



*Total Solution Provider in Saw Device*

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# SD-253503-C43

BAW Duplexer for Band7  
Revision 0: March 2014



- Electrical Characteristics
  - Package Dimensions
  - Testing Environment
  - Frequency Characteristics
  - Foot print, Solder and Etc.
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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	32		
Antenna Impedance(single ended)	Ω	50		
Tx Impedance(single ended)	Ω	50		
Rx Impedance (single ended)	Ω	50		
Package type	C43			
Length x Width	mm <sup>2</sup>	2.0 x 1.6		
Height	mm	0.9		

### Electrical Specification

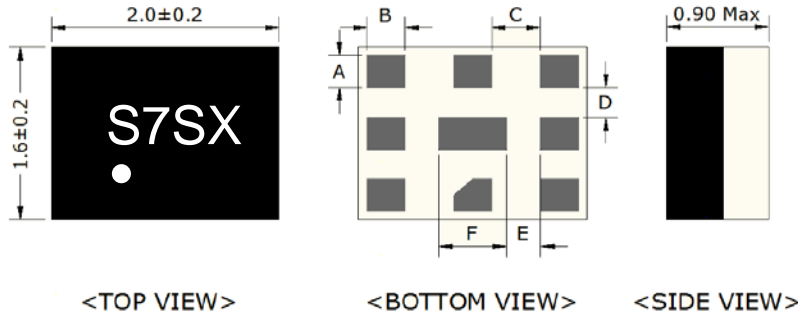
Tx to Ant		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	2500.0 ~ 2570.0	dB	-	2.5	3.0
Return Loss of Tx Port	2500.0 ~ 2570.0	dB	10.0	11.6	-
Return Loss of Ant Port	2500.0 ~ 2570.0	dB	10.0	11.0	-
Attenuation in Rx Band	2620.0 ~ 2690.0	dB	40.0	44.6	-
Attenuation in ISM band	2400.0 ~ 2480.0	dB	32.0	34.7	-
Attenuation in ISM band	2480.0 ~ 2483.0	dB	32.0	37.0	-



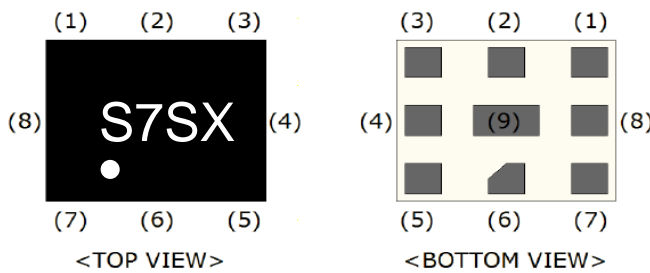
Ant to Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Insertion Loss	2620.0 ~ 2690.0	dB	-	2.5	3.0
Return Loss of Rx Port	2620.0 ~ 2690.0	dB	7.0	10.3	-
Return Loss of Ant Port	2620.0 ~ 2690.0	dB	7.0	8.6	-
Attenuation in Tx Band	2500.0 ~ 2570.0	dB	50.0	55.0	-

Tx to Rx		Specifications			
Parameters Description	Condition [MHz]	Unit	Minimum	Typical	Maximum
Isolation in Rx Band	2620.0 ~ 2690.0	dB	45.0	47.2	-
Isolation in Tx Band	2500.0 ~ 2570.0	dB	50.0	53.3	-

**Package Dimensions**



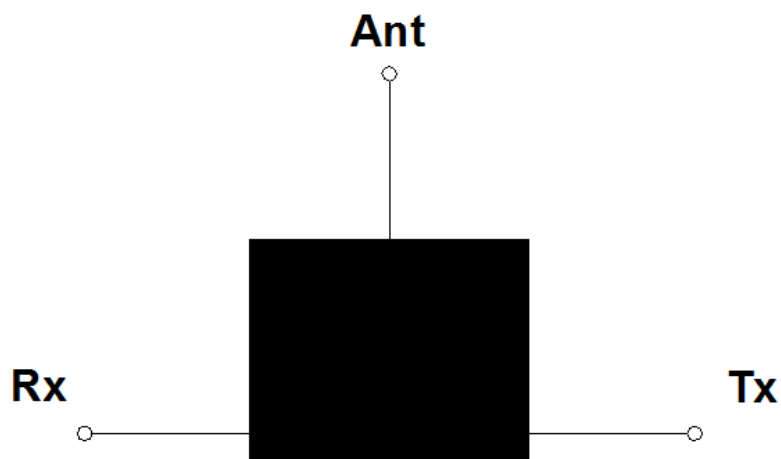
A	B	C	D	E	F	Thickness
0.30 ± 0.1	0.33 ± 0.1	0.43 ± 0.1	0.275 ± 0.1	0.295 ± 0.1	0.60 ± 0.1	0.90 MAX



Pin Description	
(1),(3),(4),(6),(8),(9)	Ground
(2)	Antenna
(5)	Tx
(7)	Rx

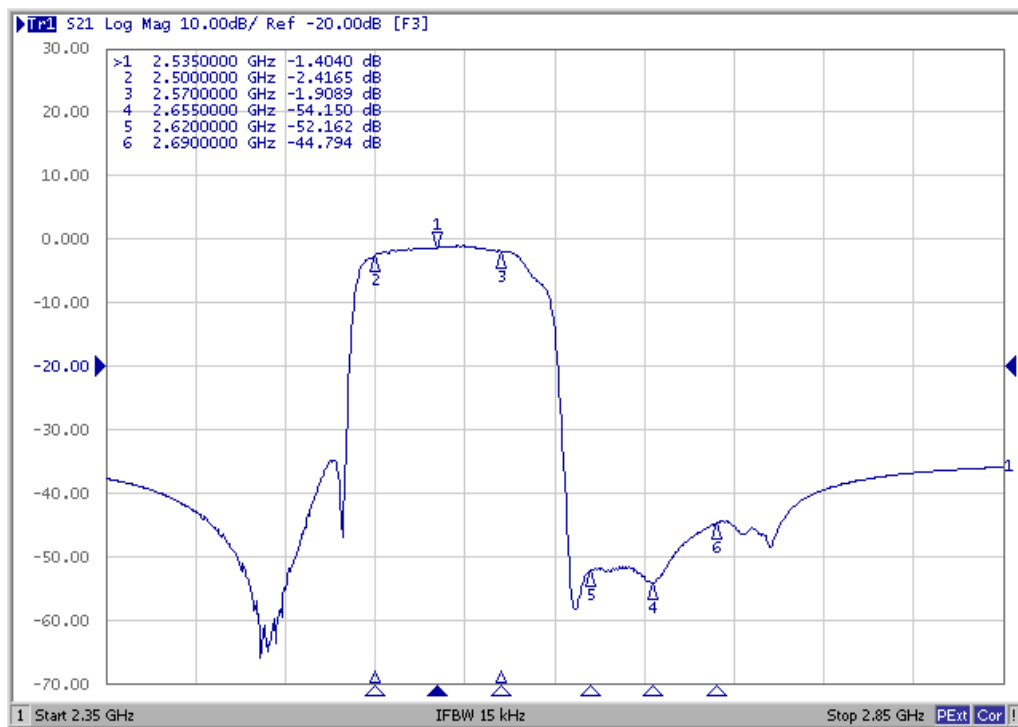
Marking Descriptions	
S	SAWNICS Duplexer
7	Band7 Application
B	Single ended Type
X	Date Code(Year+Month)

**Testing Environment**

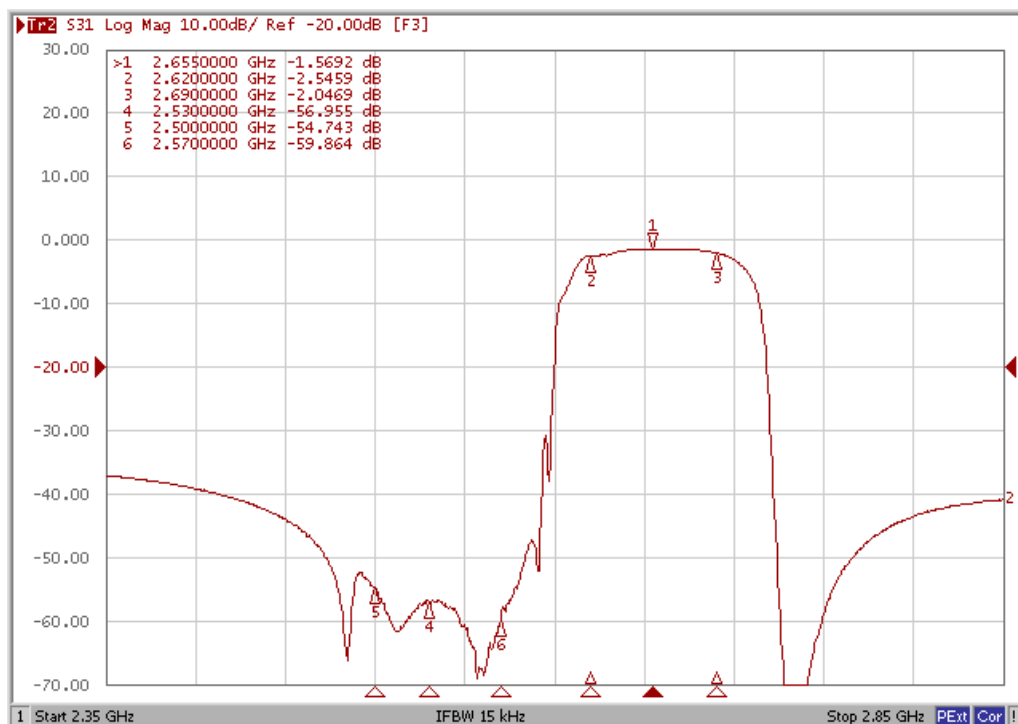


**□ Frequency Characteristics**

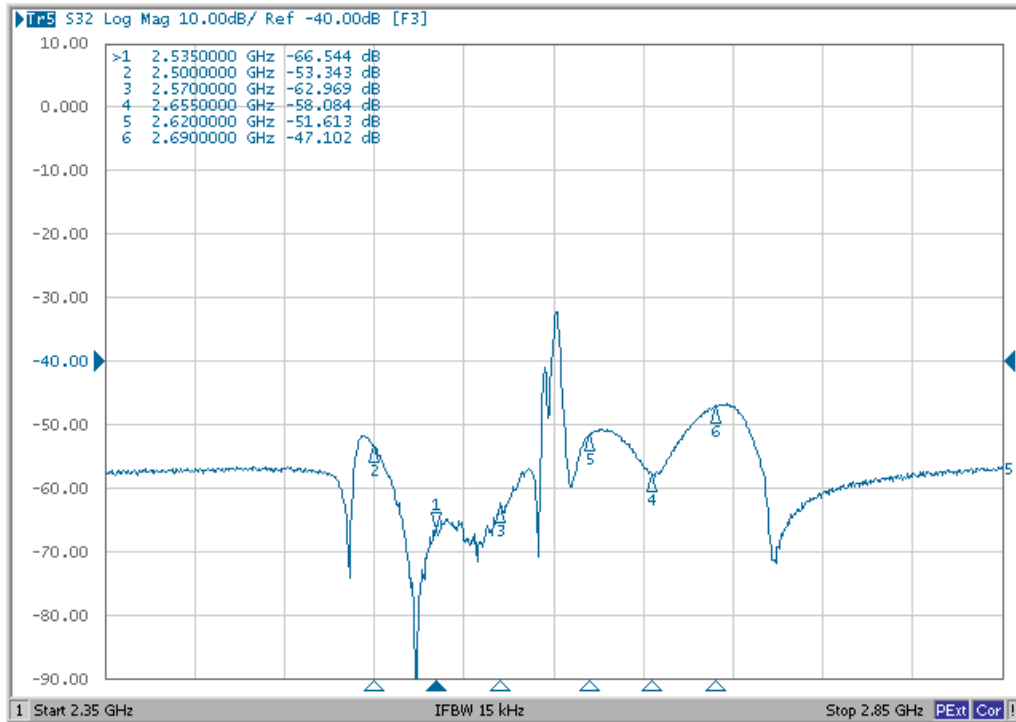
**Tx to Ant**



**Ant to Rx**

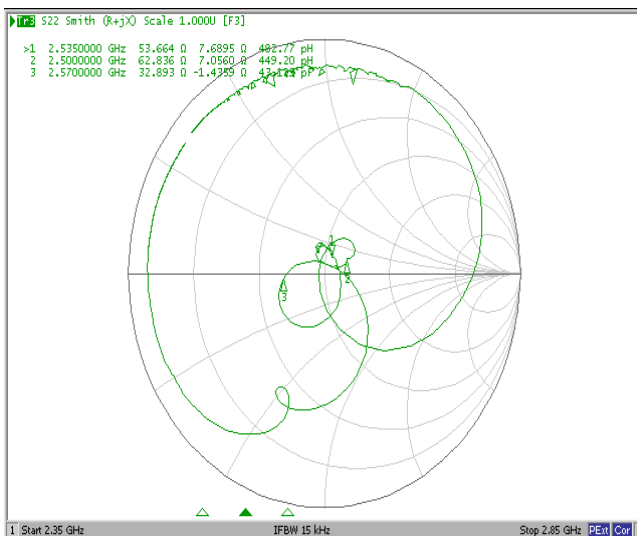


**Isolation**

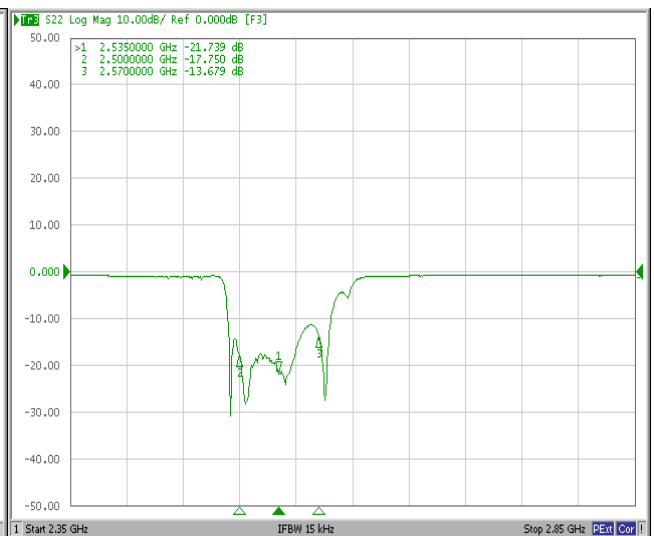


**Tx Port**

Smith Chart

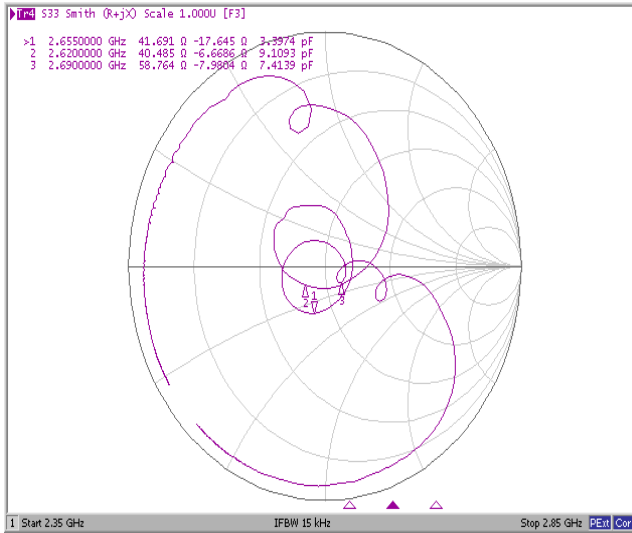


Return Loss

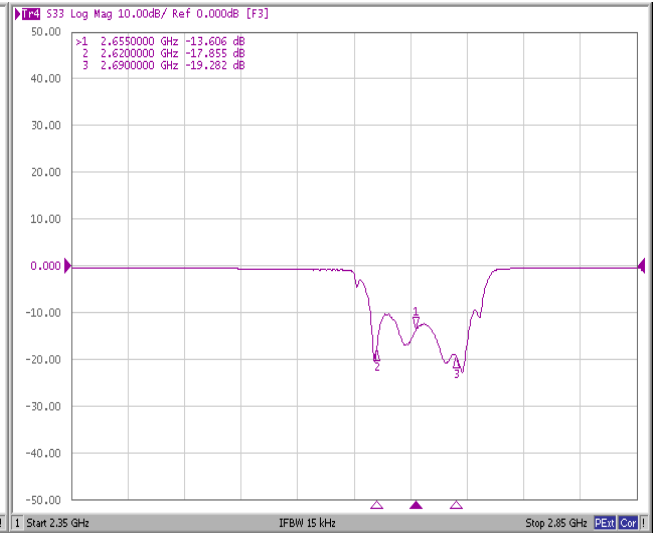


### Rx Port

Smith Chart

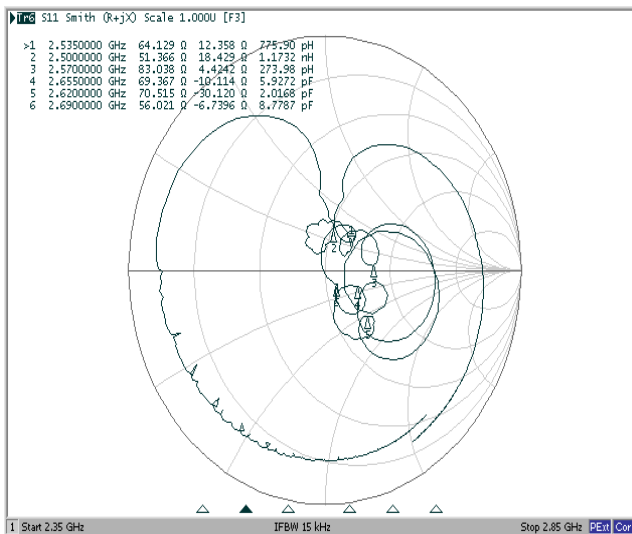


Return Loss

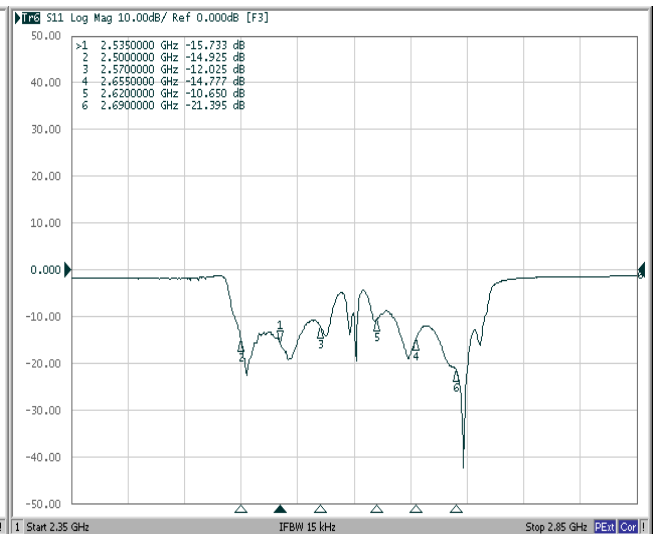


### Ant Port

Smith Chart



Return Loss



**□ Foot print, Solder and Etc.**

