

TRUE DIVERSITY

WIRELESS SYSTEMS

UHF 800 MHz — 806 MHz

## UR1 Receiver

- Multi-segment, 3-color RF level meter indicates strength of signal being received.
- Audio Peak LED shows when incoming signal is clipping.
- Receiver A/B LEDs indicates which receiver is currently operating.
- AF level control adjusts the signal level for both balanced and unbalanced outputs on rear panel.
- Power On/Off switch with status LED.
- Squelch control sets minimum threshold level for carrier signal to eliminate unwanted noises and RF interference.
- Tuned molded antennas for better reception.
- Rear-panel balanced XLR and unbalanced 1/4" outputs with a mic/line output level switch.

The Samson UHF Series One system was designed to provide the highest level of wireless performance at affordable prices. Fully professional, UHF Series One operates in the 800-805 MHz "clear sky" UHF bandwidth. The receiver features a True Diversity design with two independent receivers, S.A.W. (Surface Acoustic Wave) technology and built-in tuned, molded antennas for the most stable RF reception possible. Housed in a sleek one space, half rack package, it has a front-panel with RF level meter, Squelch control, Peak audio LED and Power switch. It also has both a balanced XLR output (mic/line switchable) and unbalanced 1/4" output.



## UH1 Handheld / UT1 Beltpack Transmitter

- Multicolored 3-segment "Battery-Life" LED meter.
- Externally-mounted Audio On/Off switch mutes audio without pops or thumps.
- Internal Audio Input Level trimpot.
- Attached pigtail antenna on beltpack.
- Rotating beltclip allows vertical or horizontal positioning.

Unique Series One features include a compact "beeper-size" beltpack design and 3-segment LED "battery-life" meter on both beltpack and handheld transmitters that indicates when the battery is running low. Patent-pending direct PLL (Phase-Lock Loop) and dielectric resonance transmitter technology lock in the signal to ensure stable transmission. The UHF Series One system is available with the popular Samson QMIC vocal mic and QE an QV headset mics, along with a variety of other microphone elements. Two UR1 receivers can be mounted in a 1U rack space with the optional DR2 Rack Adaptor.

Contact:

## ARCHITECT'S & ENGINEER'S SPECIFICATION

The Samson Series One UHF Wireless System shall be of a single-channel, Phase-Lock Loop oscillator type operating on selected frequencies from 800-805 MHz. The System shall include a beltpack or handheld Transmitter and a Receiver, and shall allow operation of at least six simultaneous systems on separate channels. The Transmitter and Receiver shall incorporate compander circuitry for noise reduction and maximum dynamic range.

The Receiver shall provide a balanced and unbalanced microphone-level output on an XLR connector and 1/4" phone connector respectively. The audio output level shall be adjustable with a variable attenuator. The Receiver shall incorporate a power LED and dual LEDs for carrier indication. The Receiver shall have an automatic signal sensing squelch circuit with a variable attenuator. The Receiver shall incorporate True Diversity circuitry for automatic antenna switching. The Receiver shall use two tuned, molded 1/4 wave rod antennas. The Receiver shall be powered by 115 VAC, 50/60 Hz via a supplied 12 VDC adapter. The Receiver shall be notified under FCC rules, Part 15, and DOC certified under RSP 121. Dimensions of the Receiver shall be 9.8" (218 mm) wide, 5.2" (133 mm) deep and 1.7" (42 mm; one rack space) high. Weight of the Receiver shall be 13.6 oz. (385 g).

The Transmitter shall provide either a microphone-level input on a Switchcraft TA3F P3-type connector or an instrument-level input on a 1/4" phone connector. The beltpack audio input sensitivity or handheld microphone output level shall be adjustable with a variable attenuator. The Transmitter shall incorporate a three-segment battery life LED meter and the handheld transmitter shall use an internal dipole antenna while the beltpack transmitter shall use a attached pigtail antenna. The Transmitter shall be powered by a 9 V alkaline battery and shall provide a nominal battery life of not less than 12 hours. The Transmitter type shall be accepted under appropriate FCC rules. Dimensions of the beltpack Transmitter shall be 2.3" (59 mm) wide, 3.2" (81 mm) deep and 0.94" (24 mm) high. Weight of the beltpack Transmitter shall be 3.1 oz. (88 g). The System shall carry a three-year warranty.

The System shall be a SAMSON UHF SERIES ONE WIRELESS SYSTEM.

## UHF SERIES ONE SPECIFICATIONS

### System Specifications

Channels:	6 (for simultaneous use)
Frequency Type:	F3
Modulation Type:	FM
Noise Reduction Type:	Compander
Distance:	300 ft.

### Transmitters (UH1, UT1L, UT1G)

Oscillation Type:	Direct PLL
Pre-emphasis:	50 µsec Antenna 1/4 Wave Integral Antenna
UH1:	1/4 Wave Length Wire (Pig Tail)
UT1L/UT1G:	TB3M QG (Mini XLR) Connector
Input (UT1L):	3 V p-p
Maximum Input Level:	Duracell MN 1604 9-volt alkaline
Battery:	Power On/Off, Audio On/Off
Switches/Controls:	UH1: AF Level UT1L/UT1G: AF Level
Display (LED):	Battery Low/Mid/High (<5.3V/5.3-7V/7V)
Operating Voltage:	9 Volts +20%/-40%
Current Consumption:	47 mA
RF Power:	10 mW
Frequency Stability:	+ 20 kHz
Spurious Ratio:	2.5 nW
Deviation:	20 kHz (16.5 kHz-23.5 kHz)
T.H.D. (Typical):	0.5%
AF Frequency Response:	50 Hz - 15 kHz (± 3 dB overall)
Battery Life:	12 Hours

### Receiver (UR1)

Oscillation Type:	Crystal Controlled
D-emphasis:	50 µsec
IF Frequency:	10.7 MHz
Antenna:	1/4 Wavelength Rod
In/Out:	DC Inlet, Balanced Output, Unbalanced Output
Display (LED):	Antenna A/B (Green), Power On (Red), Peak (Yellow), RF Level (5 pc)
Level Controls:	Volume, Squelch
Operating Voltage:	12 Volts + 10 %
Current Consumption:	170 mA (at all LED lights)
Receiving Frequency Range:	801 - 805 MHz
Sensitivity:	18 dBµ @ THD 2%
Squelch Sensitivity:	0 - 40 dBµ (Adjustable)
Selectivity:	± 150 kHz (AF Out Ratio -60 dB)
S/N Ratio (Overall):	90 dB (w/ IHF-A filter)
Residual Noise:	90 dBv (w/ IHF-A filter)
Band Mute:	± 50 kHz / ± 100 kHz (RF IN: 46 dBu EMF)
AF Frequency Response:	50 Hz - 15 kHz (± 3 dB overall)
Audio Output Level - Unbalanced:	0 dBv
Audio Output Level - Balanced:	-20 dBm (Line), -40 dBm (Mic) Switch Selectable
Audio Output Impedance/Unbalanced:	5 k Ohms
Audio Output Impedance/Balanced:	600 Ohms

### Dimensions:

Receiver (w antennas):	8.5" (w) x 3.4" (d) x 1.7" (h) 216 mm (w) x 86 mm (d) x 42 mm (h)
Transmitter (UT1L/UT1G):	2.3" (w) x 3.2" (d) x .94" (h) 59 mm (w) x 81 mm (d) x 24 mm (h)
Transmitter (UH1):	varies with mic type

### Weight:

Receiver (including antennas):	9.2 oz. / 261 g
Transmitter (UT1L/UT1G):	3.1 oz. / 88 g
Transmitter (UH1):	varies with mic type

### Accessory:

DR2 Dual Rack adaptor (houses 2 UR1 Receivers)	1U space
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DR2 Dual Rack Adaptor