



Total Solution Provider in Saw Device

SD413AK2

CDMA450 D-Band, SAW Duplexer
Revision 1: December 2005



- 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	-	+80
Storage Temperature Range		-40	-	+85
Maximum DC Voltage	V	0		
Maximum Input Power	W	1.0 W > 50000 Hours, CW tone(Ta= +50°C)		
Source Impedance (single ended) ⁽¹⁾	Ω	50		
Load Impedance (single ended) ⁽¹⁾	Ω	50		
Package type & size		K2		
Length x Width	mm ²	-	5.0 x 5.0	-
Height	mm	-	-	1.8

Electrical Specification

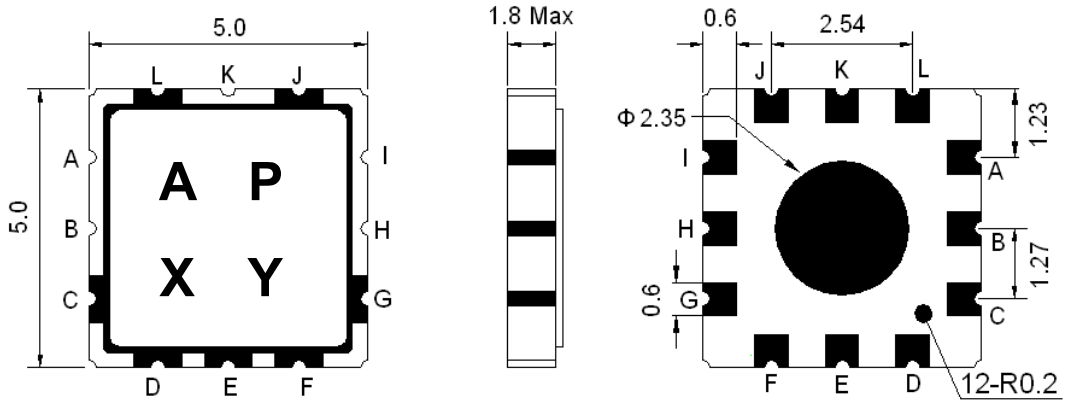
Tx → Ant		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	411.6 ~ 415.9	dB	-	2.5	2.8
VSWR	411.6 ~ 415.9	-	-	1.6	2.1
Absolute Attenuation	0.3 ~ 400.0	dB	23	26	-
	421.6 ~ 425.9	dB	30	50	-
	425.9 ~ 1700.0	dB	23	27	-
	1700.0 ~ 2000.0	dB	10	17	-

Ant → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	421.6 ~ 425.9	dB	-	3.2	4.3
VSWR	421.6 ~ 425.9	-	-	1.5	2.2
Absolute Attenuation	0.3 ~ 411.6	dB	20	24	-
	411.6 ~ 415.9	dB	33	51	-
	442.0 ~ 600.0	dB	20	27	-
	600.0 ~ 1200.0	dB	20	28	-
	1200.0 ~ 2000.0	dB	25	43	-

Tx → Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation	411.6 ~ 415.9	dB	32	50	-
	421.6 ~ 425.9	dB	35	55	-

Notes :

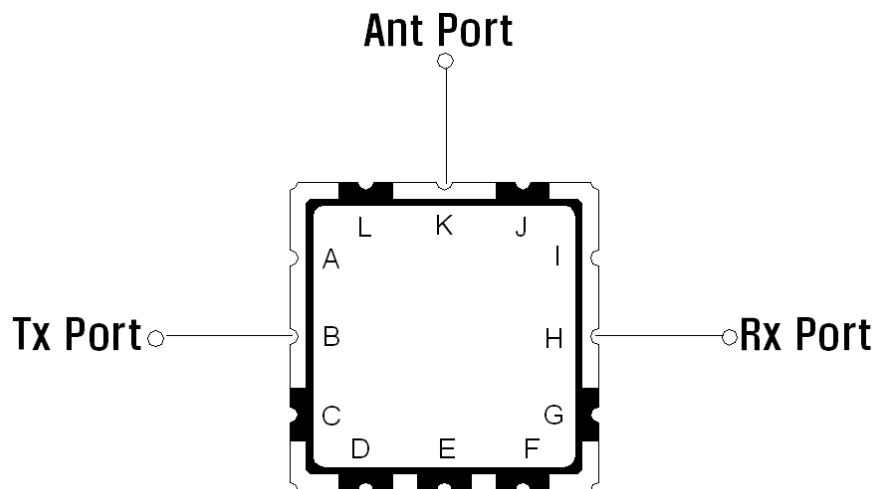
Package Dimensions



Marking Descriptions	
A	CDMA450 Application
P	Series Number
X	Date Code(Year)
Y	Date Code(Month)

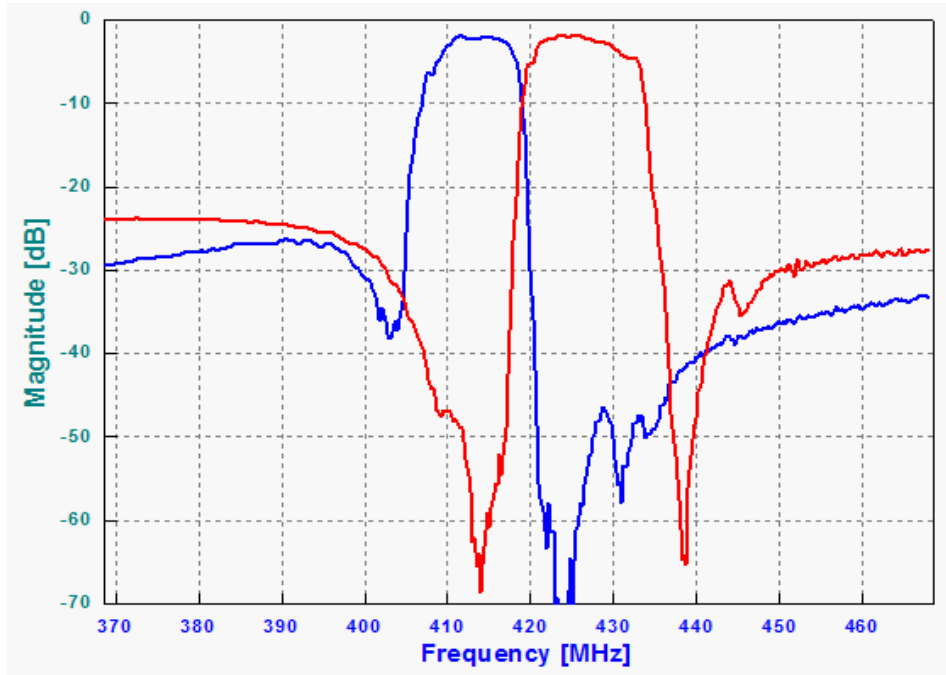
Pin Description	
A, C, D, E, F, G, I, J, L	Ground
H	Receiver
K	Antenna
B	Transmitter

Testing Environment

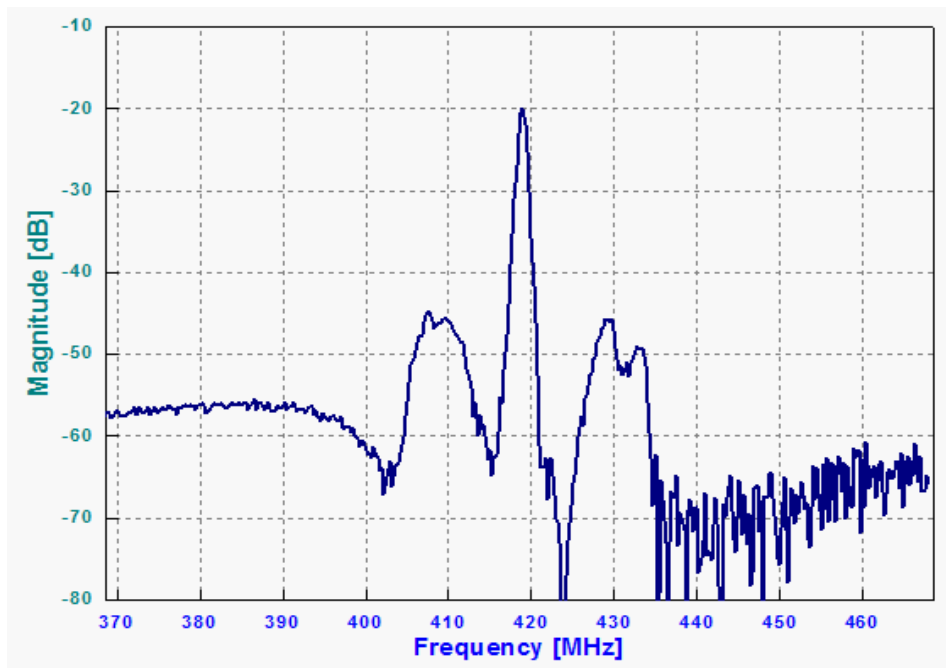


□ Frequency Characteristics

Tx to Ant, Ant to Rx



Tx to Rx Isolation

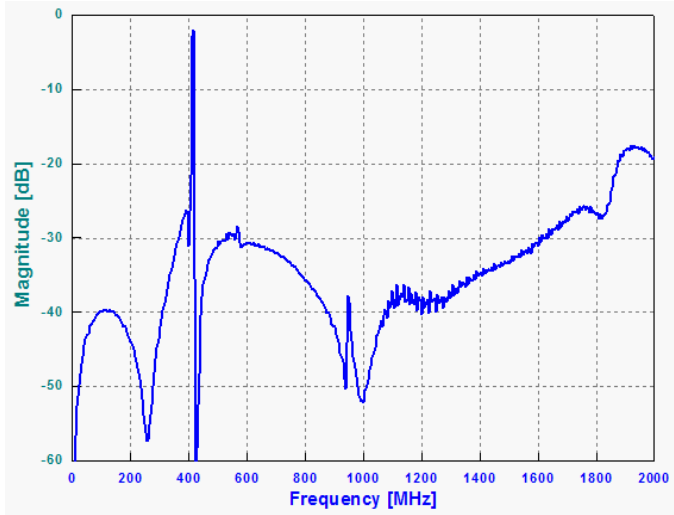




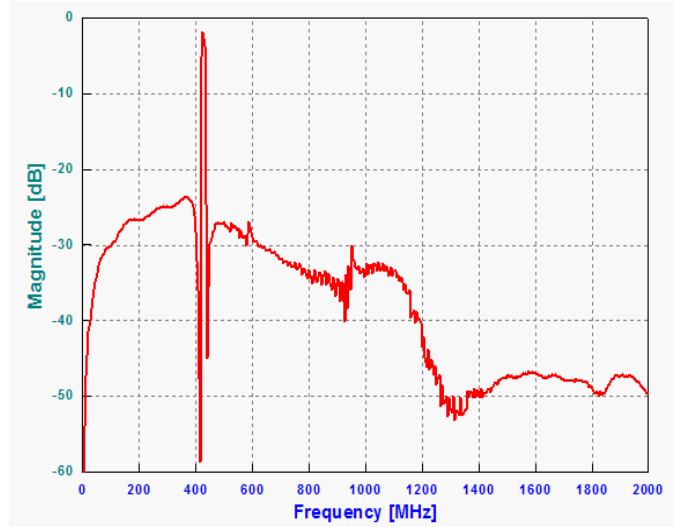
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Tx to Ant

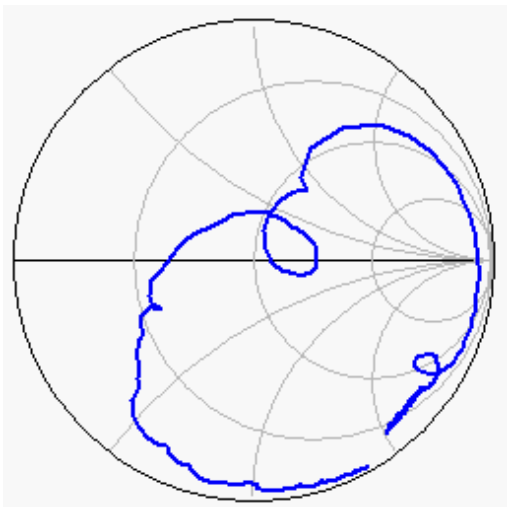


Ant to Rx

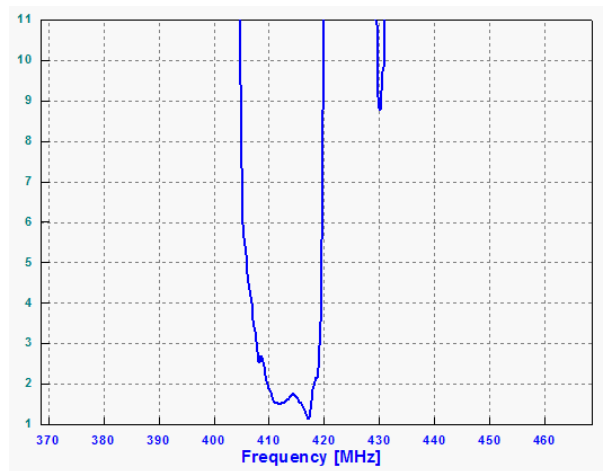


Tx Port

Smith Chart



VSWR

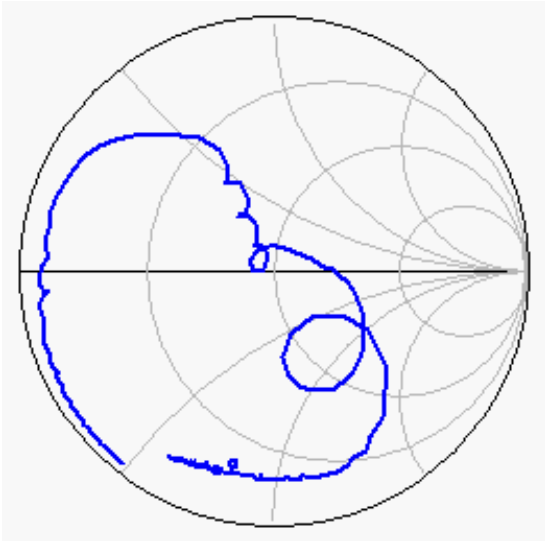


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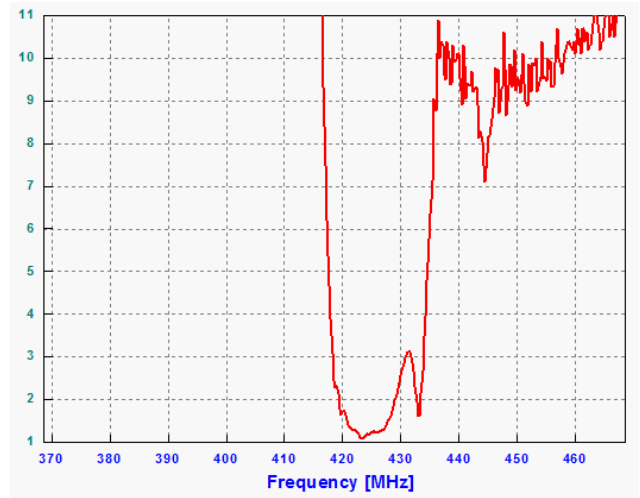
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Rx Port

Smith Chart

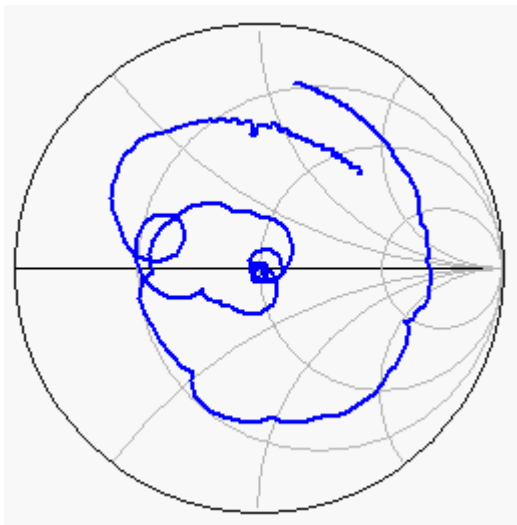


VSWR



Ant Port

Smith Chart



VSWR

