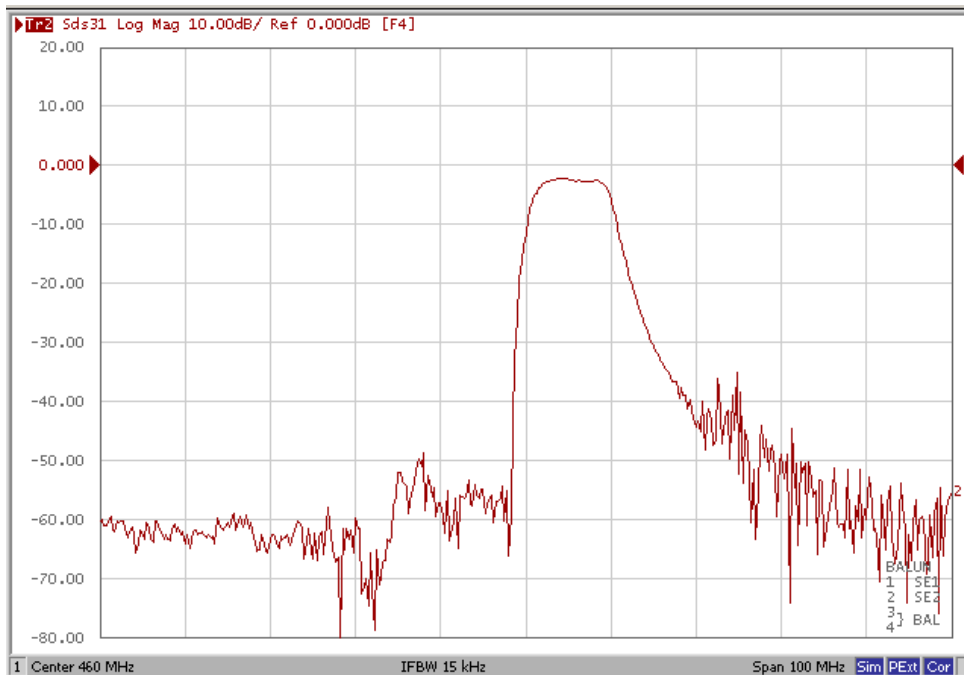


Frequency Characteristics

Tx to Ant

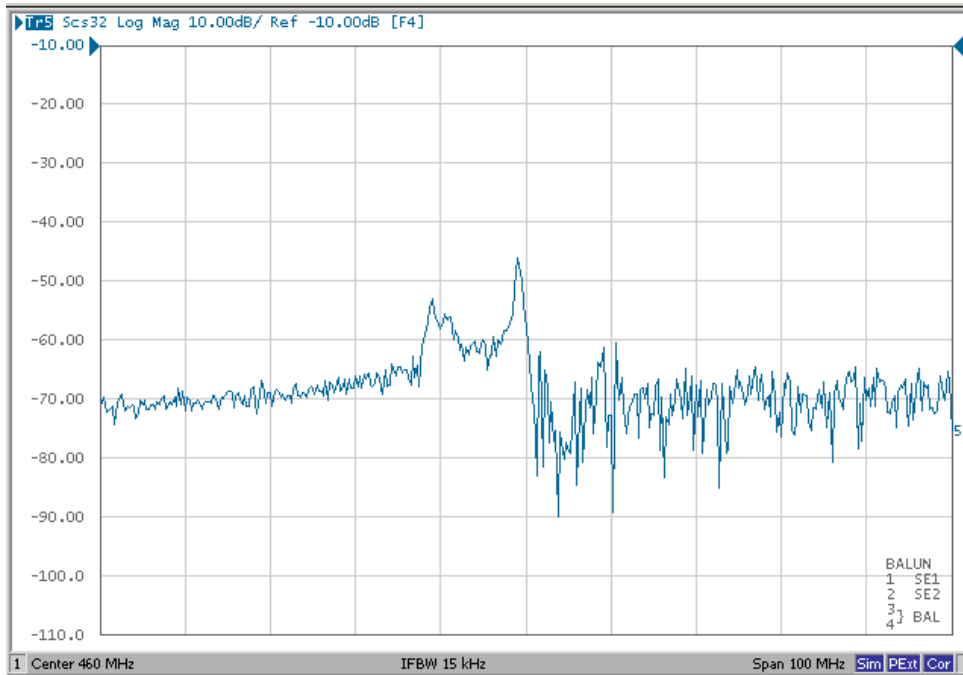


Ant to Rx



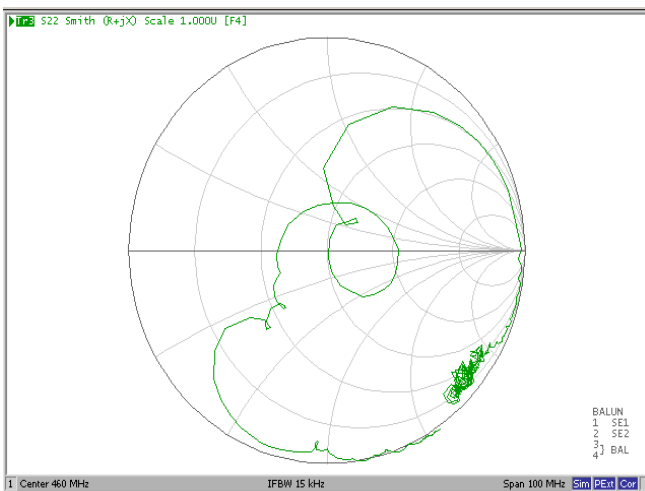


Isolation

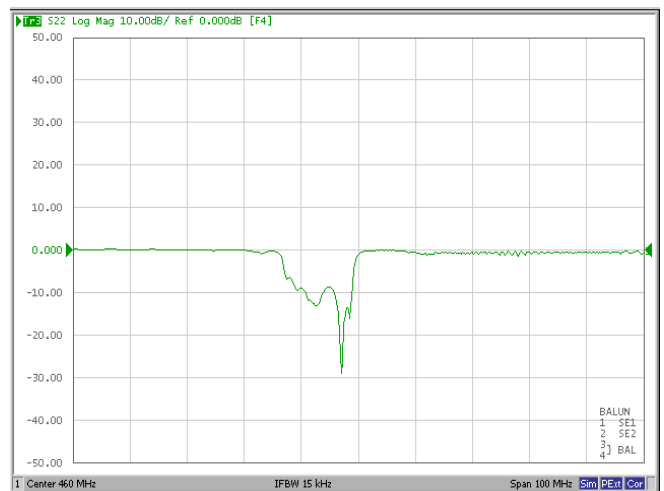


Tx Port

Smith Chart



Return Loss

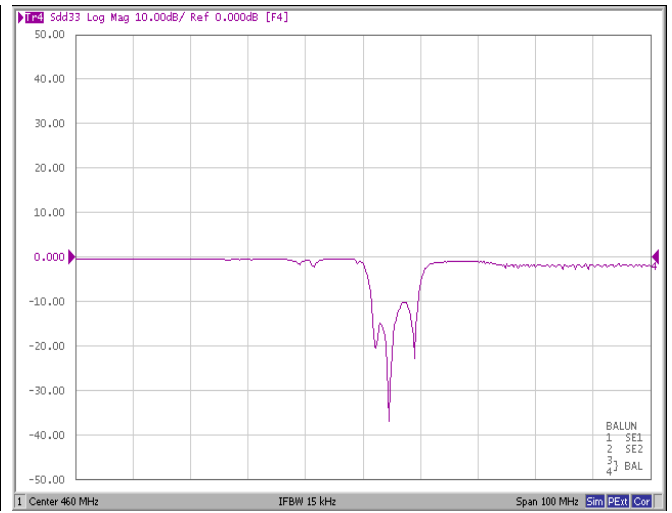
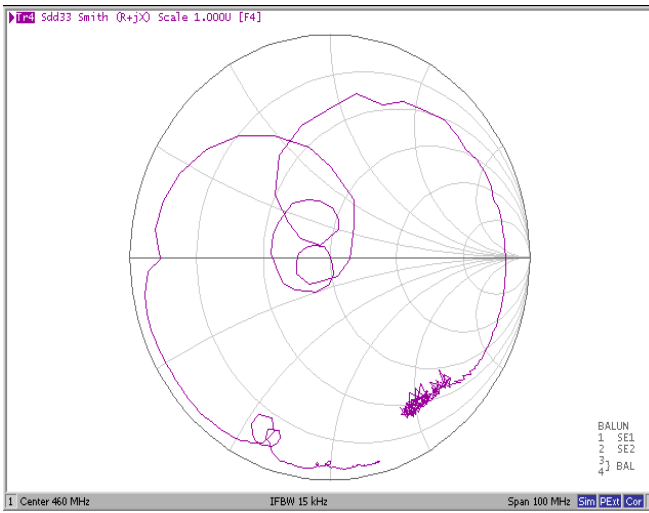




Rx Port

Smith Chart

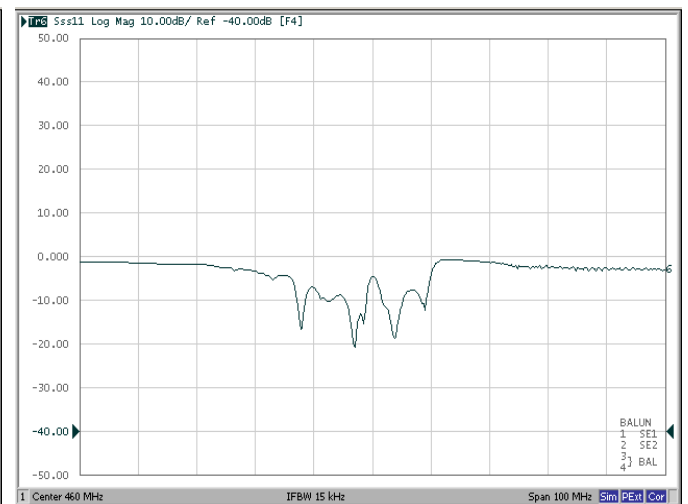
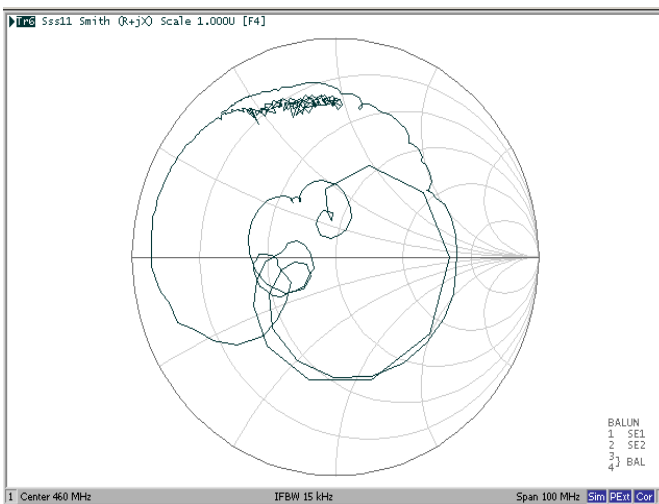
Return Loss



Ant Port

Smith Chart

Return Loss

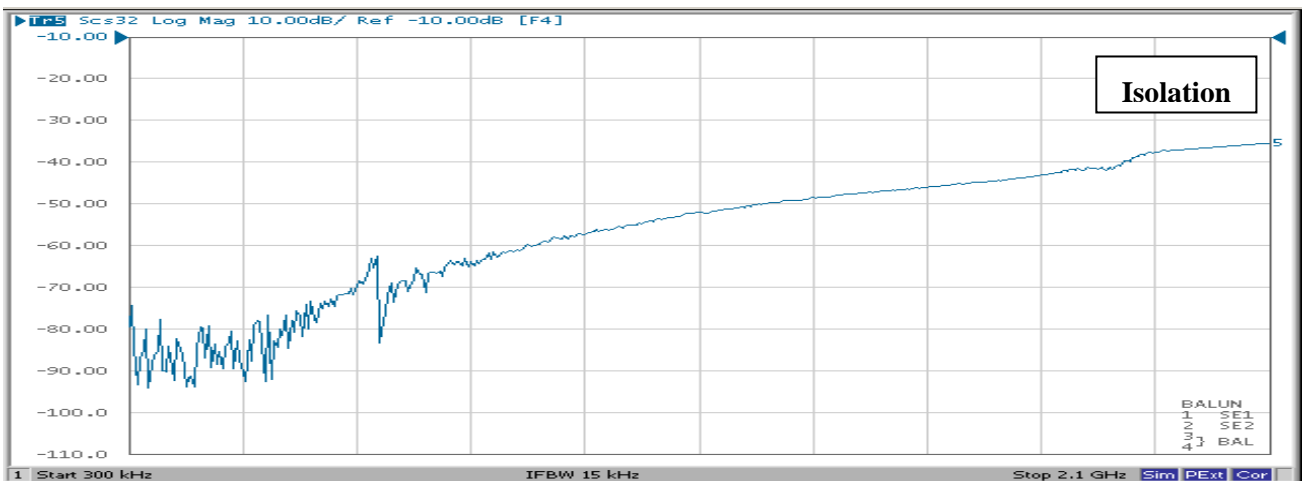
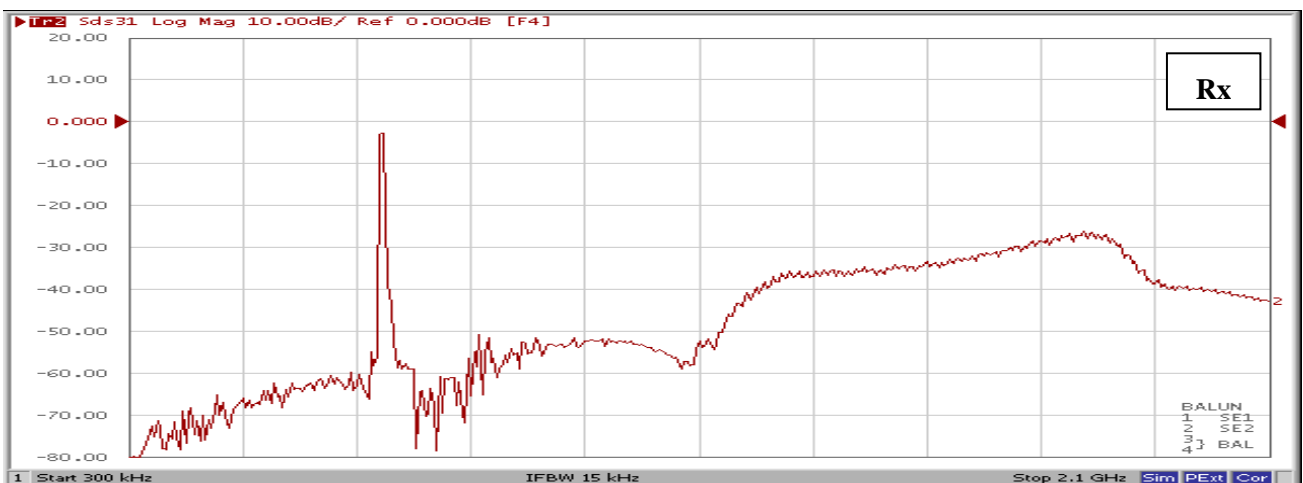
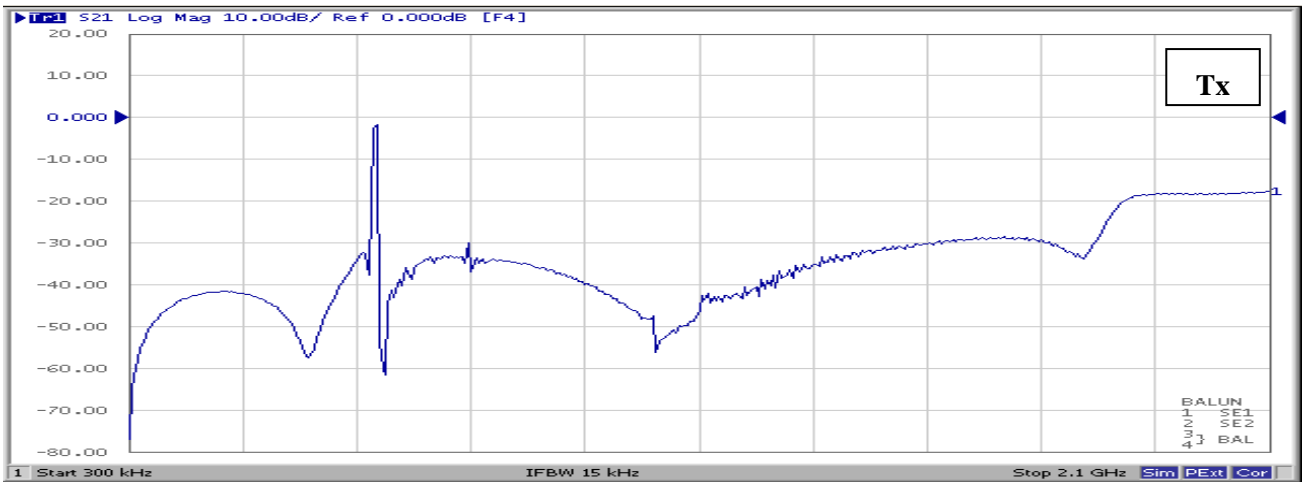




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Wide Span





Amplitude Imbalance



Phase Imbalance

