

Product specification

Latest rev:02

File NO. : PS-R45-02

Issue date:2018-7-27

MODEL NO: R45

PRODUCT DESCRIPTION:ANEMOMETER WITH TEMPERATURE AND HUMIDITY SENSOR

REV	content	日期
00	First rev	2018-5-07
01	Modify static current	2018-6-12
02	Increase the wind speed standard and modify the static current standard	2018-7-27

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Product picture:



PREPARED BY:

REVIEWED BY:

APPROVED BY:

Product specification

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1. MAIN FEATURE:

- RCC receiving mode: WWVB, DCF, MSF
- Temperature detection, resolution of 0.1°C, detection range +70 °C to -40 °C; testing time: before the launch
- Humidity detection, resolution 1%, detection range 20%--99%, testing time: before the launch
- Low voltage indicator function
- 3 channels of RF
- Battery low voltage detection
- ASK lunch mode
- RF test mode
- Three channels synchronize time separately: (CH1=57S CH2=67S CH3=79S)
- Humidity error compensation (+/-3%): lock point selection
- 2 functional key, 1 channel switch
 - A. WAVE: long press for 2 seconds to turn on or off RCC
 - B. TX: every press of key sends a signal once
- wind direction, wind speed function

2. WORKING STATUS

- After power on or reset, send once data after the temperature, humidity and wind direction are detected, detection time 7 second.
 - After power on and send once data, automatically enter the RCC receive mode, will automatically exit after receiving data or after seven minutes non receiving any data
 - After RCC receiving, send a new cycle time data according to the previous synchronization.
 - Send format: year, month, date, hour, minute, second, DST, temperature, humidity, low voltage, wind direction, wind speed
 - Sending cycle: 57S, 67S, 79S
 - Transmitter automatically receive RCC time every day at: 1: 00; 2: 00; 3: 00; 4: 00; 5: 00
 - 1:00-3:00 are mandatory time, 3:00-5:00 if successfully received once, will stop receiving that day
 - Every day automatically receiving time: 1: 00
 - When RCC received DST, will send to receiver
- 4.1 transmitter testing:
- press "TX" to power on, enter RF testing mode, in this mode, transmitter send data every minute till turn off or reset transmitter

	<p>4.2 transmitter work:</p> <ul style="list-style-type: none"> ➤ If RCC failed synchronization, receiver not update the timeIn the process of receiving RCC do not send RF, ➤ press“TX”key once, send RF once, receiver is not recorded in the synchronous cycle ➤ Long press “WAVE” to enter RCC receiving mode, again long press “WAVE” to exit RCC receiving mode <p>6.LOW_BATT test:</p> <p>A: LOW_BATT is tested by the out low power IC</p> <p>B: testing time: test before send</p>
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S P E C	<p>A. wind speed and wind direction function:</p> <ul style="list-style-type: none"> ➤ Wind speed only use PA0 to detect level flip number of times(internal pull-up,low level ➤ Wind direction use separately IC to test, the power is controlled by MCU ➤ 16 kinds of wind direction,8 related I/O point to 8 direction ➤ All the wind direction I/O port use magnetic control,low level effective. If two adjacent I/O ports conduction at the same time, mean the wind direction is between the two direction <p>B. Temperature/humidity function:</p> <ul style="list-style-type: none"> ➤ Temperature testing range: -40°C--+70°C, resolution 0.1°C ➤ Humidity testing range: 20%-99%, resolution 1% ➤ test cycle:before send ➤ Temperature SENSOR: 49.12K ➤ Humidity SENSOR: 23K
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ELECTRIC SPEC

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Battery voltage=4×1.5V(AA) sizealkaline battery or the same specification battery, the environment temperature=25°C

ITEM	UNIT	MIN	TYPICAL VALUE	MAX
1. (Supply voltage):	V	2.5	3.0	3.3
2. (Standby current):	uA	--	--	55
3. (The RF current)	mA	--	--	12

4. (The RF distance)	m	100	--	--
5. (number of RF channel)	--	--	3	--
6. (wind direction)	↑		16	
7. (Working temperature range)	°C	-10		+50
8. (Temp accuracy)				
68°F-75°F (20°C-24°C) :	°F	-1		+1
32°F-68°F (0°C-20°C) 和 75°F-104°F (24°C-40°C) :	°F	-2		+2
104°F-122°F (40°C-50°C) 和 -4°F-32°F (-20°C-0°C)	°F	-3		+3
Other:	°F	-4		+4
9. (Humidity accuracy)	%	40%-80%±5% 其它点 8%		
10. Low battery indicator	V	2.3		2.7
11. (RCC receiving Sensitivity)	Uv/m	--	90	--
3. (The RCC current)	mA	--	--	1.8
12. (Clock accuracy)	sec/Day	-1	--	+1
13. The wind speed standard)				
14. (Battery life of Alkaline battery)	Month	12	---	---

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and

(2) this device must accept any interference received, including interference that may cause undesired operation.

Caution!

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.