

Telex USR-100

Specifications

RF Frequency Range: 668.0 to 746.0 MHz

Channels: 100 (0-99) (within TV Ch. 47/48 & 58/59)

R.F Stability: 0.005% or better

Modulation Type: FM, 40 KHz nominal

Type: Single Conversion, 10.7 MHz I.F

I.F Bandwidth: 180 KHz at -3 db points

Image Rejection: 65dB or better

Squelch: 31.250 KHz Tone + RSSI Amplitude

Audio Output: Level, 0.775V RMS/100k load -20 dBV, 600 Ohm load

Receiver Sensitivity: Less than 0.8 uV for 12 dB SINAD

Diversity: Full Time True Diversity (Patent Pending)
Both antennas are fully employed at all times to maximize signals

RF Selectivity: Frequency tracking ceramic resonator front end

Signal-to-Noise Ratio: 104 dB

Approvals: FCC, Notification, Part 15

Dimensions: 1 3/4" H x 7 1/2" W x 7 1/8" D

Weight: 1 lb. 8 oz.

Part Number: 7122900X

Telex LT-100

Specifications

Purpose: The Telex Model LT-100 Transmitter is intended for use with the Telex Model USR-100 Receiver. The two units form a Professional Wireless Microphone System operating within Television Channels 47/48 and 58/59.

Frequency of Operation: 668.000 to 746.000 MHz (Current models operate in 2 frequency ranges) 668.100 to 679.500 MHz and 734.100 to 745.500 MHz

Number of Channels: 100 User Selectable Channels in each range

Power Output (Terminated): 10mW, High switch setting, 1.0 mW Low

Antenna: Permanently attached

Modulation: FM, \pm 40 KHz Deviation, 50 μ s pre-emphasis

Frequency Response (System): 50 Hz to 15000 Hz

Microphone: Dynamic or Electret, +5 VDC Bias

Tone Squelch: Full time, 31,250 Hz

DC Power: 2 AA Size Alkaline Batteries

Battery Life: Up to 9 Hours High Position, 12 Hours Low

Battery Indicator: 4 segment indicator, Test Switch

Approvals: FCC, Part 74H
Industry Canada, RSS123

Dimensions: 4" H x 2 3/4" W x 1" D

Weight: 4 oz.

Part Number: 7122500X

Telex SH-100

Specifications

Purpose: The Telex Model SH-100 Transmitter is intended for use with the Telex Model USR-100 Receiver. The two units form a Professional Wireless Microphone System operating within Television Channels 47/48 and 58/59.

Frequency of Operation: 668.000 to 746.000 MHz (Current models operate in 2 frequency ranges) 668.100 to 679.500 MHz and 734.100 to 745.500 MHz

Number of Channels: 100 User Selectable Channels in each range

Power Output (Terminated): 10mW, High switch setting, 1.0 mW Low

Antenna: Permanently attached

Modulation: FM, \pm 40 KHz Deviation, 50 μ s pre-emphasis

Frequency Response (System): 50 Hz to 15,000 Hz

Microphone: Dynamic or Electret

Tone Squelch: Full time, 31,250 Hz

DC Power: 2 AA Size Alkaline Batteries

Battery Life: Up to 9 Hours High Position, 12 Hours Low

Battery Indicator: 4 segment indicator, Test Switch

Approvals: FCC, Part 74H
Industry Canada, RSS123

Dimensions: Electret: 1.35 nominal diameter 9 1/2" long, Dynamic: 10" long

Weight: 8 oz.

Part Number: 7122300X (Model SH-100/CE8 with Telex cardioid electret mic element)

Part Number: 7122100X (Model SH-100/OM-3 with Audix cardioid dynamic mic element)

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Telex®

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Wireless Microphone System

USA-100

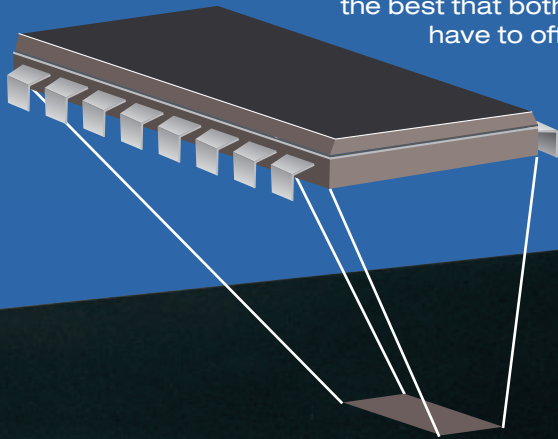


Telex®

USR¹⁰⁰ Telex[®]

Programmable Integrated Circuit (PIC[®]) Microprocessor

The heart of the USR-100 receiver is an on-board Programmable Integrated Circuit (PIC[®]) Microprocessor. This PIC performs unprecedented functions in a wireless microphone receiver, and allows the marriage of digital precision with real analog sound to provide the best that both technologies have to offer.



Automatic Self Tuning

The Voltage Controlled Oscillator (VCO) is the key component in any Phase Lock Loop (PLL) Receiver. In the USR-100, the VCO is controlled by the PIC processor. Each individual USR-100 receiver front-end, which includes the Radio Frequency (RF) stage tuning elements, is under the direct control of the PIC processor. This allows every USR-100 receiver to undergo an Automatic Self Tuning stage before it leaves the Telex factory.

The tuning range of each individual USR-100 is established upon initial power up. Each of the available 100 channels then undergoes a tuning process, and this information is permanently stored in non-volatile memory, available for immediate recall. This is unlike most units on the market that simply have "wide band" front-end designs that allow interference to enter the most sensitive stages of the receiver—thereby allowing intermodulation and noise to enter and degrade overall performance.

Metering

All metering functions on the USR-100 are controlled by the PIC processor. These include audio level, RF signal strength, diversity phase relationship, channel selection, channel spacing, and display indicators.



Telex USR-100

Posi-Phase™ II Smart Diversity

Posi-Phase™ diversity technology has been the key feature that sets Telex wireless microphone products apart from other wireless manufacturers. The USR-100 has taken this technology to a new level with our new Posi-Phase II smart diversity circuitry. This circuit is also controlled by the PIC processor, and uses a unique “floating comparator” that enables the signal strength from both antennas (always active) to be monitored closely for precise, quick diversity response.

Frequency Agility

The USR-100 features a unique pair of UP-UP channel slewing buttons that allow rapid selection. The 100 available channels cover a full 12 MHz, virtually assuring multi unit performance in even the harshest of RF environments. The large readout display is active at all times, thereby allowing instant channel verification at a glance.

Dual Squelch Circuitry

The USR-100 features industry exclusive Telex Posi-Squelch™ III Auto Suppression. This circuit acts as a dual insurance policy against unwanted noise and interference. First, a tone code detector on the USR-100 will only open to the modulated tone of the LT or SH -100 transmitter. Second, a true noise squelch allows only real RF signals to enter the receiver—not noise!

Antennas

There are two TNC type antenna connectors on the rear panel. These connectors are superior to the more common BNC connectors, both electrically and mechanically, especially in the UHF environment. Supplied quarter wave antennas mount on the rear of the receiver, and are suitable for normal applications. Additionally, half wave performance antennas are available for remote mounting, and log periodic high performance antennas are available for extreme applications.

Rack Mounts

A rack kit is included with the USR-100, that will allow for mounting either single or dual receivers into one rack space. Additionally, an optional front mount adapter kit is available to allow antenna attachment directly to the front rack panels.

Audio Output

A balanced XLR type connector on the rear panel provides either mic or line level audio output (selectable by a slide switch). A recessed level adjustment control provides precise, accurate audio levels.



Portable UHF Beltpack Transmitter

Telex LT-100

The LT-100 transmitter is a compact, rugged beltpack designed to meet the needs of most any wireless user. It features 100 tunable channels, selectable hi/low power output, and adjustable mic gain. Tone coded squelch allows for single toggle type switch operation. 2 AA alkaline batteries provide up to 12 hours continuous use. Four segment indicator displays battery level at the push of a button. Charge contacts on the bottom of the unit allow for use with Telex BC-100 drop in charger (for use with NiCad type rechargeable batteries).



Handheld UHF Transmitter

Telex SH-100

The SH-100 transmitter is a full featured, elegantly styled handheld microphone transmitter. It features 100 tunable channels, selectable hi/low power output, and adjustable mic gain. Tone coded squelch allows for single toggle type switch operation. 2 AA alkaline batteries provide up to 12 hours continuous use. Four segment indicator displays battery level at the push of a button.

