

# RC085

## Professional UHF Digital Tour Guide System

We are committed to cutting-edge UHF digital technology, eliminating communication barriers. As an industry leader, the RC085, with its extreme stability and clear sound quality, builds a seamless information transmission network for professional scenarios worldwide.

### Accurate Frequency Modulation

32-bit digital audio decoding

### Anti-interference

Adaptive frequency hopping technology

### Long Battery Life

24-hour continuous working time

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# PRODUCT INTRODUCTION

## OVERVIEW

The RC085 is a professional UHF-band digital tour guide system with 100-channel capacity, engineered for superior audio clarity and stable performance in large-scale events and industrial sites.

## CORE TECHNOLOGY

### UHF 470-510MHz Band

Exceptional anti-interference and penetration for complex indoor/outdoor environments.

### 100 Independent Channels

Zero cross-talk enables simultaneous multi-group operation for large events.

### F1/F2 Dual-Mode

Switch between one-way guiding and two-way management for diverse needs.

### Digital LCD Display

Real-time monitoring of channel, battery, and signal for hassle-free control.

## SCENARIOS

Suitable for corporate seminars, museum guided tours, international conferences, and factory site visits.



## KEY BENEFITS

Crystal-clear audio ensures information is conveyed accurately, enhancing audience engagement and operational efficiency.

# 2. PRODUCT FEATURES

## Wireless Transmission

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**Frequency Band & Distance:**470-510 MHz UHF digital band ensures robust propagation up to 200 meters in open space, with excellent building penetration for reliable coverage.

**Anti-interference Stability:**Digital PLL synthesis technology eliminates noise and interference from lower frequency bands, delivering crystal-clear audio.

## Multi-Frequency Stable

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**Dense Channel Capacity:**100 selectable channels with a 250KHz grid allow numerous systems to operate concurrently without cross-talk.

**Data Security:**Advanced digital encryption prevents eavesdropping, making it ideal for confidential tours or corporate meetings.

## One Button Synchronization

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**Hassle-free Deployment:**One-touch pairing enables all receivers to instantly lock onto the transmitter's channel, drastically reducing setup time.

**Dual Guide Support:**Unique F2 mode supports two transmitters, facilitating bilingual tours or two-way interactive communication.

## Long Time Standby

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**Extended Battery Life:**Transmitter lasts up to 12 hours, receiver up to 20 hours on a single charge, sufficient for full-day events.

**Smart Power Management:**Intelligent wake-up and sleep modes automatically optimize power consumption when not in use.



### Field Application Scenario

The RC085 system has been successfully applied in numerous real-world scenarios, demonstrating its reliability in the field.

# 3. TECHNICAL SPECIFICATIONS

Parameter	Transmitter	Receiver
Frequency	470-510 MHz	470-510 MHz
Channels / Channel Grid	100 Channels / 250 KHz	100 Channels / 250 KHz
Switching Bandwidth	12 MHz	12 MHz
Operational Distance	1 - 200 m (Line of Sight)	1 - 200 m (Line of Sight)
Output Power / Sensitivity	8-10 mW / ~-102 dBm	8-10 mW / ~-102 dBm
Audio Frequency Range	50 Hz - 12 KHz	50 Hz - 12 KHz
Battery & Work Time	Li-battery / ~12 hours	Li-battery / ~20 hours
Physical Attributes	~52 g / Black, Iron Grey	~52 g / Black, Iron Grey

Specifications are subject to change without prior notice. Contact us for customized configurations.

# 4. USER MANUAL (Quick Guide)

## Power On/Off

Slide the switch to 'ON' to activate; the LCD screen displays channel and battery status. Slide to 'OFF' to shut down the device completely.

## One-key Sync (F1 Mode)

Ensure all receivers are powered on. Set the transmitter to your target channel; receivers will auto-sync to this channel within seconds.

## Volume Adjustment

Use the '▲' (Up) and '▼' (Down) buttons on the receiver. The volume scale ranges from 0 (mute) to 9 (maximum) for precise audio control.

## F2 Dual Guide Mode

Toggle F1/F2 by holding 'FUN' + Power. In F2, assign 'Main'/'Vice' roles to two transmitters for simultaneous multi-person commentary.

## Channel Selection

Press and hold 'FUN' + '▲' for 1 second to enter mode. Navigate through channels using the '▲' or '▼' keys to find your desired frequency.

## Operational Tips

Keep devices within line of sight for best sync. Low battery may cause signal instability; recharge when the LCD indicator flashes red.

# 5. ACCESSORIES

## TRANSMITTER MICS

### Standard Headset (30g)

Engineered for extended wear comfort with a lightweight frame, ideal for all-day speaking engagements and performances.

### Collar Microphone (20g)

Ultra-discreet and fully hands-free, offering clear audio capture while remaining hidden from view for broadcast or theater use.

Both options ensure minimal interference and maximum speech clarity in professional environments.

## RECEIVER EARPIECES

### Standard Earphone (14g)

A versatile, low-profile in-ear design suitable for general monitoring tasks and casual listening scenarios.

### D-Shape & Headset (17g/45g)

Ergonomic D-shape for enhanced fit, or over-the-head style for superior passive noise isolation in loud venues.

Select the right fit to match the acoustic environment and user preference for optimal monitoring.

## CHARGING SOLUTIONS

Robust aluminum alloy cases provide secure storage, rapid charging, and easy transport for fleets of devices.



# 6. COMPANY INFORMATION

## Shenzhen Rich Age Electronics Co., Ltd.

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### Factory Scale & Core Capabilities

Spanning 21,300 m<sup>2</sup> with a 13,000 m<sup>2</sup> production plant, we operate 10 PCBA SMT lines, 4 assembly lines, and 2 packaging lines. Our team of over 400 skilled workers, including 30+ R&D professionals, ensures industry-leading manufacturing efficiency.

### Global Compliance & Quality Standards

Committed to excellence, we hold ISO9001 quality certification. Our products meet international safety standards (CE, RoHS, FCC, 3C) and adhere to BSCI social compliance, guaranteeing reliability for global markets.

### Innovation & Intellectual Property

We drive progress through R&D, holding more than 90 invention patents that fuel our technological edge and product differentiation in the electronics sector.



Our automated SMT production workshop is equipped with state-of-the-art machinery, enabling precision manufacturing and consistent delivery of high-quality electronic components.

# 7. ABOUT US

## Core Business & Positioning

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Established in 2007, we are a national high-tech enterprise specializing in wireless tour guide systems, church simultaneous interpretation headsets, and museum intelligent tour guide devices. We have deep expertise in audio transmission technology and are committed to providing professional sound solutions to global customers.

## Full Supply Chain Integration

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We have an 8,500m<sup>2</sup> modern standard factory building, integrating R&D, design, production, and sales. With automated production lines and strict quality control, we can quickly respond to OEM/ODM customization needs, ensuring delivery accuracy and efficiency.

## Global Recognition & Market Reach

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Our products are sold in over 100 countries and regions worldwide. In February 2012, our equipment successfully served the United Nations Conference, the highest-level certification of our product reliability.



From modern office environments to automated production workshops, we take professional hardware facilities as the cornerstone to continuously deliver high-quality audio tour guide products, connecting every corner of the world.

# 8. CONTACT US

Shenzhen Rich Age Electronics Co., Ltd.

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