



*Total Solution Provider in Saw Device*

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# SA18765AV

160MHz IF SAW Filter  
65.52 MHz Bandwidth  
Revision 0: 20. Nov. 2008



- 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	-	25	-
Storage Temperature Range	°C	-40	-	85
Maximum DC Voltage	V	-	-	10
Maximum Input Power	dBm	-	-	10
Source Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Load Impedance (single ended) <sup>(1)</sup>	Ω	-	50	-
Package type & size	V			
Length x Width	mm <sup>2</sup>	-	13.3 x 6.5	-
Height	mm	-	-	1.8

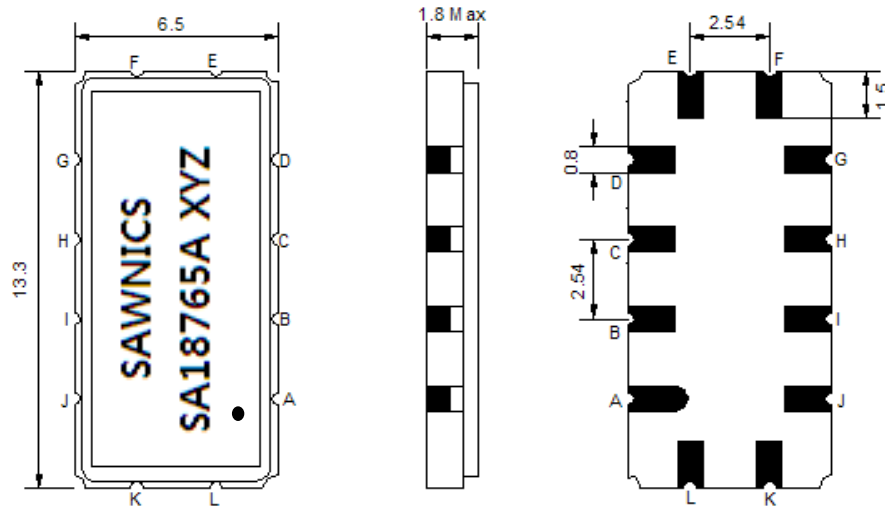
### Electrical Specification

Parameters Description	Unit	Minimum	Typical	Maximum
Center Frequency (Fo)	MHz	-	187.5	-
Insertion Loss at Fo	dB	-	28.50	31.00
Amplitude Ripple Variation(Fo±32.4MHz)	dB <sub>p-p</sub>	-	0.58	1.0
Group Delay Variation(Fo±32.4MHz)	nsec	-	13	35
Absolute Delay at Fo	µsec	-	0.90	-
Temperature Coefficient	ppm/°C	-	-72	-
Bandwidth at -1.0 dB	MHz	65.40	65.52	-
Bandwidth at -3.0 dB	MHz	-	66.68	-
Bandwidth at -40.0 dB	MHz	-	71.0	72.0
<b>Ultimate Rejection</b>				
10MHz ~ 147.5MHz	dB	48	50	-
227.5MHz ~ 540MHz	dB	48	50	-
540MHz~ 600MHz	dB	43	45	-

**Notes :** (1) With Matching Network (Ref. Testing Environment Circuit as shown below).

Those impedances could be modified with different impedance values and/or structures, if necessary.

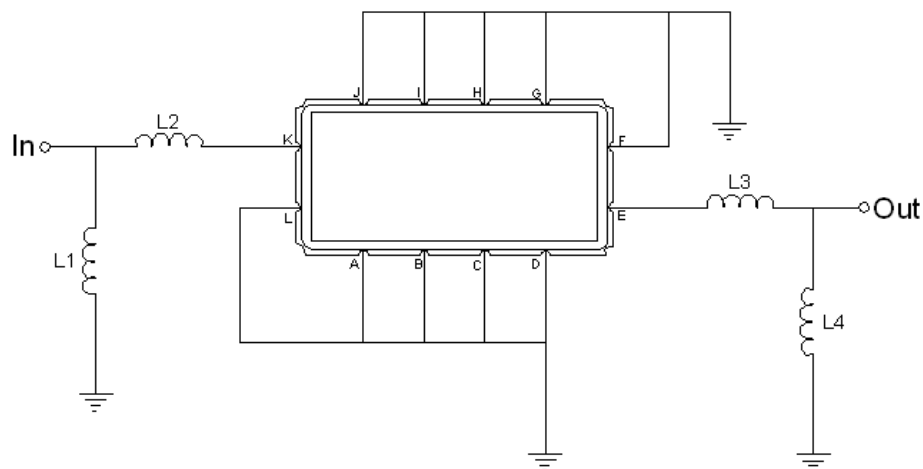
### Package Dimensions



- ① SAWNICS: Brand
- ② SA18765A: Model Name
- ③ X : Date Code (Year)
- ④ Y : Date Code (Month)
- ⑤ Z : Date Code (Date)
- : Index Dot

Pin Description	
A, B, C, D, F, G, H, I, J, L	Ground
K	Input
E	Output

### Testing Environment



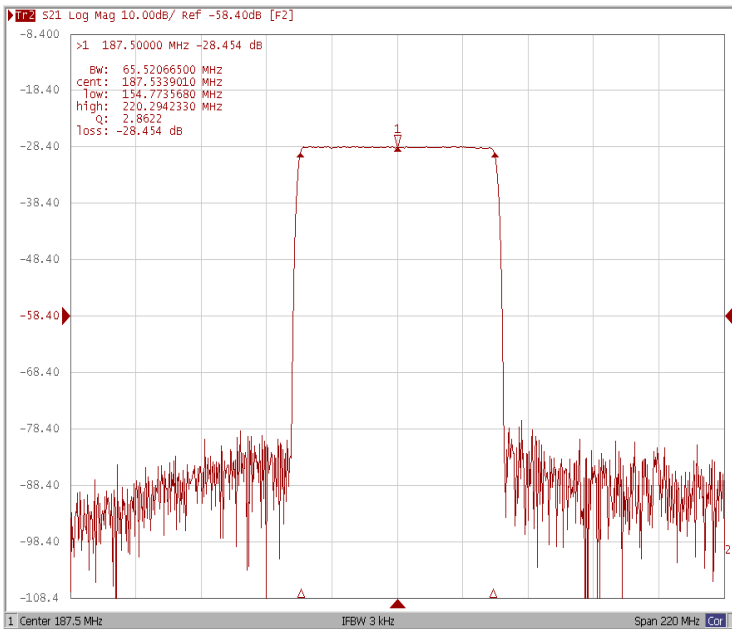
Test Fixture & Values	
Input	L1=56nH, L2=5.6nH
Output	L2=5.6nH, L4=56nH
Source/Load Impedance	50 Ω



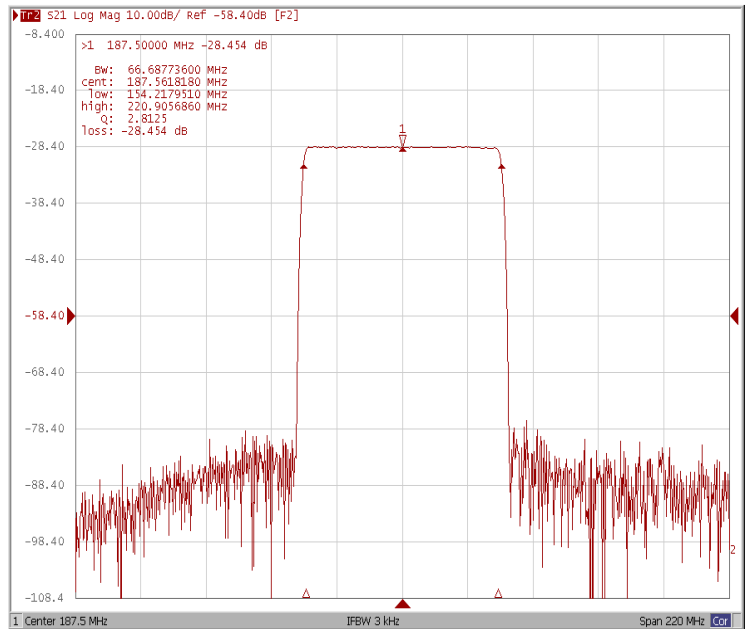
### Frequency Characteristics

#### Frequency Response

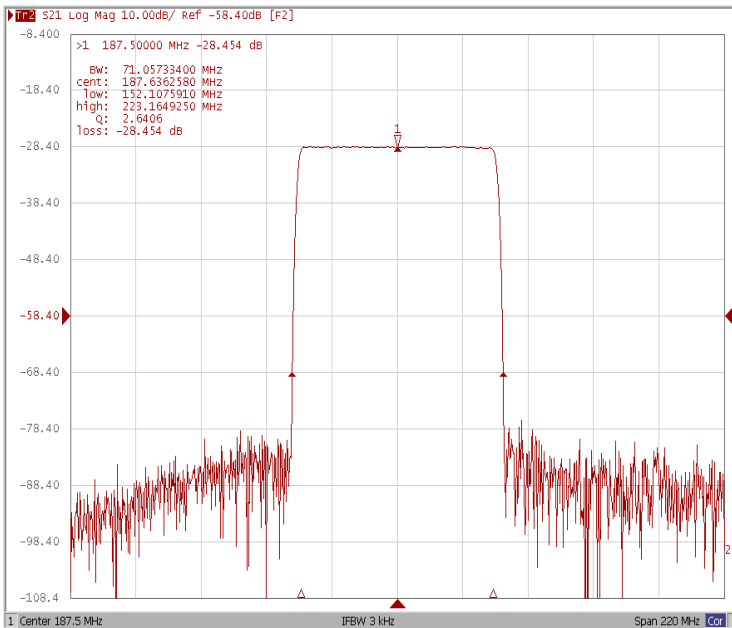
Bandwidth at -1.0 dB



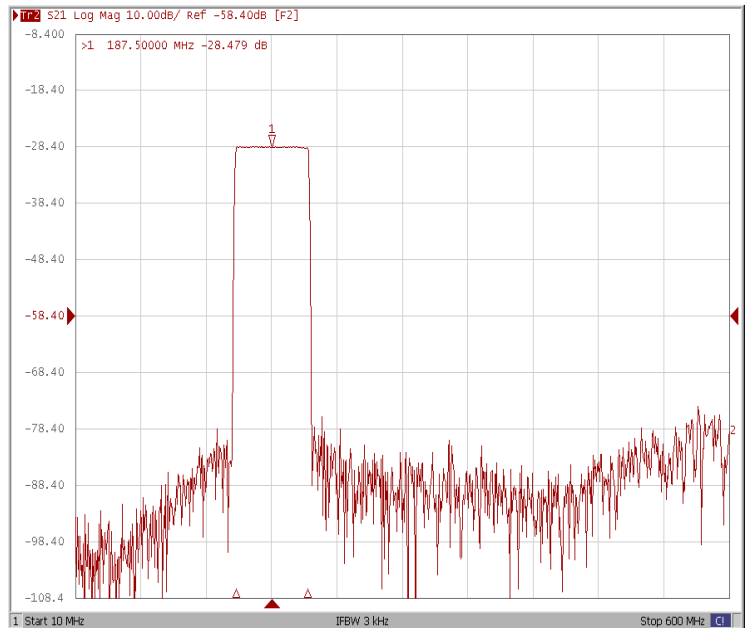
Bandwidth at -3.0 dB



Bandwidth at -40.0 dB



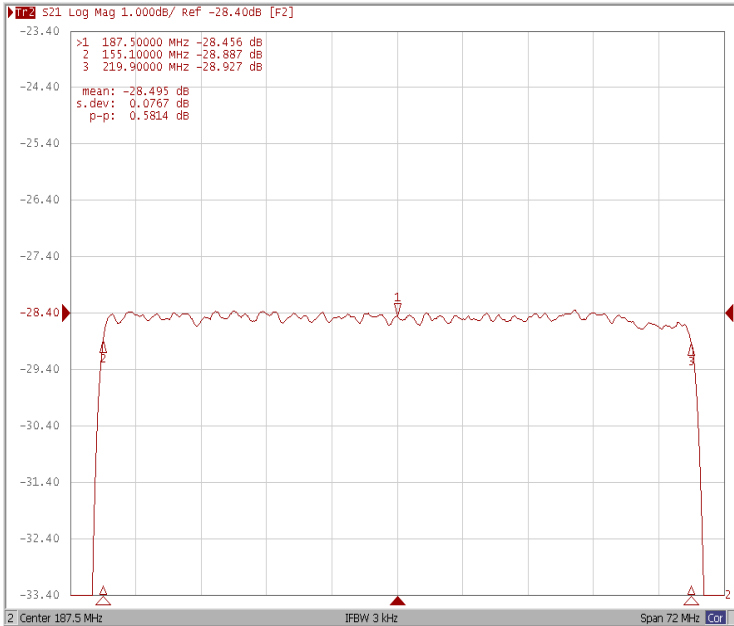
Wide Band



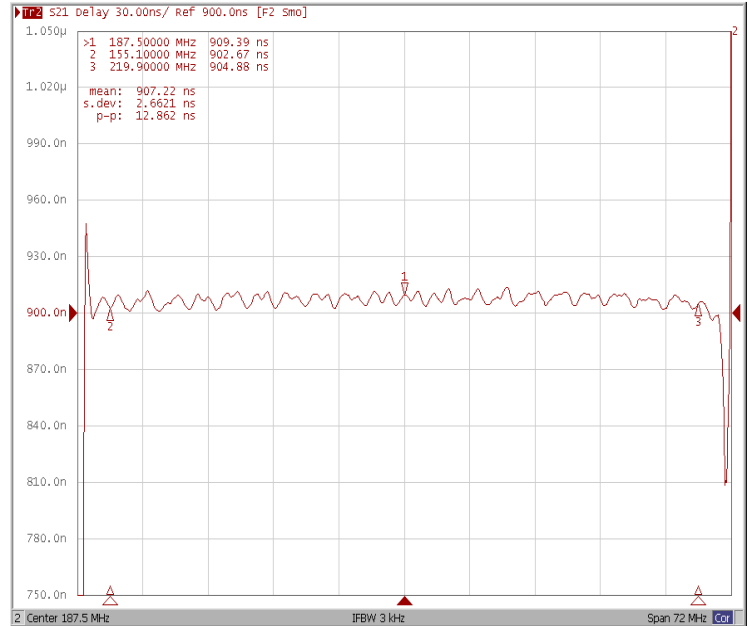


### Frequency Response

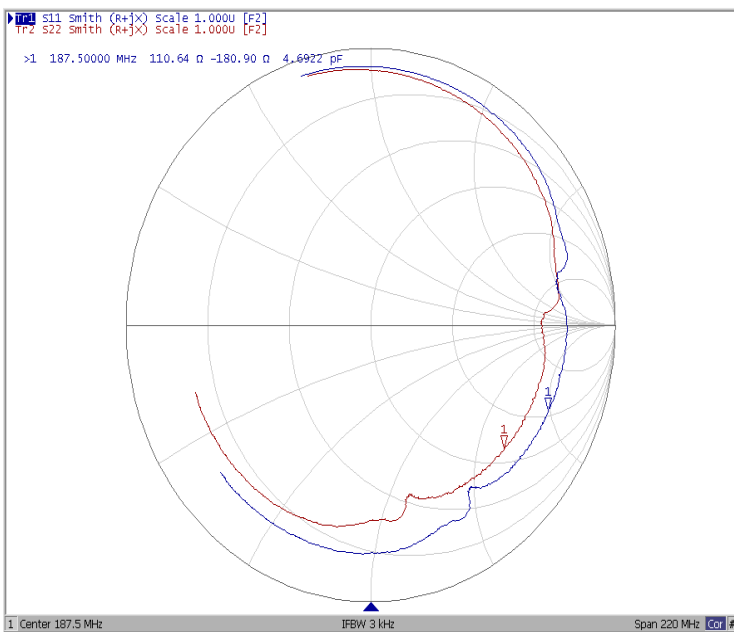
#### Ripple Variation Fo±32.4MHz



#### Group Delay Variation Fo±32.4MHz



#### Smith Chart



#### SWR

