



SOUND ASSOCIATES, INC.



SA1422 - TWO CHANNEL, DIGITAL, INFRARED TRANSMITTER

The SA-1422 is the complete solution for a wireless infrared listening system. The SA-1422 continues Sound Associates' reputation for quality wireless products with a device designed to meet the needs of the most demanding client. This transmitter utilizes a high speed DSP to control audio processing, audio level, frequency modulation and output power. This digital design allows for full audio controls at a fraction of the cost of other systems with these features.

The SA-1422 features two microphone or line level inputs. Each input can be set to a different channel or combined to mix the audio signal into one output frequency. In addition, each input has a 3-band parametric equalizer, built-in, user-defined compressor/limiter, and individual pre-amp controls to supply the end user with the highest quality audio in the industry. A high intensity 20 character LCD display shows audio metering and channel settings while simple front panel controls allow for easy access to menu options.

This infrared transmitter is used in theaters, cinemas, courtrooms, classrooms, and public meeting areas to aid hearing or sight impaired individuals. Also used for simultaneous translation or audio enhancement, the SA-1422 supplies unsurpassed quality at an affordable price. The SA-1422 is backed by a full three-year warranty that will ensure years of quality performance and listening satisfaction.

Features:

- ⦿ 3-Band parametric equalizer on each input.
- ⦿ 6 user selectable channels per input (95 kHz, 250 kHz, 2.3 MHz, 2.8 MHz, 3.3 MHz, and 3.8 MHz).
- ⦿ 2 audio inputs with the ability to output 2 modulated channels or combine both signals into one output.
- ⦿ Ability to mix 2 inputs into one output.
- ⦿ Two balanced line or microphone inputs with phantom power.
- ⦿ Infrared output on the front panel for monitoring program.
- ⦿ Input peak indicator on front panel.
- ⦿ Pre-amp gain control on back panel.
- ⦿ Bright 20 character display showing true audio modulation and compression.
- ⦿ Built in test tone generator.
- ⦿ Ultra-low noise audio pre-amp used in the input stage; has very low THD, wide bandwidth, and high slew rate.
- ⦿ Advanced push-pull output stage capable of driving long wire runs.
- ⦿ Full 3-year warranty.



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Technical Specification:

Modulation	Transmitting frequency Modulation Modulation nominal swing Pre-emphasis Internal Signal Processing Speed Sample Frequency Signal Delay	95 kHz, 250 kHz, 2.3 Mhz, 2.8 Mhz, 3.3 Mhz, 3.8 Mhz, FM ± 35 kHz nominal, ± 50 kHz peak 50 s 100 Mhz 24 bit processing 48 kHz < .5mS input to output
Input	Audio Connector Number of inputs Wiring Phantom power Sensitivity at 1 kHz Input impedance AF frequency response (-3 dB) Maximum input level Data Port Connector Baud Rate	Microphone - Female XLR; Line - ¼" phone 2 Pin 1 - sleeve (ground); Pin 2 - tip (pos); Pin 3 - ring (neg) ± 40 V switchable 50 mV to 2 V adjustable Balanced > 50 k ohms/ > 2 k ohms 20 Hz to 20 kHz 20 dBm (7.75 V) 9-pin Sub-D Serial Port 9600
Output	Connector Number of outputs RF Voltage output Impedance	BNC 2 Outputs, 1 Summing to link units together approximately 750 mV rms approximately 50 ohms
Power	Power Power consumption Fuse	120/240 ACV internally switchable > 25 W T500 mA (5 x 20 mm) @ 120V; T250 mA @ 240 V
Mechanical	Mechanical dimensions Weight Finish/material	19" w x 1.75" h x 9" d (1 rack space) 6 lbs. Silver powder-coat aluminum

Engineering / Architect Specifications: The infrared transmitter shall use a Digital Signal Processor (DSP) to modulate an audio signal to 95 kHz, 250 kHz, 2.3 MHz, 2.8 MHz, 3.3 MHz, or 3.8 MHz with a nominal modulation swing of 35 kHz and a peak modulation of 50 kHz. The transmitter shall have 2 audio inputs that are user adjustable for frequency. The input stage shall consist of an ultra-low noise audio preamp with an input sensitivity at 1 kHz adjustable from 50 mV to 2 V. The input shall be electronically balanced with the XLR connector with an input impedance > 50,000 ohms and the ¼" phone connector with an input impedance > 2,000 ohms. The transmitter shall supply 40 VDC phantom-power via the XLR connector to power condenser microphones and shall be switched off with a rear panel control. Each input shall have a 3-band parametric equalizer and audio limiter. The transmitter shall have a radio frequency output voltage of approximately 750 mV (rms) and output impedance of approximately 50 ohms. The audio connection shall be made via a XLR connector for microphone level or ¼" phone style connector for line level. The modulated audio output connection shall be made via a BNC connector. The transmitter shall be able to operate with a power source of 120 VAC or 240 VAC 12% 50/60 Hz with a power consumption of <30 W. The unit shall rack mount in a standard 19" equipment rack utilizing 1 rack space. The transmitter shall be the Sound Associates, Model number SA1422.

Warranty

The SA1422 infrared transmitter is covered by a full three-year warranty, from the date of original purchase, against defects in workmanship or materials. If any component fails due to defects in craftsmanship or materials Sound Associates will repair or replace that component without charge. The factory warranty does not cover malfunctions due to abuse or operation other than specified.

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