



**TELONIC**  
TEST INSTRUMENTS & POWER SUPPLIES



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# SSA3000X Series Spectrum Analyzer

## Quick Guide



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# General Safety Summary

Carefully read the following safety precautions to avoid any personal injury or damage to the instrument and any products connected to it. To avoid potential hazards, please use the instrument as specified.

## **Use Proper AC Power Line**

Only the power cord designed for the instrument and authorized by local country should be used.

## **Ground the Instrument**

The instrument is grounded through the protective earth conductor of the power line. To avoid electric shock, please make sure the instrument is grounded correctly before connecting its input or output terminals.

## **Connect the Probe Correctly**

If a probe is used, do not connect the ground lead to high voltage since it has isobaric electric potential as the ground.

## **Look Over All Terminals' Ratings**

To avoid fire or electric shock, please look over all ratings and sign instruction of the instrument. Before connecting the instrument, please read the manual carefully to gain more information about the ratings.

## **Use Proper Overvoltage Protection**

Make sure that no overvoltage (such as that caused by a thunderstorm) can reach the product, or else the operator might be exposed to danger of electrical shock.

## **Electrostatic Prevention**

Operate the instrument in an electrostatic discharge protective area environment to avoid damages induced by static discharge. Always ground both the internal and external conductors of the cable to release static before connecting.

## **Maintain Proper Ventilation**

Inadequate ventilation may cause increasing of the instrument's temperature, which will eventually damage the instrument. So keep well ventilated and inspect the intake and fan regularly.

## **Avoid Exposed Circuit or Components**

Do not touch exposed contacts or components when the power is on.

## **Do Not Operate Without Covers**

Do not operate the instrument with covers or panels removed.

## **Use Only the Specified Fuse.**

## **Keep Product Surfaces Clean and Dry**

To avoid the influence of dust and/or moisture in the air, please keep the surface of the device clean and dry.

## **Do Not Operate in Wet Conditions**

In order to avoid short circuiting to the interior of the device or electric shock, please do not operate the instrument in a humid environment.

## **Do Not Operate in an Explosive Atmosphere**

In order to avoid damage to the device or personal injury, it is important to operate the device away from an explosive atmosphere.

# General Safety Summary

## Safety Terms and Symbols

Terms on the product. These terms may appear on the product:

**DANGER** Indicates direct injuries or hazards that may happen.

**WARNING** Indicates potential injuries or hazards that may happen.

**CAUTION** Indicates potential damages to the instrument or other property that may happen.

Symbols on the product. These symbols may appear on the product:



Warning



Hazardous  
Voltage



Protective  
Earth Ground



Earth  
Ground



Chassis  
Ground

# General Care and Cleaning

## Care

Do not store or leave the instrument in direct sunshine for extended periods of time.

### Notice:

To avoid damages to the instrument, please do not leave it in fog, liquid, or solvent.

## Cleaning

Please perform the following steps to clean the instrument regularly according to its operating conditions.

1. Disconnect the instrument from all power sources, and then clean it with a soft wet cloth.
2. Clean the loose dust on the outside of the instrument with a soft cloth. When cleaning the LCD, take care to avoid scratching it.

### Notice:

To avoid damages to the surface of the instrument, please do not use any corrosive liquid or chemical cleanser.

Make sure that the instrument is completely dry before restarting it to avoid short circuits or personal injuries.

# General Inspection

## **1. Inspect the shipping container**

Keep the damaged shipping container or cushioning material until the contents of the shipment have been completely checked and the instrument has passed both electrical and mechanical tests.

## **2. Inspect the instrument**

If the instrument is found to be damaged, defective or fails in electrical or mechanical tests, please contact SIGLENT.

## **3. Check the accessories**

Please check the accessories according to the packing list. If the accessories are incomplete or damaged, please contact your SIGLENT sales representative.

# Appearance and Dimension

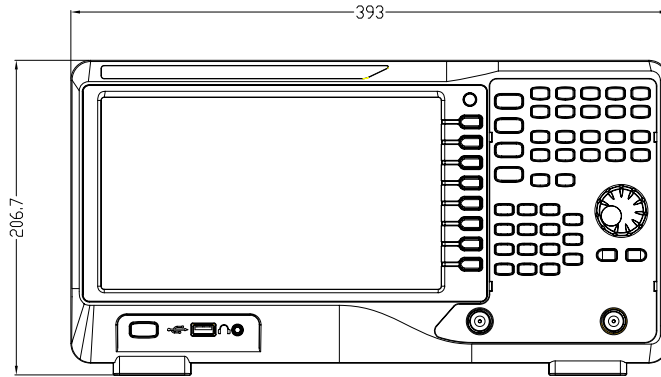


Figure 1 Front View

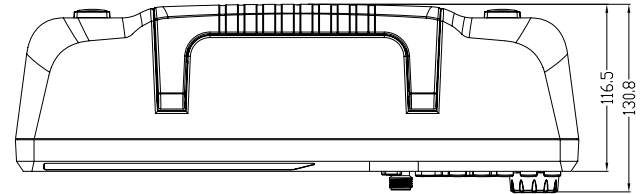
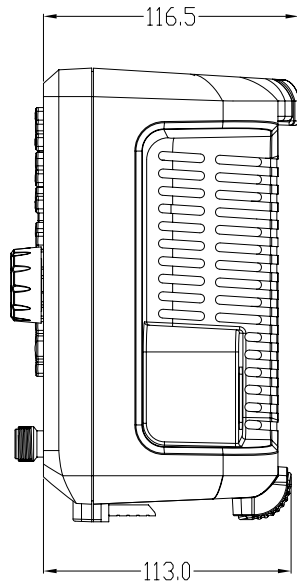


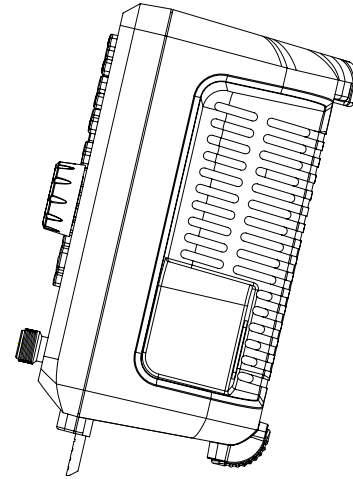
Figure 2 Top View

## Adjust the Supporting Legs

Adjust the supporting legs properly to use them as stands to tilt the Spectrum Analyzer upwards for stable placement as well as easier operation and observation of the instrument.



Before adjusting

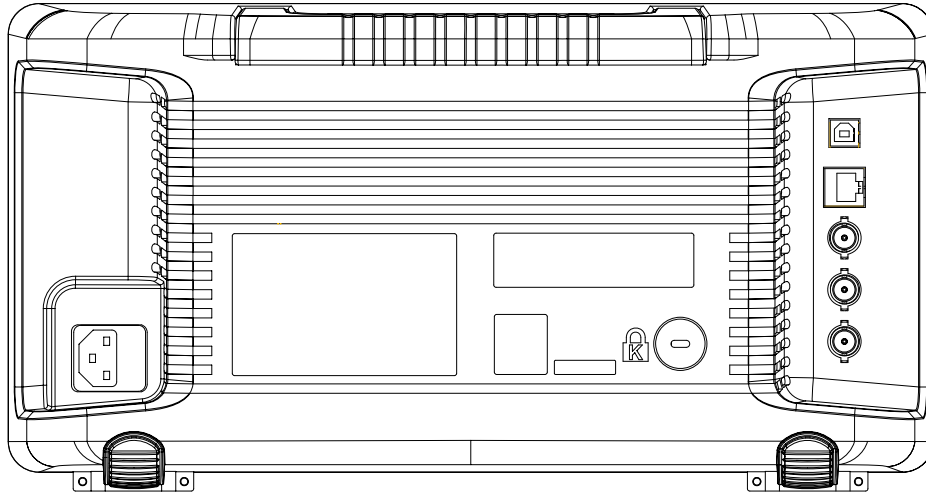


After adjusting



## Connect to AC Power Supply

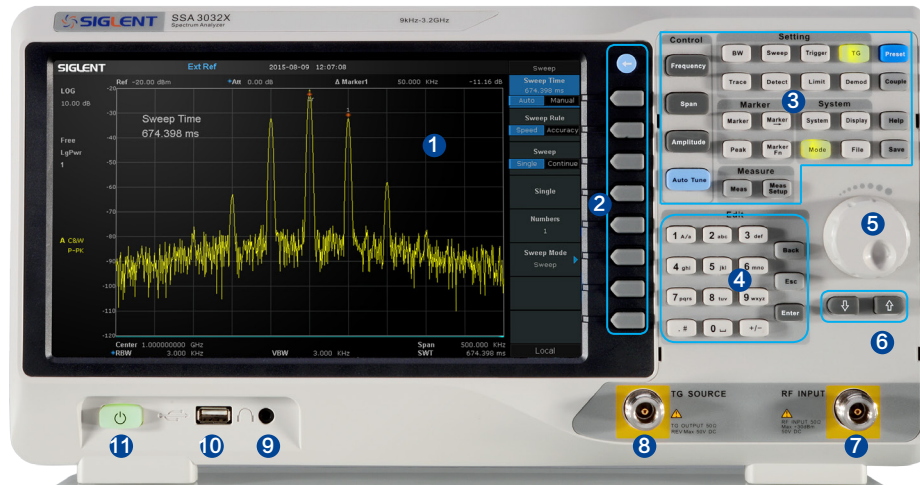
The Spectrum Analyzer accept 100-240V, 50/60/440Hz AC power supply. Please use the power cord provided as accessories to connect the instrument to the power source as shown in the figure below.



# General Description

SSA3000X series spectrum analyzer has a frequency range from 9 kHz up to 2.1 GHz/3.2 GHz. It is lightweight, small and precise, offering a user friendly interface, clear display with plenty of RF measurement functions. The product can be used for research and development, education, production, maintenance and other relevant applications.

## The Front Panel



- |                             |                     |                       |                  |
|-----------------------------|---------------------|-----------------------|------------------|
| 1、 User Graphical Interface | 4、 Numeric Keyboard | 7、 RF Input           | 10、 USB Host     |
| 2、 Menu Control Keys        | 5、 Knob             | 8、 TG Output          | 11、 Power Switch |
| 3、 Function Keys            | 6、 Arrow Keys       | 9、 Earphone interface |                  |

### **Details of the Various Functions:**

**Frequency:** Sets the Center Freq\Start Freq\Stop Freq\Freq Step

**Span:** Sets the Span\Full Span\Zero Span\Zoom In\Zoom Out\Last Span

**Amplitude:** Used to Set the REF Level\Attenuator\Preamp\Amplitude

**Auto Tune:** Automatically sets the optimal parameters according to the characteristics of the signal

**BW:** Used to adjust the RBW,VBW,VBW/RBW Rate,Average Type (Logpower\Power\Voltage)

**Trace:** Selects Trace\Trace setup\Trace math

**Sweep:** Selects the Sweep time\Sweep Rule\Sweep Mode

**Detect:** Selects the Detector type

**Trigger:** Used in Selecting the Free Trigger\Video Trigger\External Trigger

**Limit:** Sets the Pass\Fail Limit

**TG:** Sets the TG Level\TG Level offset\Normalize

**Demod:** Used to set the Parameters of the AM and FM

**Marker:** Used to Select the Mark Trace and Marker math

**Marker→:** Sets all types of Markers to Freq

**Marker Fn:** Selects the Noise Marker\N dB BW\Freq Counter\Read out of Freq

**Peak:** Searches for the Peak Signal and Counts the Peak Frequency

**Meas:** Selects the Channel Power\ACPR\Occupied BW\T-Power

**Meas Setup:** Used to Choose the Parameters Details of Channel Power\ACPR\Occupied BW\T-Power

**System:** Selects the Language\Power on/Preset\Interface\Calibration\system information\Data&Time\Self Test

**Mode:** Selects the operation Mode

**Display:** Used to Adjust the Grid Brightness\Display Line

**File:** Use to Select the File system

**Preset:** Sets the system to default status

**Couple:** Used to Select the RBW\VBW\Attenuator\Freq Step\Sweep time mode

**Help:** Help Information Switch

**Save:** Save Shortcut Key

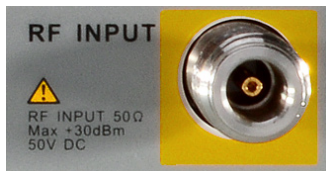
# The Rear Panel



- 1、 Handle
- 2、 USB Device
- 3、 LAN Interface
- 4、 10MHz REF Input
- 5、 10MHz REF Output
- 6、 Trigger In
- 7、 Safety Lock Hole
- 8、 AC Power Socket

# Operation Notices

## 1. RF INPUT



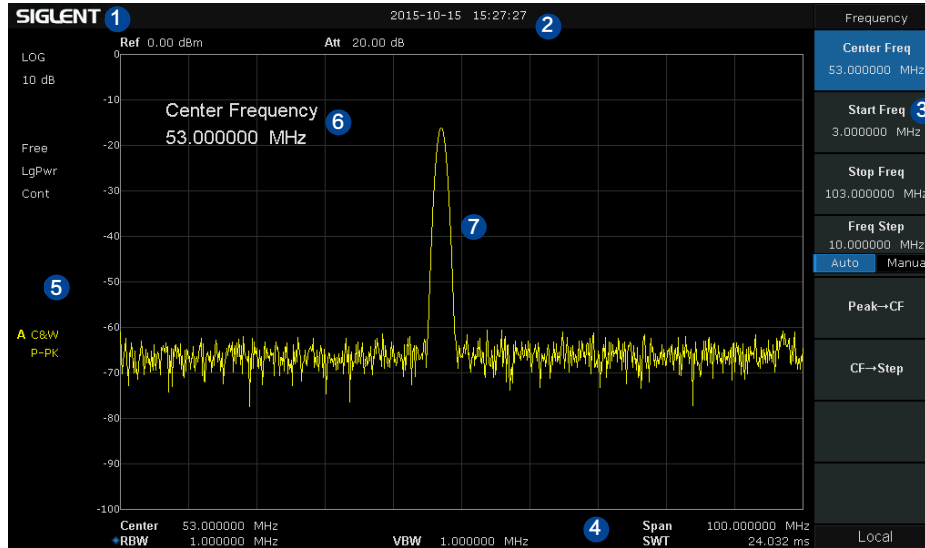
To avoid damage to the instrument, make certain that the input signal to the RF input port does not contain more than 50 Volts DC. The AC (radio frequency) input signal component should not exceed a maximum continuous power level of +30dBm.

## 2. TG OUTPUT



To avoid damage to the tracking generator, The reverse DC voltage must not exceed 50V

# User Graphical Interface



- 1、SIGLENT LOGO
- 2、4、5: Parameters setting area
- 3、Menu setting area
- 6、Active parameter
- 7、Display area

## For More Product Information

You can obtain the instrument information including model, serial number as well as hardware and software version numbers through **System** → **Information**.

For more information of this product, please refer to the following manuals (provided in the "CD" in the accessories; you can also download them from the **SIGLENT** Web site):

**SSA3000X Series User Manual:** provides detailed introductions of the functions of this product;

**SSA3000X Series Programming Guide:** provides detailed introductions of the SCPI commands and programming of this product;

**SSA3000X Series Datasheet:** provides the main characteristics and specifications of this product;



# Contact us

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