

# UHF PLL Wireless Systems

## **INSTRUCTION MANUAL**



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Thank you for choosing the wireless system. In order to obtain the best efficiency from the system, you are recommended to take few minutes to read this instruction manual carefully.

# 1. Important Cautions

- 1-1 Always make all connections before plugging the unit into an AC power outlet.
- 1-2 Do not leave the devices in a place neither with high temperature nor high humidity.
- 1-3 Always do not handle the power cord with wet hands !
- 1-4 Keep the devices away from fire and heat sources.

## 2. Features

- \* Operated in UHF band where there is less RF interference than the VHF band.
- \* Due to the PLL synthesized technology, the system can offer up to 161 selectable frequencies for choosing simultaneously.
- \* The true diversity reception with 2 independent RF receivers ensure the stable transmission and reception.
- \* Adjustable Pilot tone squelch control can effectively reduce the noise.
- \* Tuned antennas can benefit the stable RF reception.
- \* Built-in Noise Squelch circuitry & Mute function are available to restrain the interference for signals.
- \* Compact half-rack receiver design is considerable for the space saving.
- \* Rugged metal housing can pass through the difficult environment.
- \* Equipped with balanced XLR and unbalanced output allow great convenience.
- \* Anti-interference design is available to work with every computer device.

## 3. Specification

### 3-1 Overall System Specification

|                                 |                             |
|---------------------------------|-----------------------------|
| <b>RF Frequency Range</b>       | 600MHz~960MHz               |
| <b>Oscillation Type</b>         | PLL Synthesized Control OSC |
| <b>Channels</b>                 | 193 Channels                |
| <b>Audio Frequency Response</b> | 50Hz~18KHz                  |
| <b>Operation Range</b>          | 100M                        |

### 3-2 Receiver

|                             |                                               |
|-----------------------------|-----------------------------------------------|
| <b>Band-width</b>           | 24MHz                                         |
| <b>Frequency Stability</b>  | $\pm 0.005\%$                                 |
| <b>S/N Ratio</b>            | > 100dB(1KHz-A)                               |
| <b>RF Sensitivity</b>       | -107dB (12dB S/N AD)                          |
| <b>Image Rejection</b>      | > 60dB                                        |
| <b>T.H.D.(1KHz)</b>         | < 0.6% @1KHz                                  |
| <b>AF Output Impedance</b>  | 600 $\Omega$                                  |
| <b>Audio Output Level</b>   | -12dB                                         |
| <b>Noise Reduction Type</b> | Noise Mute & Pilot tone                       |
| <b>Power Requirement</b>    | 12-18V DC, 600mA                              |
| <b>Output connector</b>     | Balanced XLR socket & Unbalanced 6.3mm socket |
| <b>Dimension</b>            | 211mm(W)*40mm(H)*152mm(D)                     |

### 3-3 Handheld Transmitter

|                             |                    |
|-----------------------------|--------------------|
| <b>Frequency Stability</b>  | $\pm 0.005\%$      |
| <b>Modulation Deviation</b> | $\pm 48\text{KHz}$ |
| <b>Spurious Rejection</b>   | <-60dBc            |
| <b>RF Output</b>            | 10mW               |
| <b>Current Consumption</b>  | 100mA              |
| <b>Operation Voltage</b>    | UM3, AA 1.5V *2    |
| <b>Housing Material</b>     | Alloy              |

### 3-4 Body-pack Transmitter

|                             |                    |
|-----------------------------|--------------------|
| <b>Frequency Stability</b>  | $\pm 0.005\%$      |
| <b>Modulation Deviation</b> | $\pm 48\text{KHz}$ |
| <b>Spurious Rejection</b>   | $< -60\text{dBc}$  |
| <b>RF Output</b>            | 50mW               |
| <b>Current Consumption</b>  | 100mA              |
| <b>Operation Voltage</b>    | UM3, AA 1.5V *2    |
| <b>Output Connector</b>     | Mini XLR socket    |
| <b>Housing Material</b>     | Alloy              |

### 3-5 Condenser Microphone

| <b>Type</b>                  | Lavalier                      | Headset                       |
|------------------------------|-------------------------------|-------------------------------|
| <b>Frequency Range</b>       | 100Hz~12,000Hz                | 50Hz~18,000Hz                 |
| <b>Polar Pattern</b>         | Cardioid                      | Cardioid                      |
| <b>Sensitivity(at 1 kHz)</b> | $-70\text{dB} \pm 3\text{dB}$ | $-70\text{dB} \pm 3\text{dB}$ |
| <b>Impedance</b>             | $2\text{k}\Omega \pm 30\%$    | $680\ \Omega \pm 30\%$        |
| <b>Max SPL for 1%THD</b>     | 130dB                         | 130dB                         |
| <b>Connector type</b>        | Mini XLR                      | Mini XLR                      |
| <b>Standard Accessories</b>  | Windscreen                    | Windscreen                    |