BASELINE® EVALUATION INSTRUMENTS

Electronic Blood Pressure Monitor

Upper Arm Model

Instruction Manual

REF 12-2272

U82V

Table of Contents

Introduction

▲ Your new digital blood pressure monitor uses the oscillometric method of blood pressure measurement. This means the monitor detects your blood's movement through your brachial artery and converts the movements into a digital reading. An oscillometric monitor does not require a stethoscope, so the monitor is simple to use.

▲ This automatic blood pressure monitor measures systolic pressure, diastolic pressure and pulse. The components included are: the monitor unit, cuff and printed instruction manual. Batteries are included. Adapter is optional. This unit intended for users 12 and older.

▲ Intelligent inflation will reduce the uncomfortable feeling by incorrect inflation and shorten the measurement time, prolonging the cuff's usage lifetime.

▲ The unit allows for 2 users and stores 199 readings per user. Each measurement result is displayed on the screen and automatically stored. This unit has a blood classification index that checks blood pressure.

Please read the manual carefully before you use the unit, and keep the manual after using.

INTENDED USE

This automatic blood pressure monitor intends to measure systolic pressure, diastolic pressure and pulse rate through your upper arm. It's expected to be used at home or in the hospital, and it's intended for people over 12 years old.

Contraindication:

This product can't be used on patients who have severe heart insufficiency to avoid suffocation and death. This product is not suitable for infants and children.

Safety Information

• To assure the correct use of the product, basic safety measures should always be followed, including the warnings and the cautions listed in the instruction manual:

Symbol Descriptions

The following symbols may appear in this manual, on the label, on the device, or on its accessories. Some of the symbols represent standards and compliances associated with the device and its use.

⚠ **WARNING:** This alert identifies hazards that may cause serious personal injury or death.

⚠ **CAUTION:** This alert identifies hazards that may cause minor personal injury, product damage, or property damage.

Type BF applied part

Manufacturer SN Specifies serial number

EC REP Authorized Representative in the European Community

CE 0123 CE Mark: conforms to essential requirements of the Medical Device Directive 93/42/EEC.

DISPOSAL: Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.

Direct current

Follow instructions for use

⚠ CAUTION: Consult accompanying documents

Safety Information

⚠ Those with arrhythmia, diabetes, blood circulation or apoplexy problem, should use this device under physician instruction.

⚠ Contact your physician for specific information about your blood pressure. Self-diagnosis and treatment using measured results may be dangerous. Follow the instructions of your physician or licensed health care provider.

⚠ Store in a high place where children cannot reach.

⚠ No modification of this equipment is allowed.

⚠ Do not modify this equipment without authorization of the manufacturer.

⚠ If this equipment is modified, appropriate inspection and testing must be conducted to ensure continued safe use of equipment.

⚠ The cuff hose around neck may cause suffocation.

⚠ The swallowing of small part like packaging bag, battery, battery cover and so on may cause suffocation.

⚠ Do not use a dilution agent, alcohol or petrol to clean the unit. Do not hit heavily or knock down the product from a high place. Use the proper cuff otherwise it will not work.

⚠ Never leave any low battery in the battery compartment as it may leak and cause damage to the unit.

⚠ Remove the battery if the device is not used in 3 months.

⚠ Replace the new batteries if the unit displays a low battery symbol.

Safety Information

• Do not mix old and new batteries.

• Do not use a cellular phone near the unit. It may result in operational failure.

• Please avoid using in high radiant area in order to make your measuring data correct.

• Do not use the equipment where flammable gas (such as anesthetic gas, oxygen or hydrogen) or flammable liquid (such as alcohol) is present.

⚠ **WARNING:**
Do not dispose of electrical appliances as unsorted municipal waste: use separate collection facilities. Contact your local government for information regarding the collection systems available. If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

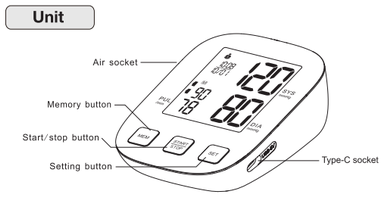
Classification

1. Internally powered equipment;
2. Type BF applied part;
3. Protection against ingress of water or Particulate matter: IP21;
4. Not category AP /APG equipment;
5. Not category AP /APG equipment;

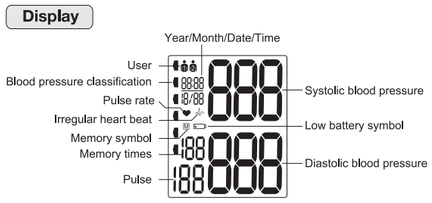
⚠ The user must check that the equipment functions safely and see that it is in proper working condition before being used.

Product Structure

Unit



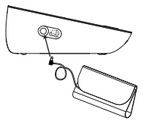
Display



Cuff size and connection

The cuff is a large size for upper-arm use: circumference 8.7" to 14.2" (22 to 36 cm). The cuff is treated as the applied part.

Insert the connector with cuff tube into the hole, which is on the left side of the device as pictured. (Only the provided cuff can be used. Do not change to any other branded cuff.)



Safety Information

⚠ Consecutive blood pressure measurements should be repeated after 1 minute pause or after the arm has been held up in order to allow the accumulated blood to flow away.

⚠ If the arm circumference size is beyond the measuring range of cuff, it can't be measured and used; this will cause unsmooth bloodflow and wrong measurement data.

⚠ Do not kink the connection tube during use, otherwise the cuff pressure may continuously increase, which can prevent blood flow and result in harmful injury to the patient.

⚠ Too frequent measurements can cause injury to the patient due to blood flow interference.

⚠ Don't apply cuff over a wound; it can cause further injury to the patient.

⚠ The device is not suitable for use on neonatal patients, pregnant women; patients with implanted, electronical devices; patients with pre-eclampsia, premature ventricular beats, atrial fibrillation, peripheral, and arterial disease; patients undergoing intravascular therapy or arterio-venous shunt; or people who received a mastectomy. Consult your doctor prior to using the unit if you suffer from illnesses.

⚠ When using this device, pay attention to the following situation which may interrupt blood flow and influence blood circulation of the patient, thus causing injury: connection tubing kinking too frequent; the application of the cuff and its pressurization on any arm where intravascular access or therapy, or an arterio-venous (A-V) shunt, is present; or inflating the cuff on the side of a mastectomy.

⚠ Do not inflate the cuff on the same limb where other monitoring medical equipment is applied around simultaneously, because this could cause temporary loss of function of that equipment.

⚠ Please check that operation of the device does not result in prolonged impairment of patient blood circulation.

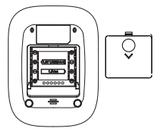
Battery Installation

Battery installation

Remove the battery cover from the battery compartment to insert the batteries

a) Remove the battery cover as the picture shows.

b) Insert 4 AAA batteries (included) into the compartment and ensure each battery is in the proper direction.



Low battery and replacement

When powered on, the low battery symbol will appear.

You must replace with new batteries or the unit will not work.

Battery type and replacement

Please use (4) 1.5V AAA batteries.

Do not use the batteries beyond their expiry date.

If the monitor isn't in use for a long time, please remove the batteries.

⚠ **WARNING:**

Dispose of the batteries in accordance with all federal, state and local laws. To avoid fire and explosion hazard, do not burn or incinerate the batteries.

Battery Installation and Setting Mode

Note:

• When using the AC adapter, the battery power won't be consumed.

• When the unit suddenly stops during the measurement (got unplugged from the outlet) you must reinsert the plug into the unit and the measurement must be restarted.

How to Set

1. User Setting:

Press the SET button when powered off. The screen will display 1 or 2. Press MEM button to change between 1 or 2. Press the SET button to confirm the user. This will bring you into the year setting mode.

2. Year Setting:

After the above step the screen will display and flash the year. Press the MEM button to increase the number and press the SET button to confirm the year. This will bring you into the date setting mode.

Year setting

Setting Mode

3. Month and Date Setting:

After the above step the screen will display the month and day (XX/XX). Press the MEM button to set the number from 1 to 12 and press SET to confirm the month. Same as the month settings, press the MEM button to set the number from 01 to 31. Press set to confirm the date. This will bring you into the time-setting mode.

Month setting

Date setting

4. Time Setting:

After the above step the screen will display the time (XX:XX). Press the MEM button to set the number from 0 to 23. Press the SET button to confirm the hour. Same as the hour settings, press the MEM button to set the number from 00 to 59. Press the SET button to confirm the minutes. The setting mode is now complete.

Hour setting

Minute setting

Proper Use of the Unit

Measurement

Pre-measurement

• Relax for about five to 10 minutes prior to the measurement. Avoid eating, drinking alcohol, smoking, exercising and bathing for 30 minutes before taking a measurement. All these factors will influence the measurement result.

• Remove any garment that fits closely to your upper arm.

• Always measure on the same arm (normally left).

• Take measurement regularly at the same time of every day, as blood pressure changes throughout the day.

Common Factors of Wrong Measurement

• All efforts by the patient to support their arm can increase blood pressure.

• Make sure you are in a comfortable, relaxed position and do not activate any of the muscles in the measurement arm. Uncross your legs, keep your feet flat on the floor, and keep your back and arm supported during the measurement. Use a cushion for support if necessary.

• If the arm artery lies lower or higher than the heart, a false reading will be obtained.

Note:

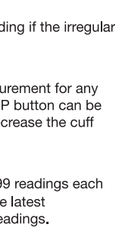
• Only use clinically approved cuffs!

• A loose cuff or a exposed bladder causes false reading.

• With repeated measurements, blood accumulates in the arm which can lead to false reading. Consecutive blood pressure measurements should be repeated after 1 minute pause or after the arm has been held up in order to allow the accumulated blood to flow away.

Proper Use of the Unit

Fitting the Cuff



1. Lay the cuff flat on a table with the velcro side -down. Pass the end of the cuff through the metal loop so that a circle is formed. The velcro closer will now face outwards (ignore this step if the cuff has already been prepared).
2. Push the cuff over the left upper arm so that the tube points in the direction of the lower arm.
3. Wrap the cuff around the arm as shown in the picture. Make sure that the distance between the cuff trachea turret and the elbow joint is about 2-3 cm (1 inch)
4. Tighten the free end of the cuff and close the cuff by affixing the velcro.
5. The cuff should be snug on your upper arm so that you can fit 2 fingers between the cuff and your upper arm. Any piece of clothing that restricts the arm must be removed.
6. Secure the cuff with the velcro closer in such a way that it lies comfortably and is not too light. Lay your arm on a table (palm upwards) so that the cuff is at the same height as the heart. Do not bend the tube.

Note:
If it is not possible to fit the cuff to your left arm, it can also be placed on the right. However, all measurements should be made using the same arm.

Proper Use of the Unit

Measuring Procedure:

After the cuff has been appropriately positioned, the measurement can begin:

1. Press the START/STOP button; all symbols appear on the display for 1 second. Enter "auto zero" mode, it will display "0" and flash for two seconds then the pump will begin to inflate the cuff. The rising pressure in the cuff is shown on the display.
2. After the suitable pressure has been reached, the pump stops and the pressure gradually falls. The cuff pressure is displayed. If the inflation is not sufficient, the cuff will automatically re-inflate to a higher pressure.
3. When the device detects the signal, the heart symbol ♥ on the display will start to flash.
4. When the measurement is complete, the systolic, diastolic and pulse rate will appear on the display.
5. The measurement readings remain on the display until you switch off the device. If no button is pressed for a period of 3 minutes, the device automaticaly turns off to save power.

Note:
The symbol will be displayed along with the reading if the irregular heartbeat is detected during the measurement.

Discontinuing a measurement:

If it is necessary to interrupt a blood pressure measurement for any reason (ex. the patient feels unwell) the START/STOP button can be pressed at any time. The device will immediately decrease the cuff pressure automatically.

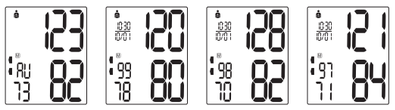
Memory-recall of measurements:

This blood pressure monitor automatically stores 199 readings each for 2 users. The oldest record will be replaced by the latest measurement value when each user exceeds 199 readings.

Proper Use of the Unit

Read memory record

Press the button MEM when the power is off: the average value of the last 3 measurements will appear. Press the MEM button again: the last measurement value will be shown. Subsequent measurements can be displayed one after the other by pressing the MEM button each time.



Clear saved measurements

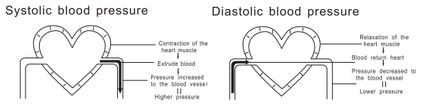
If you are sure that you want to permanently remove all stored meaurement readings, press the SET button 7 times until CL appears when powered off. Press the START/STOP button; CL will flash for 3 times to clear all saved readings. Press MEM button, “no” will be shown on the display, which means the readings have been removed.

About Blood Pressure

Blood pressure is the pressure exerted from the arteries.

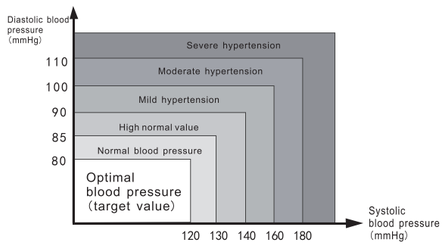
Systolic blood pressure value represents the blood pressure produced by contraction of the heart muscle.

Diastolic blood pressure value represents the blood pressure produced by relaxation of the heart muscle.

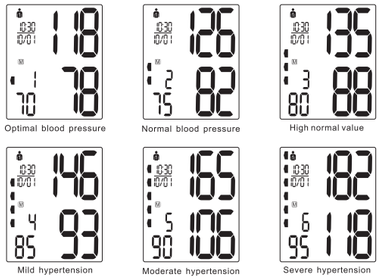


About Blood Pressure

- According to the blood pressure classification by the WHO/ISH.
- SYS lower than 100mmHg (13.3kPa) is considered hypotension.



- Blood pressure type



Exceptional Situations

Error Indicators

- The following symbol will appear on the display when measuring is abnormal.

Symbol	Cause	Correction
E-1	Weak signal or pressure change suddenly out of range indicates HI	Wrap the cuff properly.
		With a correct way.
E-2	External strong disturbance	When near cell phone or other high radiant device, the measurement will fail.
		Keep quiet and no talking when measuring
E-3	Error during the process of inflating	Wrap the cuff properly.
		Make sure that the air plug is properly inserted in the unit
		Remeasure.
E-5	Abnormal blood pressure	Repeat the measurement after relaxing for 30 mins. If you get unusual readings 3 times, please contact your doctor.
	Low battery	Replace all the worn batteries with new ones.

Trouble Removal

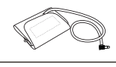
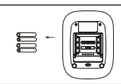
Problem	Check	Cause and Solutions
No power	Check the battery power	Replace with new one
	Check the polarity position	Installation for proper placement of the batteries polarities
No inflation	If the plus is inserted	Insert into the air socket tightly
	Whether the plug is broken or leaks	Replace with a new cuff
Error and it stops working	Moving your arm during inflation	Keep the body still
	Check if chatting when measuring	Keep quiet when measuring
Cuff leak	Whether the cuff wrap is too loose	Wrap the cuff tightly
	Whether the cuff is broken	Replace with a new cuff
⚠ Please contact the distributor if you can't solve the problem. Do not disassemble the unit by yourself!		

Care and Maintenance

Care for the main unit and blood pressure monitor cuff

• Keep the unit in the storage case when not in use. • Clean the unit with soft dry cloth. Do not use any abrasive or volatile cleaners. • Never immerse the unit or any component in water.	
• Make sure the monitor is off prior to cleaning. Use a mixture of distilled water and 10 percent bleach. • Using a spray bottle, moisten a soft cloth towel with the bleach or detergent mix until it is fully saturated. Squeeze any excess moisture from the cloth to avoid any dripping or potential oversaturation of the cuff • Wipe all surfaces of the blood pressure monitor cuff thoroughly, making sure to clean the inside and outside of the cuff. Be cautious not to get any moisture in the main unit. • Using a dry cloth, gently wipe away any excess moisture that may remain on the blood pressure cuff. Lay the cuff flat in an unrolled position and allow the cuff to air dry.	

Maintenance

• Do not clean the body and cuff with naphtha, thinner or gasoline etc.	• Do not wet the cuff or attempt to clean the cuff with water.
	
• Store the unit in a clean and dry location. Do not subject the unit to extreme hot or cold temperature, humidity and direct sunlight.	• Remove the batteries if the unit will not be used in 3 months or longer.
	
※ We are not responsible for quality related problems if the unit is not maintained properly.	

Specification

Description	Upper arm electronic blood pressure monitor	
Display	LCD digital display	
Measuring principle	Oscillometric method	
Measuring localization	Upper arm	
Measurement range	Pressure	0 ~ 299 mmHg
	Pulse	40 ~ 199 pulses/min
Accuracy	Pressure	±3 mmHg
	Pulse	±5% of reading
LCD indication	Pressure	3 digits display of mmHg
	Pulse	3 digits display
	Symbol	Memory/Heartbeat/Low battery
Memory function	2x 199 sets memory of measurement values	
Power source	4pcs AAA alkaline batteries / type-c 5V	
Automatic power off	In 3 minutes	
Main unit weight	Approx. 180g (batteries not included)	
Main unit size	129.3 mm X 96.6 mm X 46.3 mm	
Main unit lifetime	10,000 times under normal use	
Battery life	Could be used for 300 times for normal condition	
Accessories	Cuff, instruction manual	
Operating environment	Temperature	5 ~ 40°C
	Humidity	15% ~ 93%RH
	Air pressure	86kPa ~ 106kPa
Storage environment	Air pressure 86kPa ~ 106kPa Temperature -20°C ~ 55°C, Humidity: 10% ~ 93%RH avoid impact and sun or water exposure during transportation.	
Expected service life	5 years	
Software Ver	UA1.0	

Warranty Information

Statement

- The intended use: the unit is intended to be used by adults at home or medical center to measure blood pressure and pulse rate from the upper arm.
- The unit satisfies the requirements of EN ISO 81060-1 Part 1 Noninvasive sphygmomanorneters, EN 1060-3:1997+A2:2009 Non-invasive sphygmomanomelers. IEC80601-2-30 Part 2 Non-invasive sphygmomanometers.
- Blood pressure measurements determined with this device are equivalent to those obtained by a trained observer using the cuff/stethoscope auscultatory method, within the limits prescribed by the American National Standard, manual, electronic, or automated sphygmomanometers.
- The risk of patient and user can be lowered to an acceptable level.

Warranty Information

- The unit is guaranteed to be free of defects in workmanship and materials under normal use for a period of two years from the date listed on the purchase record.
- For repair under this warranty, our authorized service agent must be advised of the fault with the period of the warranty. This warranty covers parts and labor only under normal operations. Any defect resulting from natural causes, ex. flood, hurricane etc, is not within this guarantee. This guarantee does not cover damage incurred by use of the unit not in accordance with the instructions, accidental damage, or being tampered with or serviced by unauthorized service agents.
- Monitor subjected to misuse, abuse, and neglect of these manual content, non-instructional purposes: unauthorized repair or modifications will be excluded from this warranty.

⚠ The device is not repairable and contains no user serviceable parts.

EMC Declaration

IEC 60601-1-2 2014 ME EQUIPMENT and ME SYSTEMS identification, marking and documents for Class B product

Instructions for use

The ME EQUIPMENT or ME SYSTEM is suitable for home health care environments and so on.

Warning Do not use near active HF surgical equipment and the RF shielded room of an ME system for magnetic resonance imaging, where the intensity of EM disturbances is high.

Warning Use of this equipment adjacent to or stacked with other equipment should be avoided because it could result in improper operation. If such use is necessary, this equipment and the other equipment should be observed to verify that they are operating normally.

Warning Use of accessories, transducers and cables other than those specified or provided by the manufacturer of this equipment could result in increased electromagnetic emissions or decreased electromagnetic immunity of this equipment and result in improper operation."

Warning Portable RF communications equipment (including peripherals such as antenna cables and external antennas) should be used no closer than 30 cm (12 inches) to any part of the blood pressure monitor, including cables specified by the manufacturer. Otherwise, degradation of the performance of this equipment could result.

If any a list of all cables and maximum lengths of cables (if applicable), transducers and other ACCESSORIES that are replaceable by the RESPONSIBLE ORGANIZATION and that are likely to affect compliance of the ME EQUIPMENT or ME SYSTEM with the requirements of Clause 7 (EMISSIONS) and Clause 8 (IMMUNITY). ACCESSORIES may be specified either generically (e.g. shielded cable, load impedance) or specifically (e.g. by MANUFACTURER and EQUIPMENT OR TYPE REFERENCE).

If any the performance of the ME EQUIPMENT or ME SYSTEM that was determined to be ESSENTIAL PERFORMANCE and a description of what the OPERATOR can expect if the ESSENTIAL PERFORMANCE is lost or degraded due to EM DISTURBANCES (the defined term "ESSENTIAL PERFORMANCE" need not be used).

EMC Declaration

Technical description

1. All necessary instructions for maintaining BASIC SAFETY and ESSENTIAL PERFORMANCE with regard to electromagnetic disturbances for the excepted service life.
2. Guidance and manufacturer's declaration -electromagnetic emissions and Immunity

Table 1

Guidance and manufacturer's declaration - electromagnetic emissions	
Emissions test	**Compliance**
RF emissions CISPR11	Group 1
RF emissions CISPR 11	Group 2
Harmonic emissions IEC 61000-3-2	Group 3
Voltage fluctuations / flicker emissions IEC 61000-3-3	Group 4

EMC Declaration

Table 2

Guidance and manufacturer's declaration - electromagnetic Immunity		
Immunity Test	**IEC 60601-1-2 Test Level**	**Compliance level**
Electrostatic discharge (ESD) IEC 61000-4-2	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air	±8 kV contact ±2 kV, ±4 kV, ±8 kV, ±15 kV air
Electrical fast transient/burst IEC 61000-4-4	Power supply lines ±2 kV 100 kHz repetition frequency	Power supply lines ±2 kV 100 kHz repetition frequency
Surge IEC 61000-4-5	line(s) to line(s) ±0,5kV ±1 kV.	line(s) to line(s) ±0,5kV ±1 kV.
Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11	0% 0,5 cycle At 0°, 45°, 90~ 135°, 180° 225°, 270°and 315° 0% 1 cycle And 70% 25/30 cycles Single phase: at 0 0% 250 cycle 50Hz	0% 0,5 cycle At 0°, 45°, 90~ 135°, 180° 225°, 270°and 315° 0% 1 cycle And 70% 25/30 cycles Single phase: at 0 0% 250 cycle 50Hz
Power frequency magnetic field IEC 61000-4-8	30 A/m 50Hz/60Hz	30 A/m 50Hz/60Hz
Conduced RF IEC61000-4-6	150KHz to 80MHz 3Vrms 6Vrms (in ISM and amateur radio bands) 80% Am at 1kHz	150KHz to 80MHz 3Vrms 6Vrms (in ISM and amateur radio bands) 80% Am at 1 kHz
Radiated RF IEC61000-4-3	10V/m 80 MHz - 2,7 GHz 80% AM at 1 kHz	10V/m 80 MHz - 2,7 GHz 80% AM at 1 kHz
NOTE U_t is the a.c. mians voltage prior to application of the test level.		

EMC Declaration

Table 3

Guidance and manufacturer's declaration - electromagnetic Immunity							
	Test Frequency (MHz)	**Band (MHz)**	**Service**	**Modulation**	**Modulation (W)**	**Distance (m)**	**Immunity Test Level (V/m)**
Radiated RF IEC61000-4-3 (Test specifications for ENCLOSURE PORT IMMUNITY to RF wireless communications equipment	385	380 -390	TETRA 400	Pulse modulation 18 Hz	1,8	0,3	27
	450	430 -470	GMRS460, FRS 460	FM ±5 kHz deviation 1 kHz sine	2	0,3	28
	710	704 -787	LTE Band 13, 17	Pulse modulation 217 Hz	0,2	0,3	9
	745						
	780						
	810	800 -960	GSM 800/900, TETRA 800, iDEN 820, CDMA850, LTE Band 5	Pulse modulation 18 Hz	2	0,3	28
	870						
	930						
	1720	1700 -1990	GSM 1800; CDMA 1900; GSM 1900; DECT; LTE Band 1, 3, 4, 25; UMTS	Pulse modulation 217 Hz	2	0,3	28
	1845						
	1970						
	2450	2400 -2570	Bluetooth, WLAN, 802.11 b/g/n, RFID 2450, LTE Band 7	Pulse modulation 217 Hz	2	0,3	28
	5240	5100 -5800	WLAN 802.11 a/n	Pulse modulation 217 Hz	0,2	0,3	9
	5500						
	5785						

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Shenzhen Urion Technology Co., Ltd.
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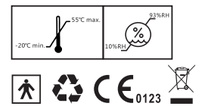
EC REP Eu representative
Shanghai International Holding Corp. GmbH (Europe)
Eiffestrasse 80, 20537 Hamburg, Germany



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