



## S3532 Series Spectrum Analyzer Datasheet



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## The document applies to the instruments of the following models:

- S3532A spectrum analyzer (9kHz-3.6GHz).
- S3532B spectrum analyzer (9kHz-7.5GHz).

## Standard Accessories of S3532 spectrum analyzer

Item	Name	Qty
1	Main Machine	1 Set
2	Power Cord	1 pcs
3	CD	1 pcs

## Options of the S3532 spectrum analyzer:

Option Number	Item
S3532-01 (for S3532B)	Tracking Source(100kHz - 3.2GHz)
S3532-02	PC control software
S3532-03	Integrated signal generator
S3532-04	EMI near field probe kit
S3532-05	Frequency Identity module kit
S3532-06	Carry Case

## Preface

Thanks for choosing Saluki Technology Inc instrument. We devote ourselves to meeting your demands, providing you high-quality measuring instrument and the best after-sales service. We persist with “superior quality and considerate service”, and are committed to offering satisfactory products and service for our clients.

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S3532-02-01

## Version

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## Product Quality Assurance

The warranty period of the product is 36 months from the date of delivery. The instrument manufacturer will repair or replace damaged parts according to the actual situation within the warranty period. The user should return the product to the manufacturer and prepay mailing costs. The manufacturer will return the product and such costs to the user after maintenance.

## Contacts

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## 1. Overview

S3532 series spectrum analyzer covers a frequency range up to 7.5GHz. It provides a good performance with a low cost. S3532 is a good choice for RF product manufacturing and maintenance. It is also suitable for school education.

### Key Features

- Good specifications, multi-functions
- Multiple communication interfaces, support SCPI for remote access
- Multi-window, multi-trace, clear display
- Optional dual signal source (tracking source and normal source)

## 2. Specification Details

### 2.1. Frequency

	S3532A	S3532B
Frequency range	9kHz~3.6GHz	9kHz~7.5GHz
Resolution	1Hz	1Hz
Frequency readout accuracy	$\pm$ ( frequency indication $\times$ frequency reference+1% $\times$ span+10% $\times$ RBW+0.5 $\times$ [span/ ( number of sweep points-1 ) ]+1Hz )	$\pm$ ( frequency indication $\times$ frequency reference+1% $\times$ span+10% $\times$ RBW+0.5 $\times$ [span/ ( number of sweep points-1 ) ]+1Hz )
Aging Rate	$\pm$ 1ppm/year	$\pm$ 1ppm/year
Temperature stability	$\pm$ 0.5ppm ( 15°C ~ 35°C )	$\pm$ 0.5ppm ( 15°C ~ 35°C )

### 2.2. Amplitude

		S3532A	S3532B		
<b>Amplitude</b>					
Maximum safe input level	Average continuous power	+27dBm	+23dBm		
	DC voltage	50Vdc maximum	50Vdc maximum		
Input attenuator range		0 ~ 39dB, Steps of 3 dB	0 ~ 30dB, Steps of 1 dB		
1dB compression		+7dBm	+10dBm		
<b>Amplitude Accuracy ( 20°C ~ 30°C )</b>					
Comprehensive amplitude accuracy ( 90% )		Input range: 0dBm to -50dBm	$\pm$ 1.5dB	Input range: 0dBm to -50dBm	$\pm$ 1.5dB

## 2. 3. Input /Output

		S3532A	S3532B
RF Input/Output		Type -N female (50Ω)	Type -N female (50Ω)
USB		USB 1.1 B plug	USB 1.1 B plug
LAN		10/100 Base-T, RJ-45 Connectivity	10/100 Base-T, RJ-45 Connectivity
RS232		9-pin D-sub (M)	9-pin D-sub (M)
Reference input/output	10MHz, BNC female	Input level 0dBm ~ +10dBm	Input level 0dBm ~ +10dBm
		Output level 0dBm±2dB	Output level 0dBm±2dB
Trig input	BNC female	5V TTL	5V TTL

## 2. 4. RBW

	S3532A	S3532B
Range	1Hz - 3MHz	1Hz - 3MHz
Resolution filter shape factor(60dB/3dB)	<5: 1 (Typ.)	<5: 1 (Typ.)
Accuracy	<5% (Typ.)	<5% (Typ.)
Video bandwidth (VBW)	10Hz - 3MHz	10Hz - 3MHz

## 2. 5. DANL (0dB attenuation, RBW=1Hz)

Frequency	S3532A		S3532B	
	Preamp off	Preamp on	Preamp off	Preamp on
100kHz ~ 1MHz	<-100dBm-3×(f/100kHz)dB	<-120dBm-3×(f/100kHz)dB	<-95dBm-3×(f/100kHz)dB	<-110dBm-3×(f/100kHz)dB
10MHz ~ 10MHz	<-130dBm	<-150dBm	<-125dBm	<-140dBm
10MHz ~ 1GHz	<-135dBm	<-155dBm	<-133dBm	<-148dBm
1GHz ~ 3.4GHz	<-130dBm	<-148dBm	<-130dBm	<-143dBm
3.4GHz - 3.6GHz	<-130dBm-	<-148dBm	<-130dBm	<-143dBm
3.6GHz ~ 5GHz	-	-	<-133dBm	<-145dBm
5GHz ~ 7.5GHz	-	-	<-127dBm	<-138dBm

## 2. 6. Phase Noise

	S3532A		S3532B	
<b>SSB phase noise (RBW=1kHz, Sample detector, Trace average≥10)</b>				
CF=500MHz	Carrier offset 30kHz	-90dBc/Hz	Carrier offset 30kHz	-90dBc/Hz
	Carrier offset 100kHz	-100dBc/Hz	Carrier offset 100kHz	-90dBc/Hz
	Carrier offset 1MHz	-115dBc/Hz	Carrier offset 1MHz	-110dBc/Hz

## 2. 7. Sweep Time

	S3532A	S3532B
<b>Sweep time</b>		
Full Span	3ms ~ 3000s	3ms ~ 3000s
zero span	1ms ~ 3000s	1ms ~ 3000s
Sweep mode	Continuous, single	Continuous, single

## 2. 8. Spurious Response

		S3532A	S3532B
TOI	>30MHz	+13dBm	+15dBm
SHI		+30dBm	+40dBm
Input related spurious		<-60dBc	<-60dBc
Inherent residual response		<-85dBm	<-85dBm

## 2. 9. Tracking Generator (Option)

	S3532A	S3532B
Frequency range	100kHz - 1.5GHz	100kHz - 3.2GHz
Output level	-30dBm To 0dBm Stepped by 1 dB	-30dBm To 0dBm Stepped by 1 dB
Output flatness	±3dB	±3dB

## 2. 10. General

		<b>S3532A</b>	<b>S3532B</b>
Display		8.4 inch TFT LCD	8.4 inch TFT LCD
Detector		Sample, Peak, Negative peak, Normal	
Limit Line		Available	
Dimensions		390(H)×182(W)×230(D)mm	390(H)×182(W)×230(D)mm
Weight		6.5Kg	6.5Kg
Operating Temperature range		0°C to 40°C	0°C to 40°C
Storage Temperature range		-20°C to +70°C	-20°C to +70°C
Power	Input Voltage	100V-240V AC	100V-240V AC
	Input Frequency	40Hz - 60Hz	40Hz - 60Hz
	Consumption	Max 30W	Max 30W

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