



**Configuration:**

LT-82-01  
Stationary IR  
Transmitter  
(North  
America)\*  
  
LT-82-02  
Stationary IR  
Transmitter  
(Asia, UK)\*  
  
LT-82-03  
Stationary IR  
Transmitter  
(Euro)\*  
  
LT-82-04  
Stationary IR  
Transmitter  
(Australia)\*

\*01, 02, 03, and  
04 designation  
refers to  
international  
plug type (type  
B, G, C, and I)  
for the power  
supply.

**Product Overview:**

The ListenIR 1-Channel Transmitter (LT-82) is the heart of a stationary IR listening system. It takes the desired audio signal and transmits the signal via coaxial cable to one (1) or more IR radiator-emitters (LA-140). The LT-82 can be operated in mono or stereo on one (1) of four (4) different carriers; up to four (4) LT-82 units may be connected to provide up to four (4) mono or stereo carriers to the radiator(s). The LT-82 generates DC power to power up to two (2) LA-140 radiator-emitters. Two (2) LT-82 units can be rack mounted in a single rack space using the LA-326 rack mounting kit. The LT-82 is used for government compliance (such as ADA), assistive listening, language interpretation, live theatre, houses of worship, courtrooms, secure rooms and for auditory description.

**Highlights:**

- Secure wireless communication - ideal for applications where isolation of the signal is important
- Up to four (4) channels mono, or four (4) channels stereo - no need to sacrifice multiple channels to achieve stereo transmissions (one LT-82 is required for each channel)
- Transmitter can power two (2) radiator/emitters (LA-140) using CAT-5 cabling
- Easy to specify, install and use
- Outstanding performance - ensures crystal clear sound for listeners
- Limited Lifetime Warranty
- True stereo audio (left and right) is transmitted on a single carrier frequency

**Includes:**

One (1) LT-82 ListenIR 1-Channel Transmitter  
One (1) LA-205 30 VDC Extension/Replacement Power Supply for LA-140/LT-82  
One (1) LA-89 Interconnection Coaxial Cable  
One (1) Quick Reference Card

**Architectural Specification:**

The Stationary IR Transmitter shall be capable of broadcasting on four (4) mono or stereo carriers; 2.3, 2.8, 3.3 and 3.8 MHz. Channel Selection shall be capable of being locked. Multiple transmitters shall be capable of being daisy-chained together to transmit up to four (4) channels simultaneously. The transmitter shall have a timer that shuts off the carriers after 30 minutes when no audio is present at the transmitter. The transmitter shall have a SNR of 60 dB or better. The device shall have an audio frequency response of 63 Hz to 15 kHz, +/- 3db. It shall have two (2) mixing audio inputs, one (1) balanced XLR/phone input and one (1) unbalanced RCA input. The device shall have the following audio controls: input level, transmit level, contour level and stereo on/off control. The device shall have an audio processor that is capable of automatic gain control and limiting. The transmitter shall provide power for up to two (2) radiators over CAT-5 cable. The LT-82 is specified.

| Product Specification: ListenIR 1-Channel Transmitter |                                                                                                                                                                                                                                     |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Audio                                                 |                                                                                                                                                                                                                                     |
| System Distortion                                     | <2% total harmonic distortion (THD)                                                                                                                                                                                                 |
| Frequency Response                                    | 63 Hz - 15 kHz (+/- 3 dB)                                                                                                                                                                                                           |
| Audio Input 2                                         | Stereo or Mono Input (Rear Panel). Two (2) Phono connectors, unbalanced, -10/+10 dBu nominal input level adjustable, +30 dBu maximum, impedance 100k                                                                                |
| Audio Input 1                                         | Mono Input (Rear Panel). Female-XLR and 1/4 in. combo connector, balanced, 0/-55 dBu (line/mic) nominal input level adjustable; +21/-30 dBu (line/mic) maximum input level; impedance 20k/1k ohms (line/mic); phantom power +12 VDC |
| Contour                                               | Cuts and boosts frequencies above 5 kHz                                                                                                                                                                                             |
| Audio Processing                                      | Compression can be turned on/off.                                                                                                                                                                                                   |
| Monitor Output                                        | Front panel. One (1) 3.5 mm (0.14 in.) connector, unbalanced, adjustable output level, +7 dBu maximum, impedance 10 ohms. 100 mW, 32 ohms                                                                                           |
| Output/s                                              | Input 1 and Input 2 Mixed Output (Rear panel). Two (2) Phono connectors, unbalanced, -10 dBu nominal output level, +19 dBu maximum, impedance 10 ohms                                                                               |
| Signal-to-Noise Ratio                                 | Mono: >60 dB Stereo: >52 dB                                                                                                                                                                                                         |
| Controls                                              |                                                                                                                                                                                                                                     |
| Internal Adjustments                                  | Compression ratio for audio processor. Slope adjustable from 1:1 to 4:1. Default 2:1                                                                                                                                                |
| Rear Panel                                            | Input 1 Level (Line, Mic, Mic-Phantom Power), Input 2 Level (-10/+10 dBu)                                                                                                                                                           |
| Programming                                           | Stereo on/off, Processing on/off                                                                                                                                                                                                    |
| Front Panel                                           | Power, Test Tone on/off, Channel up/down, Input Level, Transmit Level, Contour, Monitor Level                                                                                                                                       |
| Indicators                                            |                                                                                                                                                                                                                                     |
| Unit Power                                            | Red LED illuminates when the unit is powered up (front panel)                                                                                                                                                                       |
| Input 1, Input 2, Transmit Level                      | Indicates Input 1, Input 2, and Transmit audio levels. 10 segment LED's (8 green, 2 red)                                                                                                                                            |
| LCD                                                   | Channel designation, lock status, RF Carrier, programming (front panel)                                                                                                                                                             |
| Test Tone                                             | Red LED illuminates when test tone enabled (front panel)                                                                                                                                                                            |
| Stereo                                                | Indicated by a green LED when on (front panel)                                                                                                                                                                                      |
| Processing                                            | Indicated by a green LED when on (front panel)                                                                                                                                                                                      |
| RF Carrier                                            | Indicates carrier is active on the LCD Display (front panel)                                                                                                                                                                        |
| RF                                                    |                                                                                                                                                                                                                                     |
| Carrier Frequencies                                   | 2.3 MHz, 2.8 MHz, 3.3 MHz, 3.8 MHz                                                                                                                                                                                                  |
| Number of Channels                                    | Four (4) channels. Selectable one (1) channel per transmitter (mono or stereo)                                                                                                                                                      |
| Frequency Accuracy                                    | +/- .005% stability 0 to 50 °C                                                                                                                                                                                                      |
| Transmitter Stability                                 | 50 PPM                                                                                                                                                                                                                              |
| Carrier Shut Off                                      | Carrier will shut off when no audio is present for 30 minutes to preserve radiator life.                                                                                                                                            |
| Output/s                                              | Two (2) BNC connectors, for connection to radiator(s) and/or additional transmitter(s). 50 mV, 50 ohm, -15 dBm                                                                                                                      |
| Input/s                                               | One (1) BNC connector, for connection from additional transmitter(s). 50 mV, 50 ohm, -15 dBm                                                                                                                                        |
| Power                                                 |                                                                                                                                                                                                                                     |

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|                               |                                                                                                                                                                      |
|-------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power Supply                  | In-line switching mode power supply, Listen part number LA-205                                                                                                       |
| Power Supply Connector        | RJ-45                                                                                                                                                                |
| Power Supply Output           | 30 VDC, 1.5 A                                                                                                                                                        |
| Power Supply Input            | 100-240 VAC, 47-63 Hz                                                                                                                                                |
| Power Output                  | Two (2) RJ-45 jacks. For remote powering up to two (2) radiators                                                                                                     |
| <b>Physical</b>               |                                                                                                                                                                      |
| Rack Mounting                 | One (1) rack space high (1U), 1/2 rack space wide. One (1) or two (2) transmitters can be mounted in a single rack space. Optional Rack mount (LA-326) not included. |
| Color                         | Dark Grey                                                                                                                                                            |
| Power Line Cord               | North America, Type B, (LT-82-01) Asia, UK, Type G, (LT-82-02) Euro Type J, (LT-82-03)                                                                               |
| Weight                        | 2.6 lbs. (1.18 kg)                                                                                                                                                   |
| Height                        | 1.75 in. (4.5 cm)                                                                                                                                                    |
| Unit Weight with Power Supply | 3.8 lbs. (1.72 kg)                                                                                                                                                   |
| Shipping Weight               | 6.0 lbs. (2.7 kg)                                                                                                                                                    |
| Width                         | 8.50 in. (21.5 cm)                                                                                                                                                   |
| Depth                         | 9.13 in. (23 cm)                                                                                                                                                     |
| <b>Environmental</b>          |                                                                                                                                                                      |
| Temperature - Operation       | 14 °F (-10 °C) to +104 °F (40 °C)                                                                                                                                    |
| Temperature - Storage         | -4 °F (-20 °C) to +122 °F (50 °C)                                                                                                                                    |
| Relative Humidity             | 0 to 95% relative humidity, non-condensing                                                                                                                           |
| <b>Compliance</b>             |                                                                                                                                                                      |
| Standards                     | FCC Part 15, Industry Canada, CE, RoHS, UL                                                                                                                           |