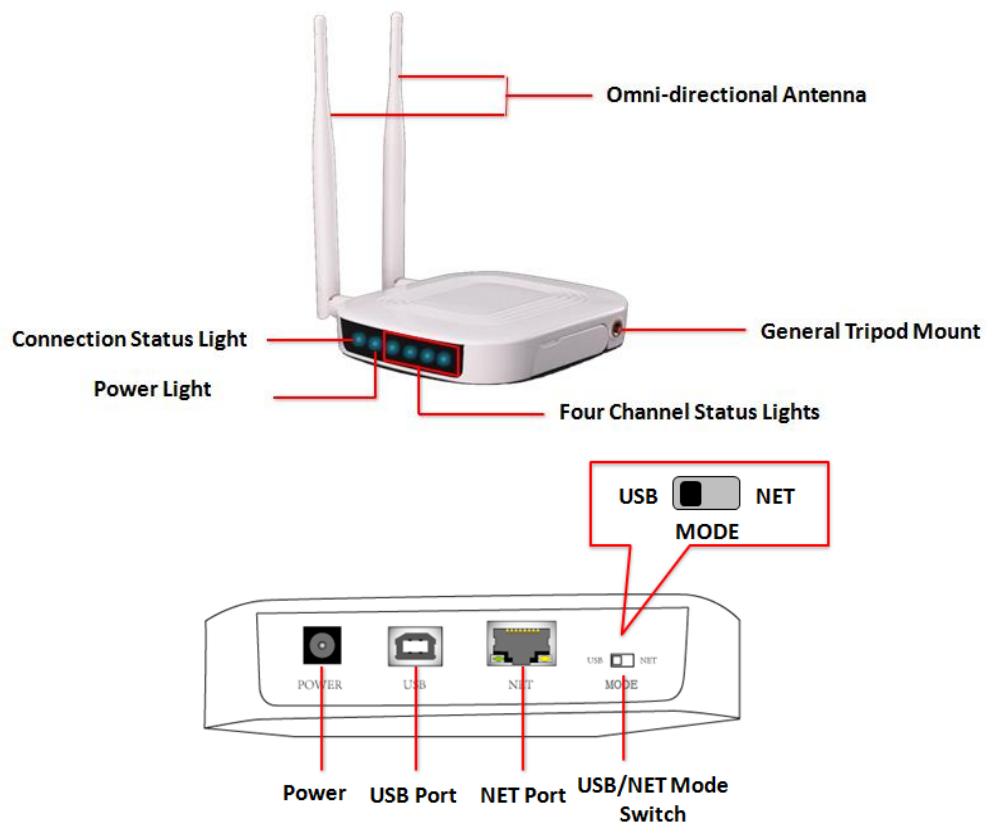# Base Station-EA4000T-Product Functional Specifications

| [Product Appearance](#) | [Feedback & Settings](#) | [Specifications](#) | [System Structure](#) | [Service & Support](#) |

1. Product Appearance

LED light status indications:

(1) Power light is on: base station is powered on.

(2) Connection status light flashes slowly (once a second): connect base station to computer successfully.

(3) Connection status light flashes fast (several times a second): connect base station and software successfully.

(4) Channel status light flashes: base station has received keypad data successfully.

2. Functions & Settings

2.1 Connection mode

· Provide two connection modes: USB and NET.

2.2 Base station match

· Provide three options to mach base station and keypad: fixed, dynamic and free match.

2.3 ID number

2.3.1 Set/Modify ID number

· Base station can be numbered via software for multiple bases working simultaneously;

· ID number will be kept automatically after setting. If you want to modify it, it will be in the same way as number setting.

2.3.2 Check ID number

· Check the base station ID through software.

2.4 Online test/Status control

· Test the working, communication, voting, submission and battery status of single or batch keypads online via base station.

2.5 System settings

· Set the base station channel, RF grade, voting system features (e.g. keypad turn-off time, LCD backlight mode) via software.

· Modify IP address, subnet mask and gateway address of base station via software.

2.6 Backup & Recovery

· Support the base station backup and recovery via software.

3. Specifications

3.1 Enclosure

· Material: ABS plastics

· Dimensions: 137mm×125mm×25mm (L×W×H)

· Weight: 215g (including antenna)

· Color: white

3.2 Base station identity code

· Each base station has a unique 5 byte serial number (11 bits in all).

· Each base station has a unique 4 byte match code.

3.3 Interfaces & Ports

· 1 power port: external power supply for NET connection.

· 1 USB port: connect up to 10-meter USB2.0 extension cord.

· 1 NET port: connect up to 50-meter network cable.

· 1 USB/NET mode switch

· 1 general tripod mount

· 2 omni-directional antennas

3.4 Display

· 6 LED lights indicate power, connection and communication status respectively.

3.5 Communication parameter

· Specific SunVote ARS communication protocol:

—— Employs international two way RF 2.4GHz digital communication technology with multiple channels.

· Channels: 32 channels, RF power < +22dBm

· Operation distance: The base station covers a radius of 100 meters and the total range of the system is determined by the base and keypad whichever is shorter. Moreover, the communication is also subject to the surroundings and operating modes. If it's in a complicated environment, the reception of keypad signal can be improved by elevation of the base station etc. （Working with EA4000R）

· Speed: the average speed can reach 100 keypads per second with peak speed up to 200 keypads per second (use M52Plus/M50Plus).

3.6 Power supply

· For USB connection, power is supplied via USB.

· For NET connection, power is supplied via 15V DC power adapter.

3.7 Capacity & Scalability

· 2000 M52Plus/M50Plus keypads per base station; 500 M52/M50 keypads per base station.

· Support up to 8 sets of systems in nearby places simultaneously without mutual interference.

3.8 Secondary development support

· Customize the color, logo, display and operation distance as per customer needs (contact sales for charges, MOQ and other requirements).

· Support completely new SunVote SDK secondary development software kit (contact sales for details).

· Support completely new SunVote SDK TT test tool software.

3.9 Anti-interference parameter

· If the interference signal of 2.4G devices (such as wireless router) is strong, it is useful to adjust the base station channel for better transmission efficiency.
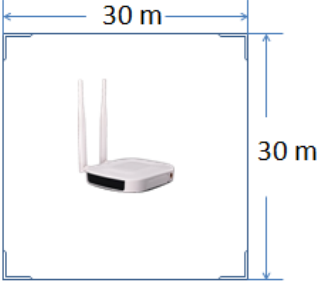
4. System Structure

5.1 Optional (contact sales for more details)

Base Station	PPT Remote Control	Software	Applied Keypad	Mobile Base Station	Applicable Occasions
EA4000T	50R	ARS PPT Standard Version	M50/M50Plus M52/M52Plus	Nil	Suitable for rooms less than 30 meters *30 meters for no more than 800 people
			M50Plus/ M52Plus	EA4000R	Suitable for large rooms less than 100 meters *100 meters for no more than 2000 people and with complex environment

5.2 Typical cases on configurations

· Case 1

	Room size	30 meters *30 meters
	Seats	Less than 400 people
	Recommended base station	EA4000T * 1pcs + 1pcs spare
	Applied keypad	M50/M50Plus/M52/M52Plus
	Recommended placement of base station	Located anywhere, recommend placing at 1.5 meters high.

· Case 2

	Room size	50 meters *50 meters
	Seats	Less than 1000 people
	Recommended main base station	EA4000T * 1pcs + 1pcs spare
	Recommended mobile base station	EA4000R * 2pcs
	Applied keypad	M50Plus/M52Plus
	Recommended placement of main base station	Located anywhere, recommend placing at 1.5 meters high.
	Recommended placement of mobile base station	Place at two spots farther away from the main base station (as shown on the left)

· Case 3

	Room size	100 meters *100 meters
	Seats	Less than 2000 people
	Recommended main base station	EA4000T * 1pcs + 1pcs spare
	Recommended mobile base station	EA4000R * 4pcs
	Applied keypad	M50Plus/M52Plus
	Seat arrangement -1	Arena is at the room center (A)
	Recommended placement of main base station	Area A as shown (Radius A=20meters)
	Recommended placement of mobile base station	Area B as shown (Radius B=10meters)
	Seat arrangement -2	Seats are centered at area C
	Recommended placement of main base station	Area A as shown (Radius A=20meters)
	Recommended placement of mobile base station	Area B as shown (Radius B=10meters)

5. Service & Support

·Certificate: Contact with technical support for details；

· Warranty: 2 years (limit maintenance, component and manpower)

· Please contact us for details: Sales and agent service: sales@sunvote.com.cn

Technical support service: support@sunvote.com.cn

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