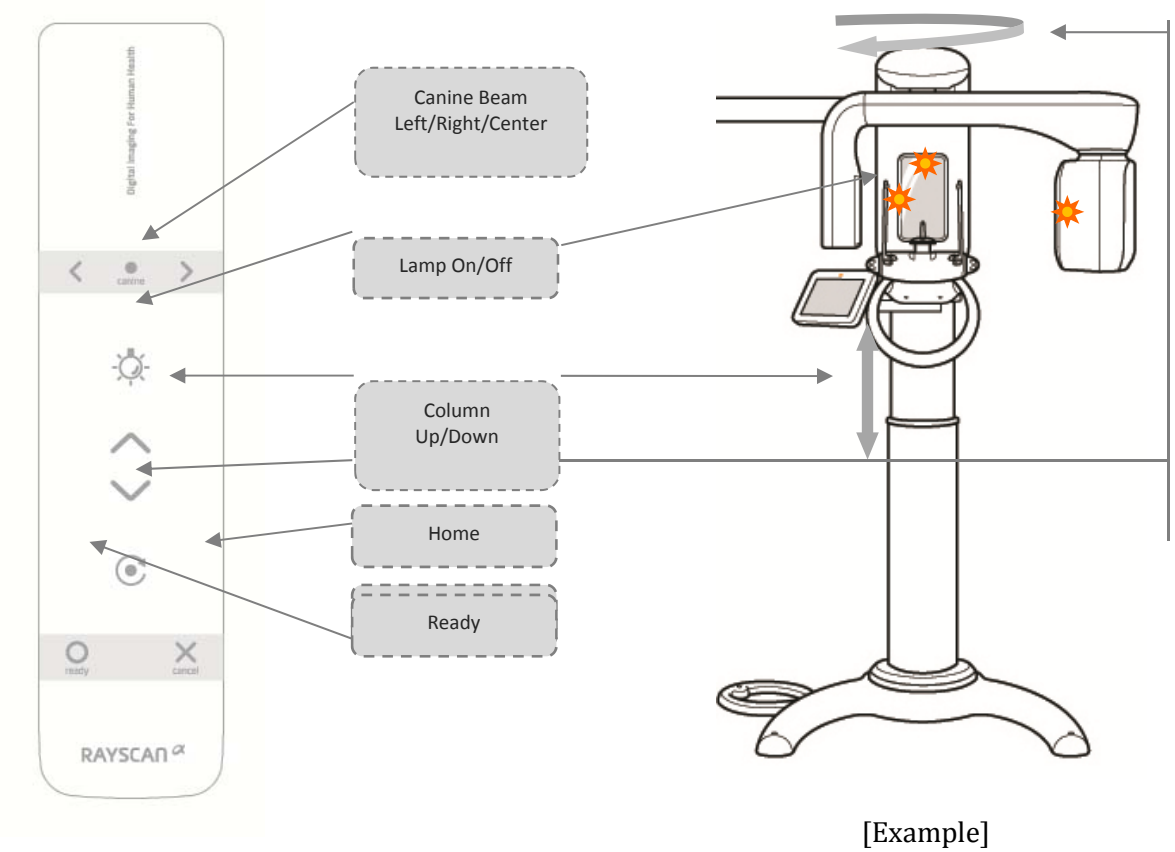
RSA-4000 Manual

1. Description



[Example]

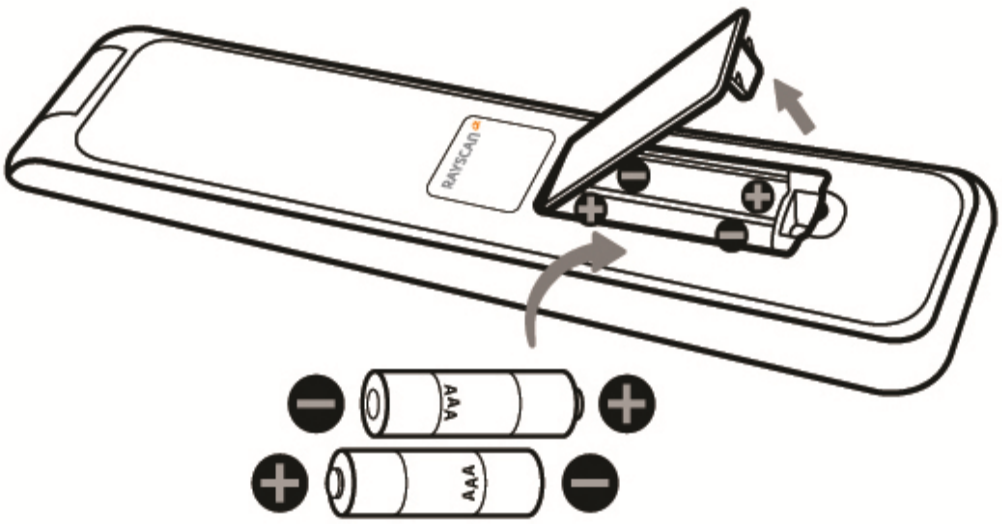
- **Remote controller can control 9 motions.**
  - [Lamp] Button : Turns on/off the laser beam.
  - [Column Up] Button : Height of system rises when pressed.
  - [Column Down] Button : Height of system lowers when pressed.
  - [Home] Button : Location of device initialize.
  - [Canine Left] Button : Move canine beam forward.
  - [Canine Center] Button : Move canine beam at center.
  - [Canine Right] Button : Move canine beam rear.
  - [Ready] Button : Scanner ready button
    When clicked, system moves to the starting position for scanning.
  - [Cancel] Button : Cancel button
    Touch to cancel scanning, close scanning screen and return to the Splash screen

2. How to insert batteries in the remote control

① Open the cover on the back side, as seen in the image below.

② Prepare two AAA size 1.5V batteries, check +/- and insert.

③ Close the cover.



Warning

Since remote control is usable from long distance(dozens of meters), do not press the button when device is out of sight for safety. Also use the remote control while the device is in sight.

If you are not using the remote control for a long time, please remove the batteries

3. FEATURES

RF Transceiver

- Single-chip 2.4GHz ZigBee RF Transceiver module
- Low Power Consumption
- Operation Voltage : 3.0 Vdc
- high Sensitivity (-98dBm)
- On-chip VCO, LNA, and PA
- Programmable Output Power Max. 5dBm
- O-QPSK Modulation
- Scalable Data Rate: 250Kbps
- RSSI Measurement
- Compliant to IEEE802.15.4

8051-Compatible Microcontroller

- 8051 Compatible Microcontroller
- 96KB Embedded Flash Memory
- 8KB Data Memory
- 128-byte CPU dedicated Memory
- 1KB Boot ROM
- 24 General Purpose I/Os
- On-chip Power-on-Reset
- 4-channel 12-bit ADC
- ISP (In System Programming)
- Internal Temperature Sensor

Clock Inputs & Power

- 16MHz Crystal for System Clock
- Separate On-chip Regulators for Analog and Digital Circuitry
- Power Supply Range for Internal Regulator
- Battery Monitoring Support

4. SPECIFICATION

1) Description

Item	Description
Application	Transceiver Module
Frequency Range	2.425 ~ 2.470 GHz (ISM Band)
I/O Supply Voltage	3 V (1.9 V ~ 3.3 V)
Current	50 mA
Operating Temperature	0 ~ 40 ℃
Standard Spec.	IEEE802.15.4
Size	212 x 53 x 15 mm

2) Electrical specifications

Parameter	Min	Typ	Max	Unit
RF Frequency Range	2425		2470	MHz
RF Bandwidth		2		MHz
Channel Bandwidth		5		MHz
RF Output Power		5		dBm
Receiver Sensitivity (PER≤1%, Packet length of 22-byte) Normal mode (250 kbps)		-98		dBm
Maximum Input Level			10	dBm
Current : RF Receive Mode		35		mA
Current : RF Transmit Mode		45		mA
Current : Sleep Mode		25	90	uA

5. Contact Information

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FCC Statement

Federal Communication Commission Interference 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 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.

FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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.

This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.

IMPORTANT NOTE:

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.