



Total Solution Provider in Saw Device

SD452BK6

CDMA 450 Rx Balanced SAW DUPLEXER

For 452.5 MHz / 462.5 MHz

Revision 0: August 2011



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

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□ 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	450.0 ~ 455.0	dB	-	2.0	3.2
Absolute Attenuation	D.C ~ 440.0	dB	25	31	-
	460.0 ~ 465.0	dB	40	52	-
	465.0 ~ 1700.0	dB	15	22	-
	1700.0 ~ 2000.0	dB	10	20	-
VSWR	450.0 ~ 455.0	-	-	1.7	2.1



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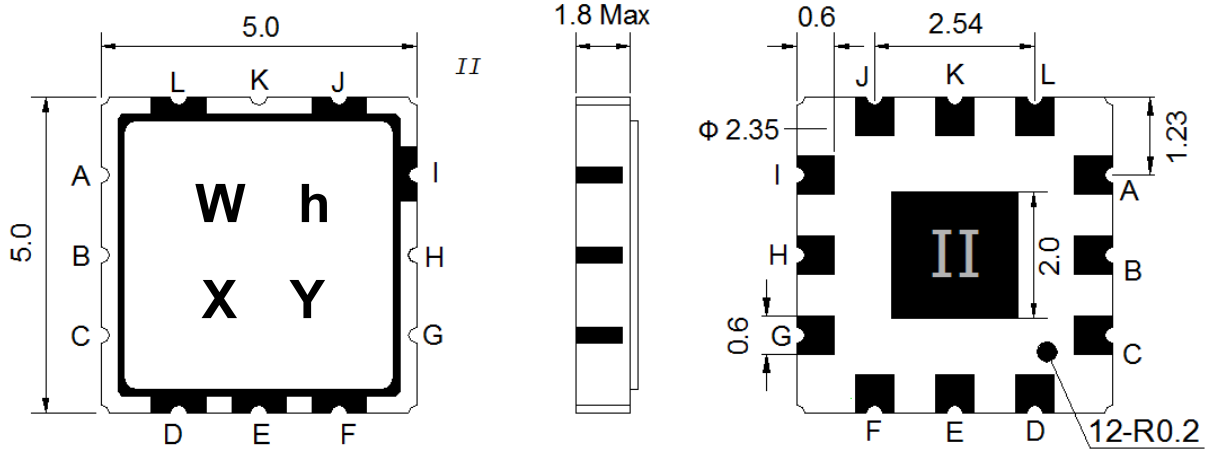
CDMA450 Rx Balanced SAW DUPLEXER FOR 452.5 MHz / 462.5MHz

Ant → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	460.0 ~ 465.0	dB	-	3.2	4.0
Amplitude Imbalance	460.0 ~ 465.0	dB	-1.0	-0.3/0.35	1.0
Phase Imbalance	460.0 ~ 465.0	deg	-10	4.5/7.0	10
Absolute Attenuation	D.C ~ 450.0	dB	40	50	-
	450.0 ~ 455.0	dB	45	50	-
	485.0 ~ 505.0	dB	35	40	-
	505.0 ~ 1200.0	dB	25	38	-
	1200.0 ~ 2000.0	dB	15	28	-
VSWR	460.0 ~ 465.0	-	-	1.6	2.2

Tx → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation	450.0 ~ 455.0	dB	52	60	-
	460.0 ~ 465.0	dB	52	70	-

Notes : (1) No Matching Network .

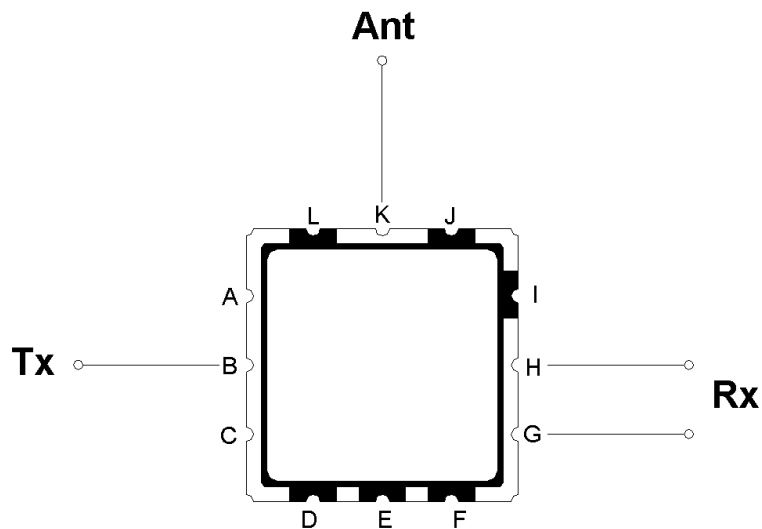
□ Package Dimensions



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

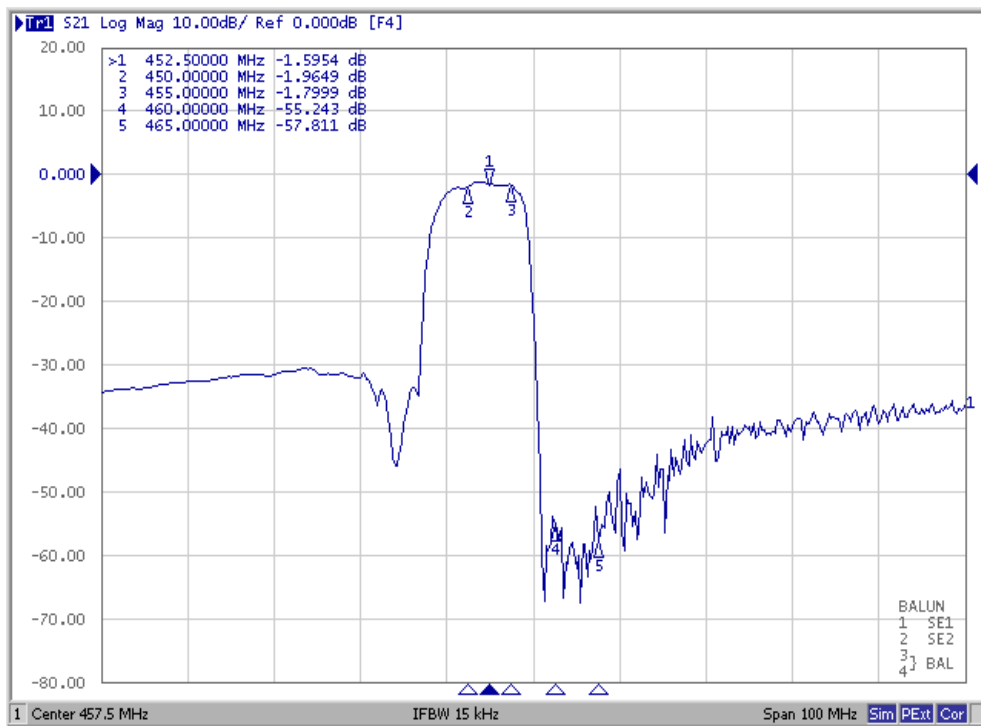
Pin Description	
A, C, D, E, F, I, J, L	Ground
K	Antenna
B	Tx
G, H	Rx Balanced

□ Testing Environment

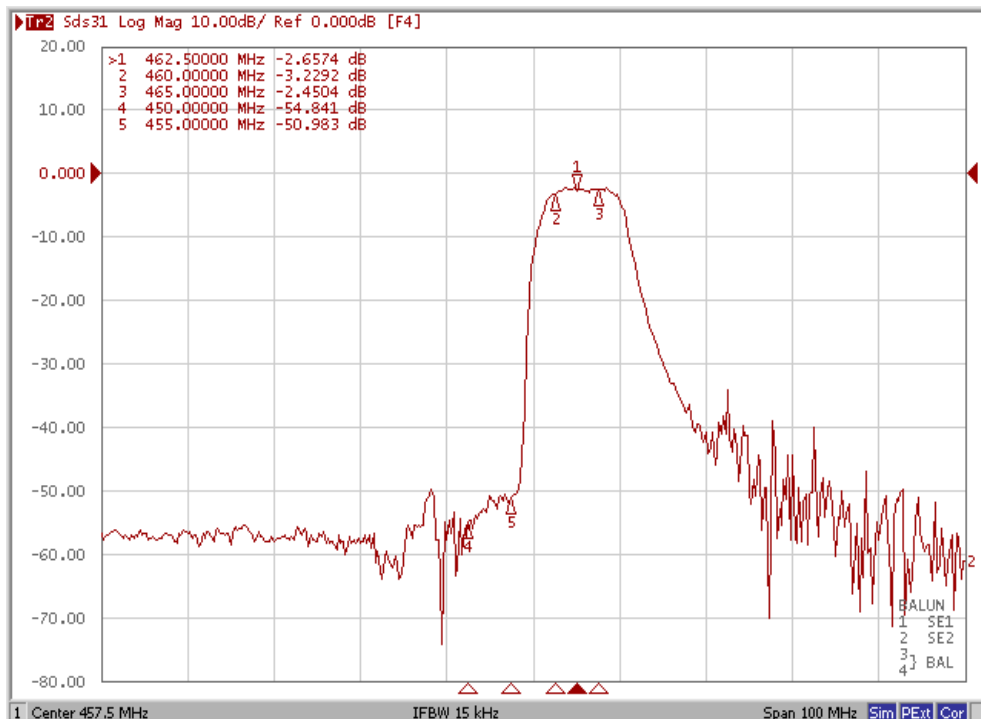


□ Frequency Characteristics

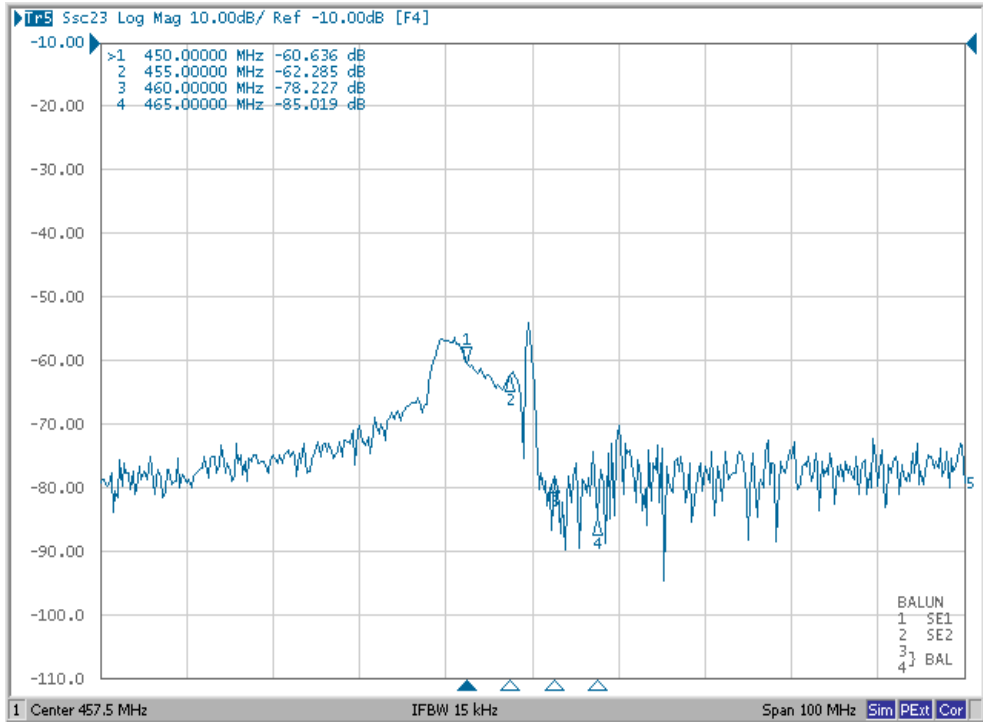
Tx to Ant



Ant to Rx

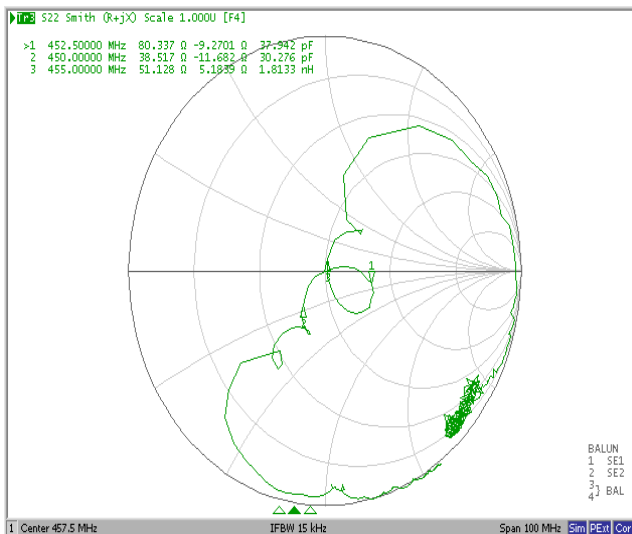


Isolation

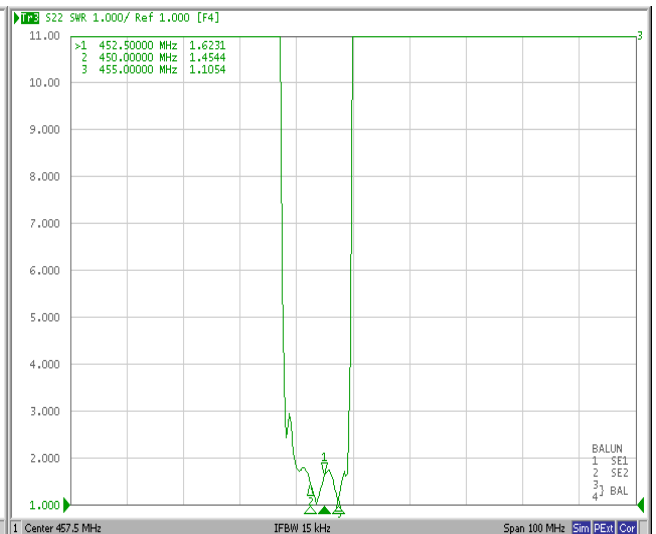


Tx Port

Smith Chart



VSWR





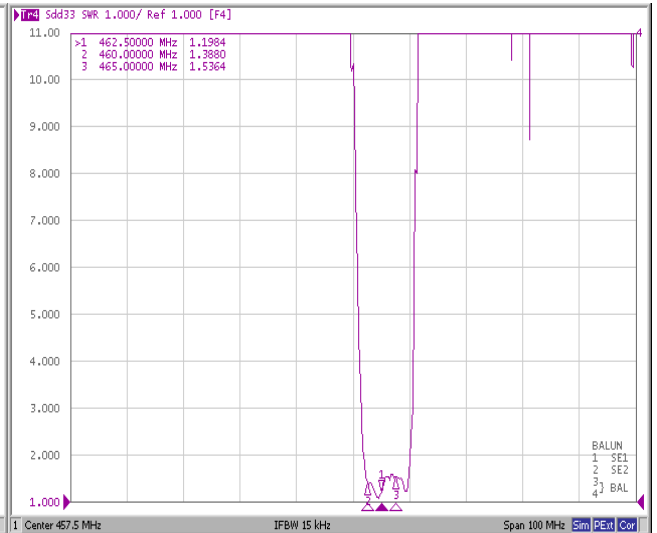
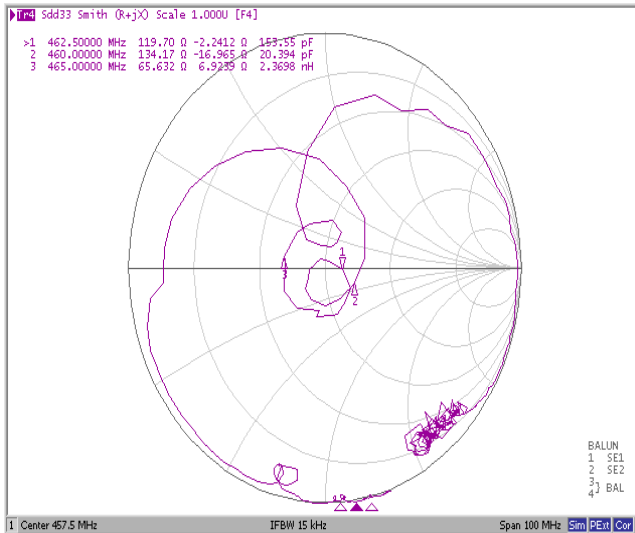
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Rx Port

Smith Chart

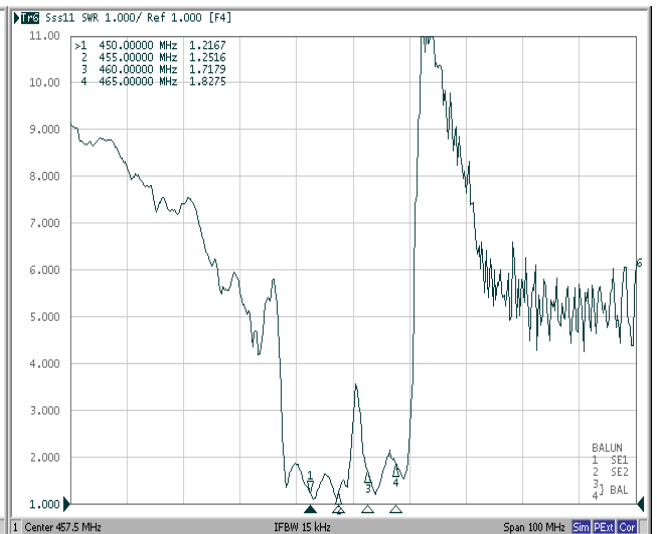
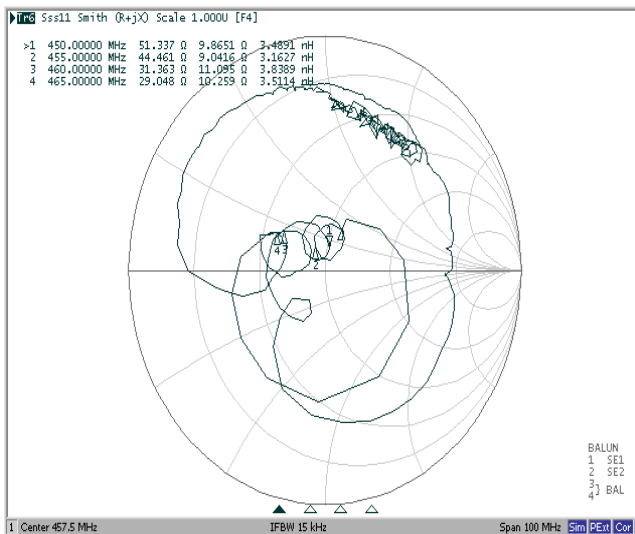
VSWR



Ant Port

Smith Chart

VSWR

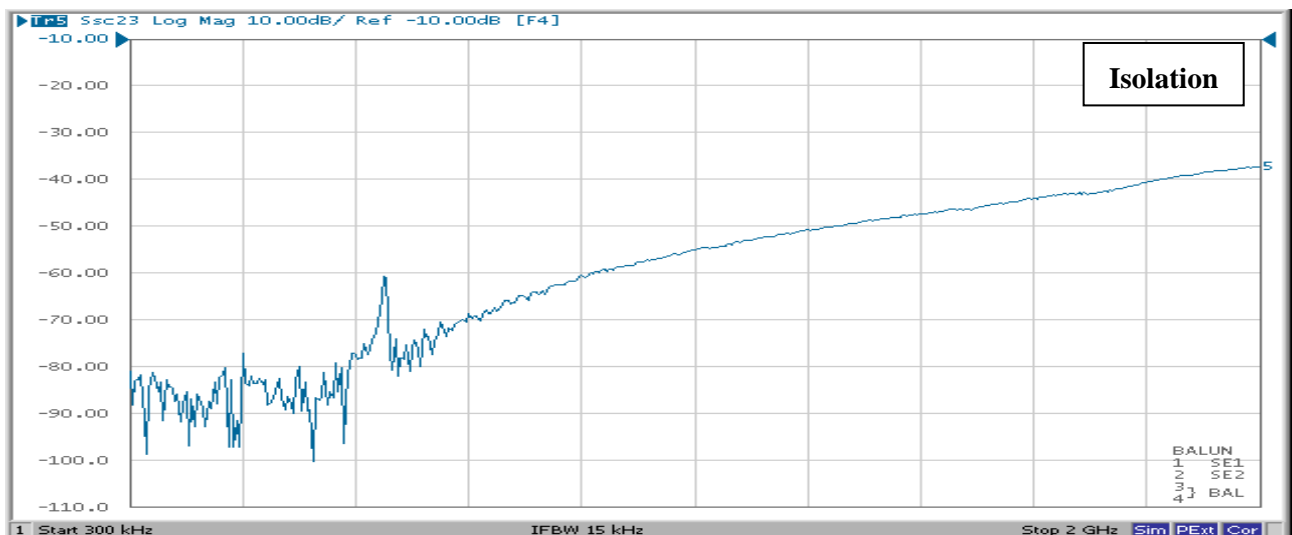
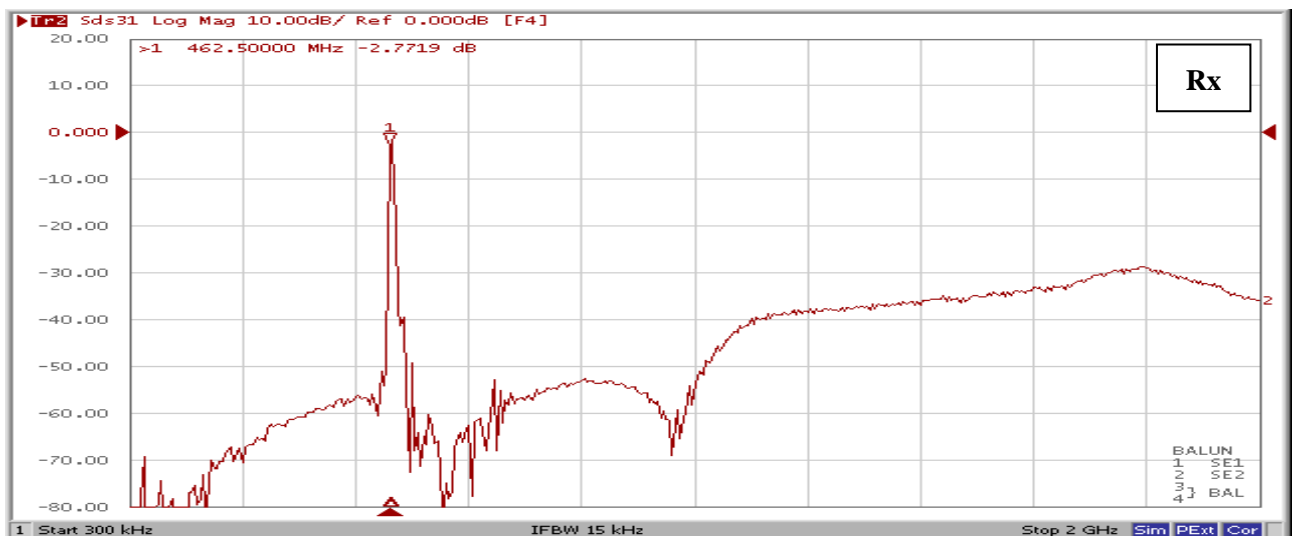
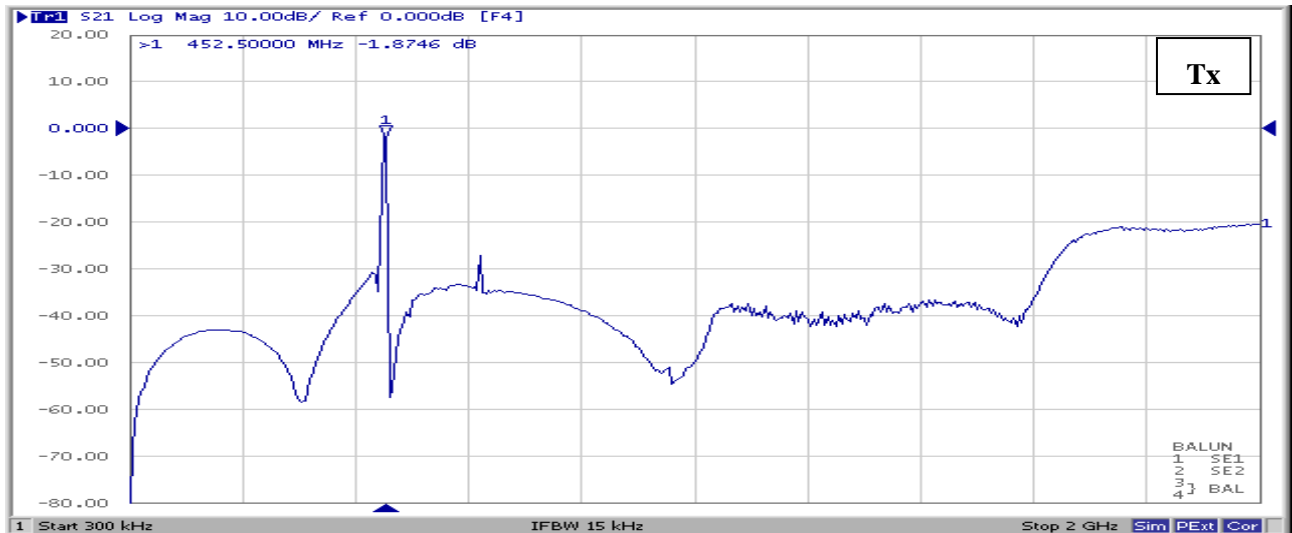




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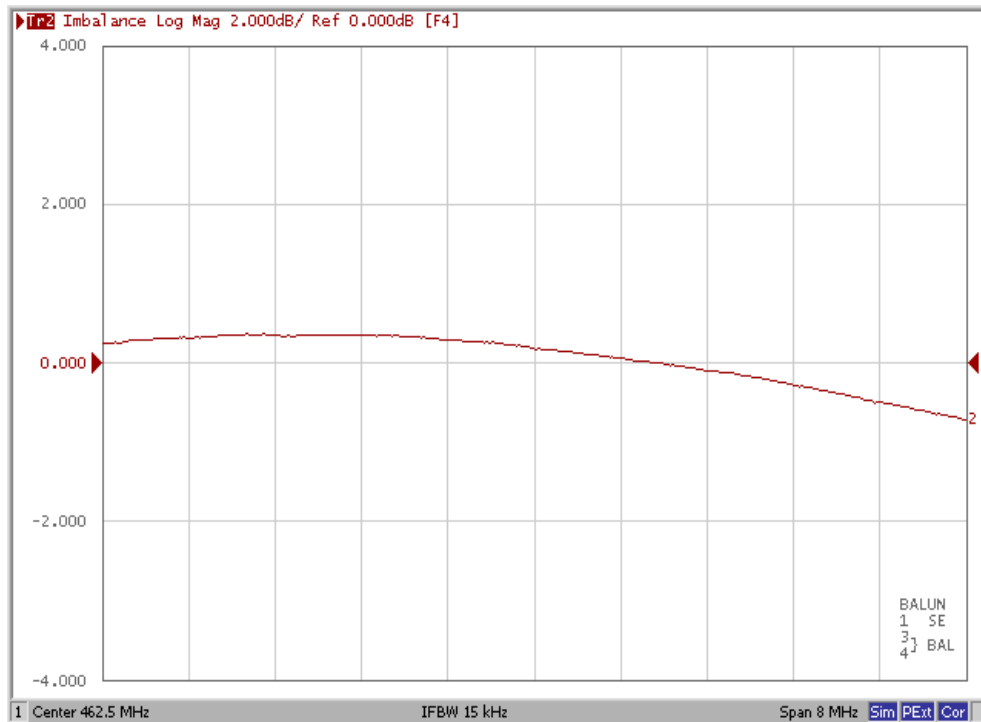
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Wide Span





Amplitude Imbalance



Phase Imbalance

