(100kHz - 18GHz)

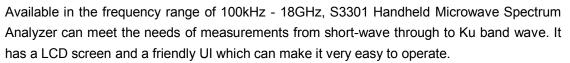
### **Key Features**

- One click measurement
- High measurement speed
- Standard LAN and USB interface
- Abundant measurement functions
- Supports both linear sweep and list sweep



### **Measurements**

- Occupied Bandwidth (OBW)
- Channel Power
- Spectrum Analysis
- Adjacent Channel Leakage Ratio (ACLR)



S3301 is internally built with a large-capacity flash memory and supports USB external memory where the field measurement curves can be stored for subsequent analysis, processing and storing for management.

S3301 Handheld Microwave Spectrum Analyzer is mainly used in development, repair and maintenance in various sectors of radar and communication equipment as well as in the spectrum monitoring and management department.





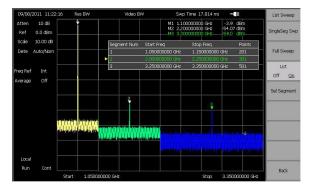


(100kHz - 18GHz)

### **Features To Boost Your Efficiency**

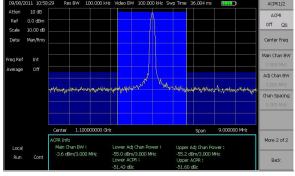
#### Support linear sweep and list sweep

The list sweep can help to easily realize the quick measurement of multiple frequency bands.



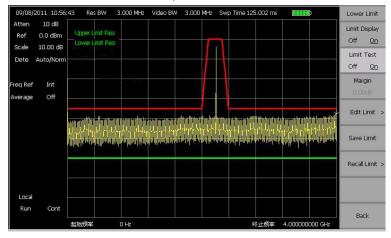
#### **One-click measurement**

The data of occupied bandwidth, channel power and adjacent channel power ratio (ACPR) can be obtained through one-click measurement.



### Convenient application of limit lines, support both upper and lower limit lines

Limit line can be regarded as a visual reference, as well as the judgment basis of PASS/FAIL. If the test result breaks the limit lines, the loudspeaker will make a "Di" sound to remind the operator.



### Powerful software tools

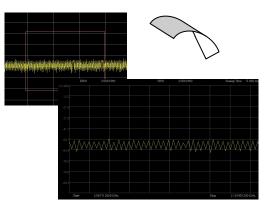
Through software tools, S3301 can edit antenna factors and limit lines, and realize remote control.



(100kHz - 18GHz)

- Provide function of marker setting and dragging, easy to read data
- Note
   Construction
   Construction

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   State
- The test traces can be magnified by drawing a rectangular window



### **Typical Applications**

### Broadband spectrum monitoring and interference

### Recognition

S3301 uses SAV89101X directional antenna to monitor spectrum and recognize illegal interference signals. The interference signals can do harm to the authorized users service, which usually leads to property loss or even damage to emergent communication service, thereby endangering public security.

### Field spectrum test

With advantages of wide frequency band, high-sensitivity measurement, high-capacity battery, and lightweight, S3301 can meet all requirements of field spectrum test.





(100kHz - 18GHz)

Frequency Range       100kHz - 18GHz         Nominal Frequency       10MHz         Aging Rate       ±1x10*/day, ±1x10*/year         Temperature stability       ±1x10*/day, ±1x10*/year         Frequency Readout Accuracy       ±(Frequency readout x Frequency reference error +5% x Frequency span+25% x Resolution bandwidth)         Frequency Span       10Hz-18GHz or 0Hz         Bandwidth         Resolution Bandwidth       1Hz - 3MHz (step by 1, 3, 10)         Video Bandwidth       1Hz - 3MHz (step by 1, 3, 10)         Video Bandwidth         Other Span         Carrier of 1GHz, 1kHz offset         c-80dBc/Hz         Carrier of 1GHz, 1kHz offset         C-30dBc/Hz         Carrier of 1GHz, 1kHz offset         Displayed Average Noise Level (DANL)	Frequency		
Aging Rate±1x10*/day, ±1x10*/yearTemperature stability±1x10*/(20~30°C); ±3.5x10* (0~50°C)Frequency Readout Accuracy±(Frequency readout x Frequency reference error +5% x Frequency span+25% x Resolution bandwidth)Frequency Span10Hz~18GHz or 0HzBandwidthResolution Bandwidth1Hz - 3MHz (step by 1, 3, 10)Video Bandwidth1Hz - 3MHz (step by 1, 3, 10)Video Bandwidth1Hz - 3MHz (step by 1, 3, 10)Spectral Purity (Phase Noise)Carrier of 1GHz, 1kHz offset<-80dBc/Hz	Frequency Range	100kHz - 18GHz	
Aging Rate±1x10*/day, ±1x10*/yearTemperature stability±1x10*/(20~30°C); ±3.5x10* (0~50°C)Frequency Readout Accuracy±(Frequency readout x Frequency reference error +5% x Frequency span+25% x Resolution bandwidth)Frequency Span10Hz~18GHz or 0HzBandwidthResolution Bandwidth1Hz - 3MHz (step by 1, 3, 10)Video Bandwidth1Hz - 3MHz (step by 1, 3, 10)Video Bandwidth1Hz - 3MHz (step by 1, 3, 10)Spectral Purity (Phase Noise)Carrier of 1GHz, 1kHz offset<-80dBc/Hz	Nominal Frequency	10MHz	
Frequency Readout Accuracy       ±(Frequency readout x Frequency reference error +5% x Frequency span+25% x Resolution bandwidth)         Frequency Span       10Hz~18GHz or 0Hz         Bardwidth         Resolution Bandwidth         1Hz - 3MHz (step by 1, 3, 10)         Video Bandwidth         1Hz - 3MHz (step by 1, 3, 10)         Video Bandwidth         1Hz - 3MHz (step by 1, 3, 10)         Spectral Purity (Phase Noise)         Carrier of 1GHz, 1kHz offset         Carrier of 1GHz, 10kHz, 20kHz, 30kHz offset         Carrier of 1GHz, 10kHz, 0fset         Ca	Aging Rate	±1x10 <sup>-8</sup> /day, ±1x10 <sup>-6</sup> /year	
Frequency Readout Accuracy+5% x Frequency span+25% x Resolution bandwidth)Frequency Span10Hz~18GHz or 0HzBesolution Bandwidth1Hz - 3MHz (step by 1, 3, 10)Video Bandwidth1Hz - 3MHz (step by 1, 3, 10)Spectral Purty (Phase Noise)Carrier of 1GHz, 1kHz offsetCarrier of 1GHz, 10kHz, 20kHz, 30kHz offsetColspan="2">Carrier of 1GHz, 10kHz, 20kHz, 30kHz offsetCarrier of 1GHz, 1kHz offsetCarrier of 1GHz, 1kHz offset <td< td=""><td>Temperature stability</td><td>±1x10<sup>-6</sup> (20~30°C); ±3.5x10<sup>-6</sup> (0~50°C)</td></td<>	Temperature stability	±1x10 <sup>-6</sup> (20~30°C); ±3.5x10 <sup>-6</sup> (0~50°C)	
+5% x Frequency span+25% x Resolution bandwidth)Frequency Span10Hz~18GHz or 0HzInternational Colspan="2">International Colspan="2">International Colspan="2">International Colspan="2">International Colspan="2"Contract Colspan="2"Resolution Bandwidth1Hz - 3MHz (step by 1, 3, 10)View Colspan="2"View Colspan="2"Spectral View View Roise)Carrier of 1GHz, 1kHz offset<-80dBc/HzCarrier of 1GHz, 10kHz, 20kHz, 30kHz offset<-95dBc/HzCarrier of 1GHz, 10kHz offset<-95dBc/HzColspan="2">Colspan="2">Carrier of 1GHz, 10kHz offset<-95dBc/HzColspan="2">Colspan="2">Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="2"Colspan="		±(Frequency readout x Frequency reference error	
Bardwidth         Resolution Bandwidth       1Hz - 3MHz (step by 1, 3, 10)         Video Bandwidth       1Hz - 3MHz (step by 1, 3, 10)         Spectral Purty (Phase Noise)         Carrier of 1GHz, 1kHz offset         carrier of 1GHz, 10kHz, 20kHz, 30kHz offset         Carrier of 1GHz, 10kHz, 20kHz, 30kHz offset         Carrier of 1GHz, 10kHz, 20kHz, 30kHz offset         Carrier of 1GHz, 10kHz offset	Frequency Readout Accuracy	+5% x Frequency span+25% x Resolution bandwidth)	
Resolution Bandwidth1Hz - 3MHz (step by 1, 3, 10)Video Bandwidth1Hz - 3MHz (step by 1, 3, 10)Spectral Purity (Phase Noise)Carrier of 1GHz, 1kHz offset <abd></abd> Carrier of 1GHz, 10kHz, 20kHz, 30kHz offsetCarrier of 1GHz, 10kHz, offsetCarrier of 1GHz, 10kHz offsetCarrier of 1GHz, 10kHz offsetCarrier of 1GHz, 10kHz offsetCarrier of 1GHz, 10kHz, offsetCarrier of 1GHz, 10kHz, 00kHz offsetObject colspan="2">Carrier of 1GHz, 10kHz, 00kHz offsetColspan="2">Carrier of 00kHz offset <td colspan<="" td=""><td>Frequency Span</td><td>10Hz~18GHz or 0Hz</td></td>	<td>Frequency Span</td> <td>10Hz~18GHz or 0Hz</td>	Frequency Span	10Hz~18GHz or 0Hz
Video Bandwidth1Hz - 3MHz (step by 1, 3, 10)Spectral Purity (Phase Noise)Carrier of 1GHz, 1kHz offset<-80dBc/Hz	Ba	ndwidth	
Spectral Purity (Phase Noise)Carrier of 1GHz, 1kHz offset<-80dBc/Hz	Resolution Bandwidth	1Hz - 3MHz (step by 1, 3, 10)	
Carrier of 1GHz, 1kHz offset<-80dBc/HzCarrier of 1GHz, 10kHz, 20kHz, 30kHz offset<-93dBc/Hz	<td>Video Bandwidth</td> <td>1Hz - 3MHz (step by 1, 3, 10)</td>	Video Bandwidth	1Hz - 3MHz (step by 1, 3, 10)
Carrier of 1GHz, 10kHz, 20kHz, 30kHz offset<-93dBc/HzCarrier of 1GHz, 10kHz offset<-95dBc/Hz	Spectral Purity (Phase Noise)		
Carrier of 1GHz, 100kHz offset<-95dBc/HzCarrier of 1GHz, 1MHz offset<-103dBc/Hz	Carrier of 1GHz, 1kHz offset	<-80dBc/Hz	
Carrier of 1GHz, 1MHz offset<-103dBc/HzResidential Response10MHz -18GHz, the preamplifier is off<-80dBm	Carrier of 1GHz, 10kHz, 20kHz, 30kHz offset	<-93dBc/Hz	
Residential Response10MHz -18GHz, the preamplifier is off<-80dBm	Carrier of 1GHz, 100kHz offset	<-95dBc/Hz	
10MHz -18GHz, the preamplifier is off<-80dBm10MHz - 4GHz, the preamplifier is on<-95dBm	Carrier of 1GHz, 1MHz offset	<-103dBc/Hz	
10MHz - 4GHz, the preamplifier is on<-95dBmDisplayed Average Noise Level (DANL)10MHz - 4GHz, the preamplifier is on≤-153dBm10MHz - 8GHz, the preamplifier is off≤-133dBm8GHz - 18GHz≤-127dBmSecond-order Harmonic Distortion10MHz - 4GHz<-50dBc	Residential Response		
10MHz - 4GHz, the preamplifier is on≤-153dBm10MHz - 8GHz, the preamplifier is off≤-133dBm8GHz - 18GHz≤-127dBmSecond-order Harmonic Distortion10MHz - 4GHz<-50dBc	10MHz -18GHz, the preamplifier is off	<-80dBm	
10MHz - 4GHz, the preamplifier is on≤-153dBm10MHz - 8GHz, the preamplifier is off≤-133dBm8GHz - 18GHz≤-127dBmSecond-order Harmonic Distortion10MHz - 4GHz<-50dBc	10MHz - 4GHz, the preamplifier is on	<-95dBm	
10MHz - 8GHz, the preamplifier is off≤-133dBm8GHz - 18GHz≤-127dBmSecond-order Harmonic Distortion10MHz - 4GHz<-50dBc			
8GHz - 18GHz≤-127dBmSecond-order Harmonic Distortion10MHz - 4GHz<-50dBc	10MHz - 4GHz, the preamplifier is on	≤-153dBm	
Second-order Harmonic Distortion10MHz - 4GHz<-50dBc	10MHz - 8GHz, the preamplifier is off	≤-133dBm	
10MHz - 4GHz<-50dBc4GHz - 18GHz<-58dBc	8GHz - 18GHz	≤-127dBm	
4GHz - 18GHz<-58dBcSweep TimeAt zero-span1ms - 100sSpan≥1kHz100ms - 100sInput Port Voltage SWR50MHz - 13GHz, typical<1.8:1	Second-order Harmonic Distortion		
Sweep TimeAt zero-span1ms - 100sSpan≥1kHz100ms - 100sInput Port Voltage SWR50MHz - 13GHz, typical<1.8:1	10MHz - 4GHz	<-50dBc	
At zero-span1ms - 100sSpan≥1kHz100ms - 100sInput Port Voltage SWR50MHz - 13GHz, typical<1.8:1	4GHz - 18GHz	<-58dBc	
Span≥1kHz         100ms - 100s           Input Port Voltage SWR           50MHz - 13GHz, typical         <1.8:1	Sweep Time		
Input Port Voltage SWR         50MHz - 13GHz, typical       <1.8:1	At zero-span	1ms - 100s	
50MHz - 13GHz, typical<1.8:113GHz - 18GHz, typical<2.0:1	Span≥1kHz	100ms - 100s	
13GHz - 18GHz, typical<2.0:1Overall-level Uncertainty±2.7dB (20°C ~30°C, preheated for 30mins)Input Attenuation Range0 - 30dB, step by 10dB	Input Port Voltage SWR		
Overall-level Uncertainty±2.7dB (20°C ~30°C, preheated for 30mins)Input Attenuation Range0 - 30dB, step by 10dB	50MHz - 13GHz, typical	<1.8:1	
Input Attenuation Range 0 - 30dB, step by 10dB	13GHz - 18GHz, typical	<2.0:1	
	Overall-level Uncertainty	±2.7dB (20°C ~30°C, preheated for 30mins)	
Maximum Safety Input Level +27dBm	Input Attenuation Range	0 - 30dB, step by 10dB	
	Maximum Safety Input Level	+27dBm	



(100kHz - 18GHz)

### **General Information**

Power Consumption	<40W (While charging is operated)
	<28W (While charging is disabled)
Power Supply Mode	DC, Rechargeable battery
Battery Service Life	About 4 hours
Input Interface	N-female, $50\Omega$ resistance
Dimension (LxWxD)mm	330x 230 x 95
Weight	Less than 5kg

## **Ordering Information**

No.	Name	
1	Power cord and adaptor	Input: 100-240V~50/60Hz, 1.7A, Output: +15.0V,4.0A
2	USB Communication cable	1 PC
3	PC Card	1 PC



