



Total Solution Provider in Saw Device

SD455EK6

CDMA 450 Rx Balanced SAW DUPLEXER

For 455.0 MHz / 465.0 MHz

Revision 0: June 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	K6			
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	-	2.2	3.2
Return Loss	452.5 ~ 457.5	dB	9	12	-
Absolute Attenuation	462.5 ~ 467.5	dB	45	55	-
	1574.0	dB	25	38	-
	480.0 ~ 1200.0	dB	25	28	-
	1200.0 ~ 2100.0	dB	15	20	-

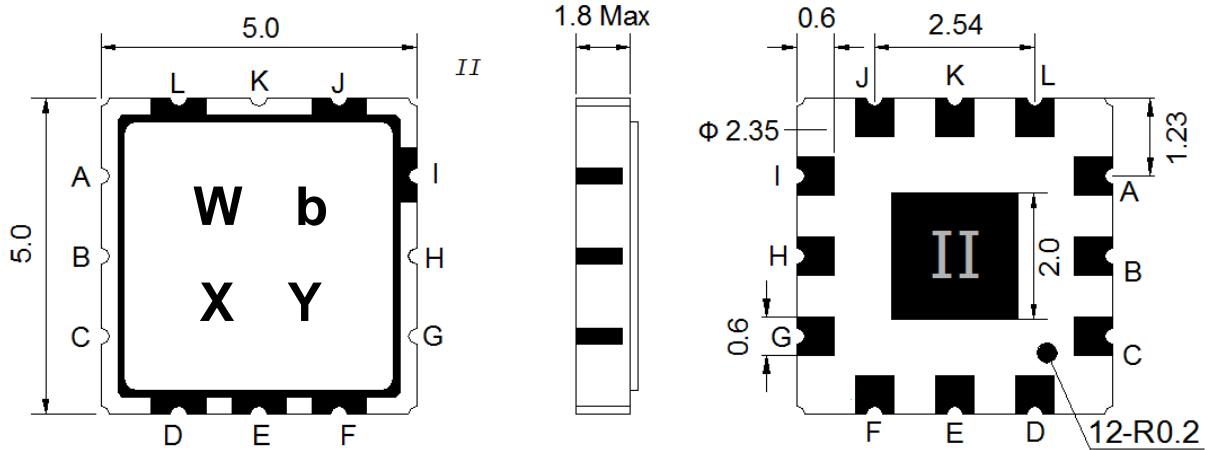


Ant → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	462.5 ~ 467.5	dB	-	3.2	3.8
Amplitude Imbalance	462.5 ~ 467.5	dB	-1.0	-0.45/0.40	1.0
Phase Imbalance	462.5 ~ 467.5	deg	-15	8.0/10.0	15
Return Loss	462.5 ~ 467.5	dB	9	12	-
Absolute Attenuation	452.5 ~ 457.5	dB	45	52	-
	477.0 ~ 480.0	dB	30	35	-
	480.0 ~ 1200.0	dB	30	38	-
	1200.0 ~ 2100.0	dB	20	30	-

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 .

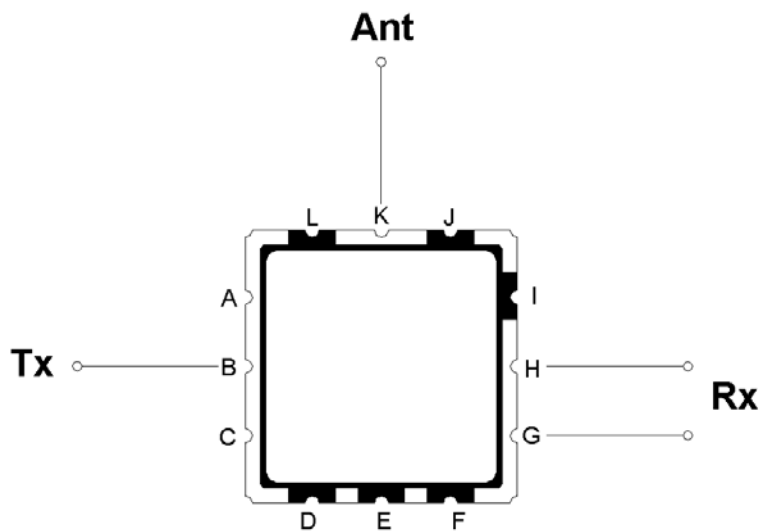
□ Package Dimensions



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

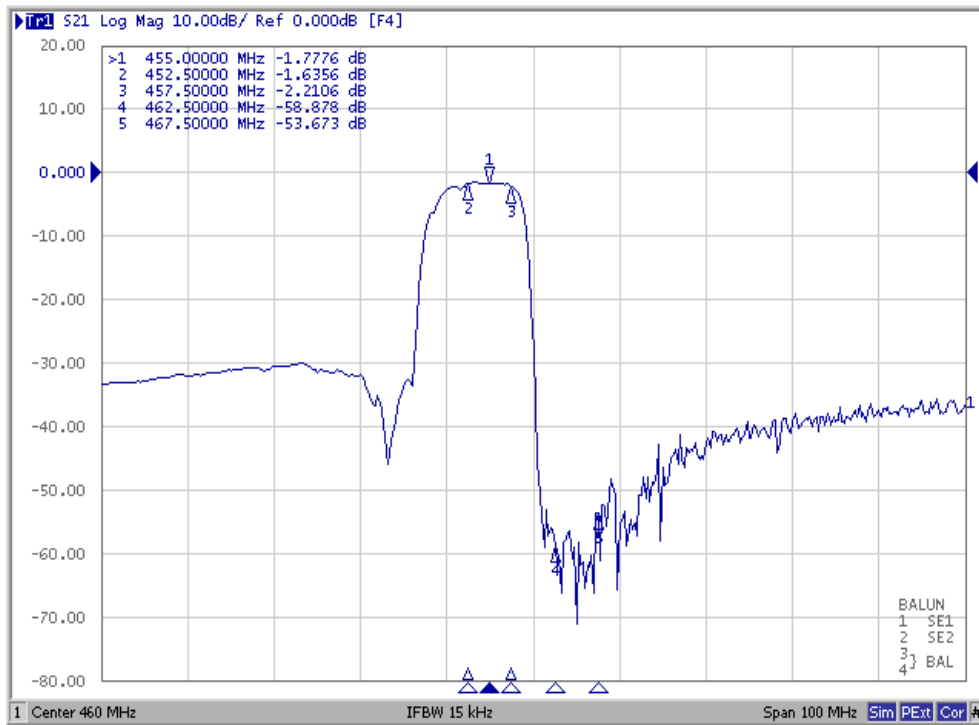
□ Testing Environment



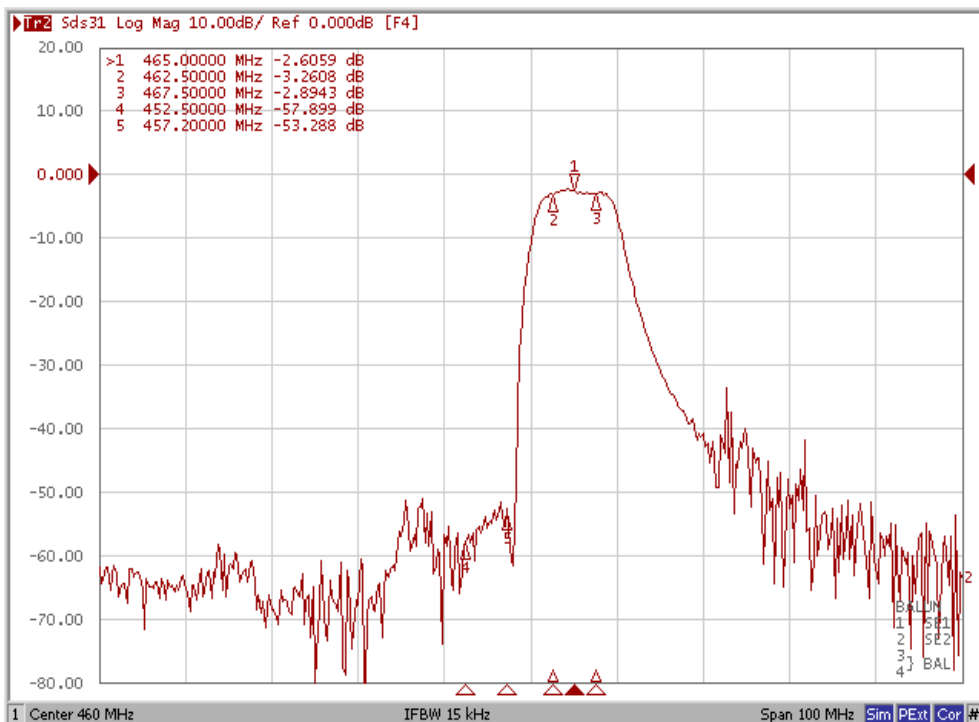


□ Frequency Characteristics

Tx to Ant

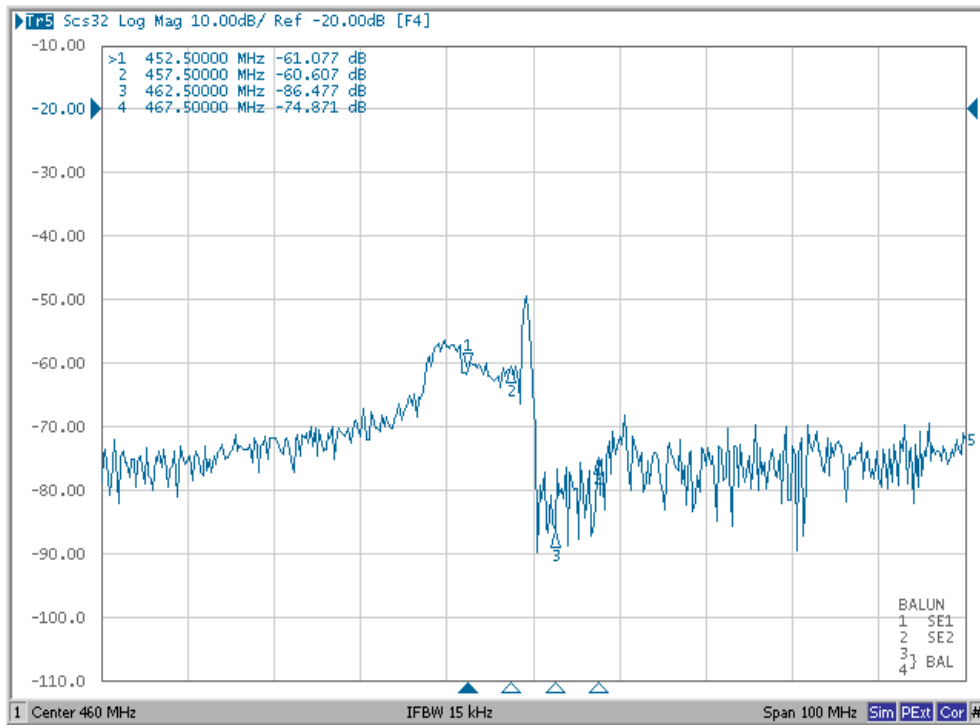


Ant to Rx



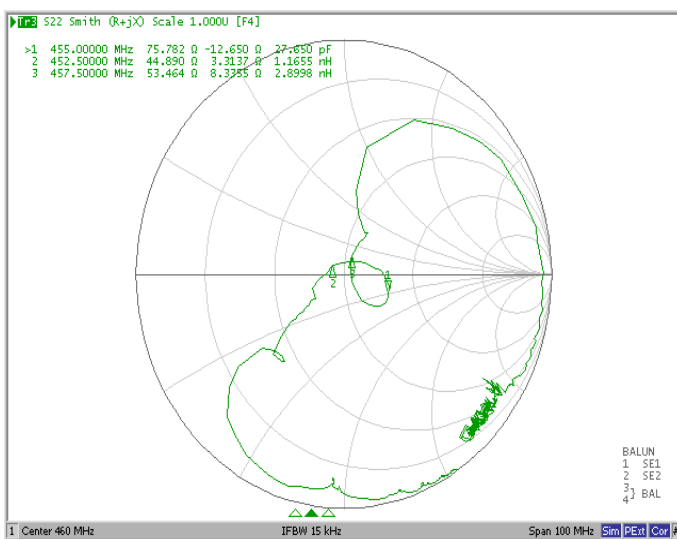


Isolation

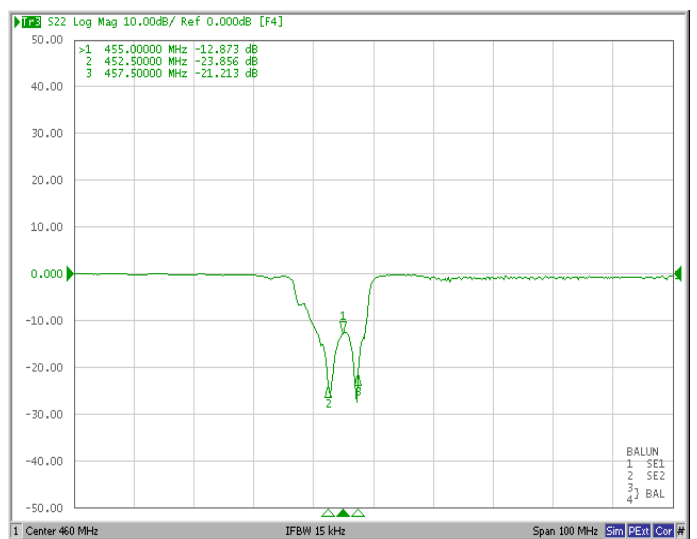


Tx Port

Smith Chart



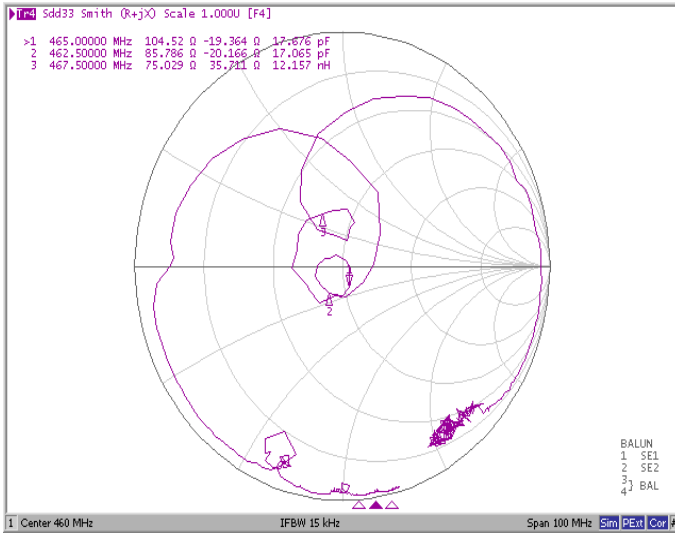
Return Loss



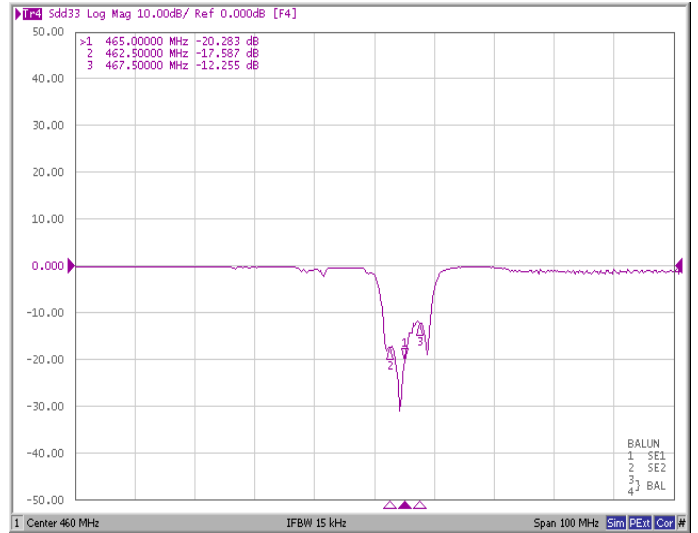


Rx Port

Smith Chart

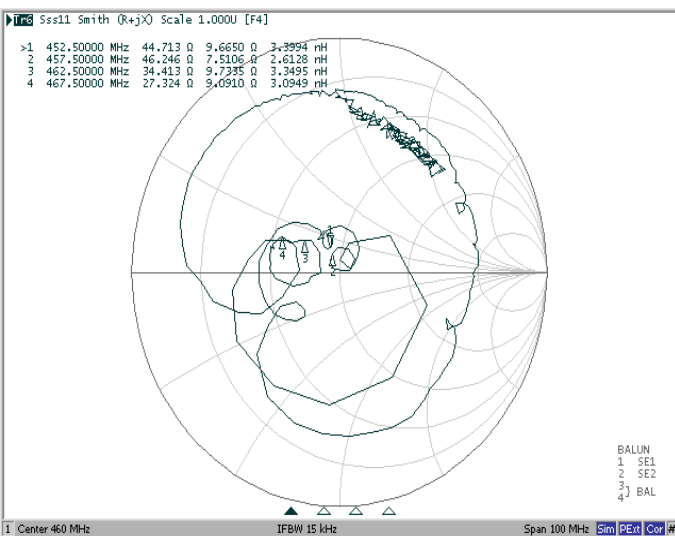


Return Loss

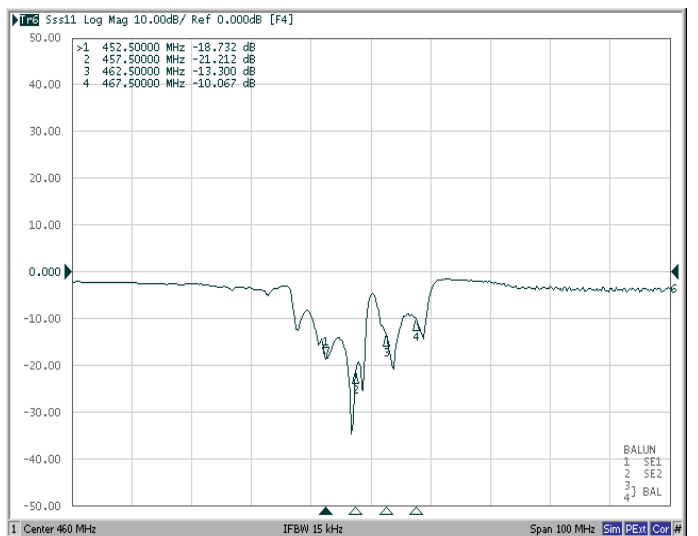


Ant Port

Smith Chart

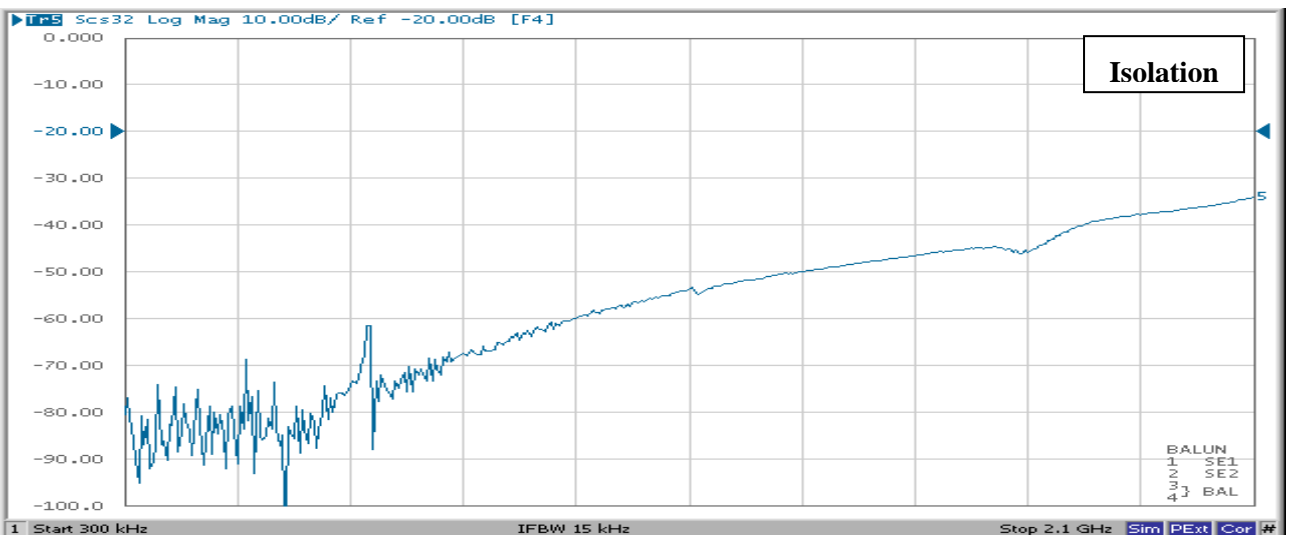
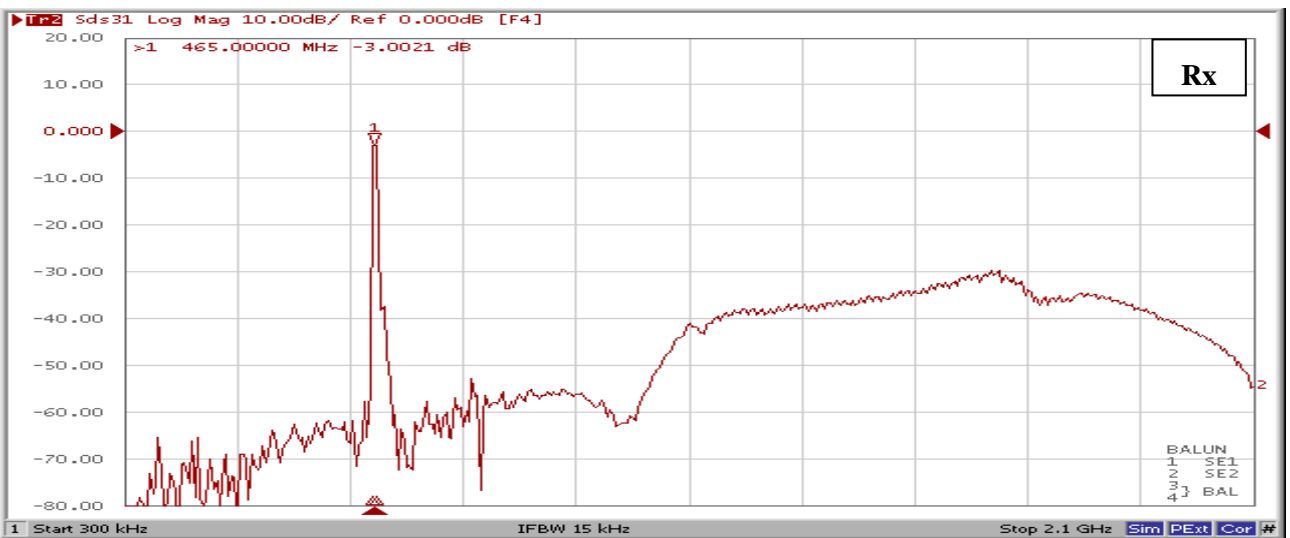
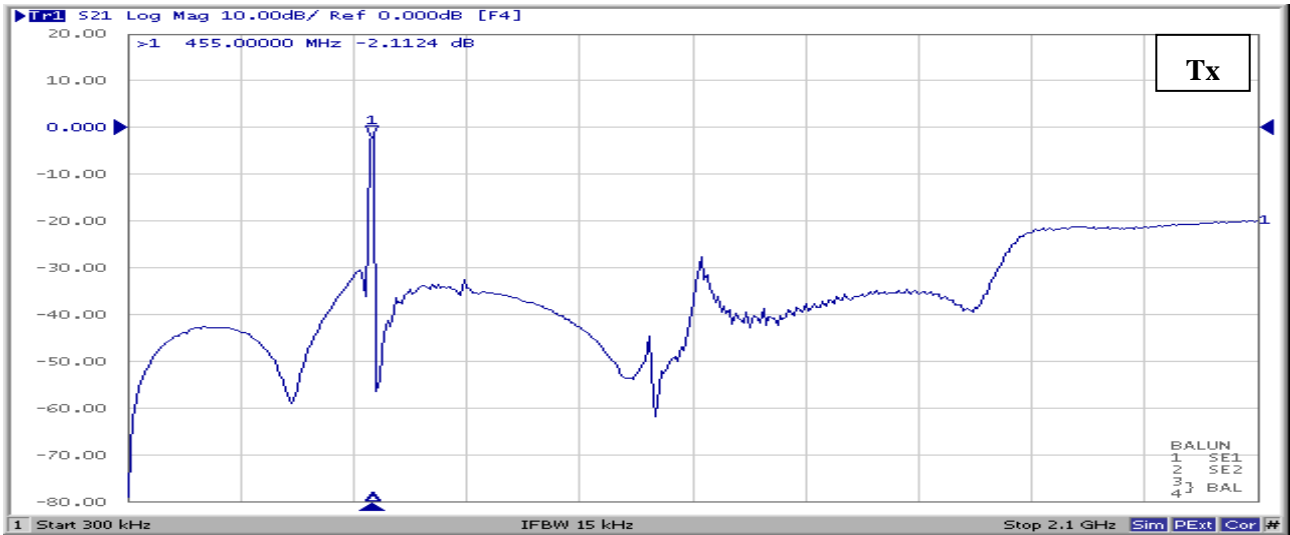


Return Loss





Wide Span





Amplitude Imbalance



Phase Imbalance

