

## Audio Wireless Digital Surveillance System

Model 6201 series

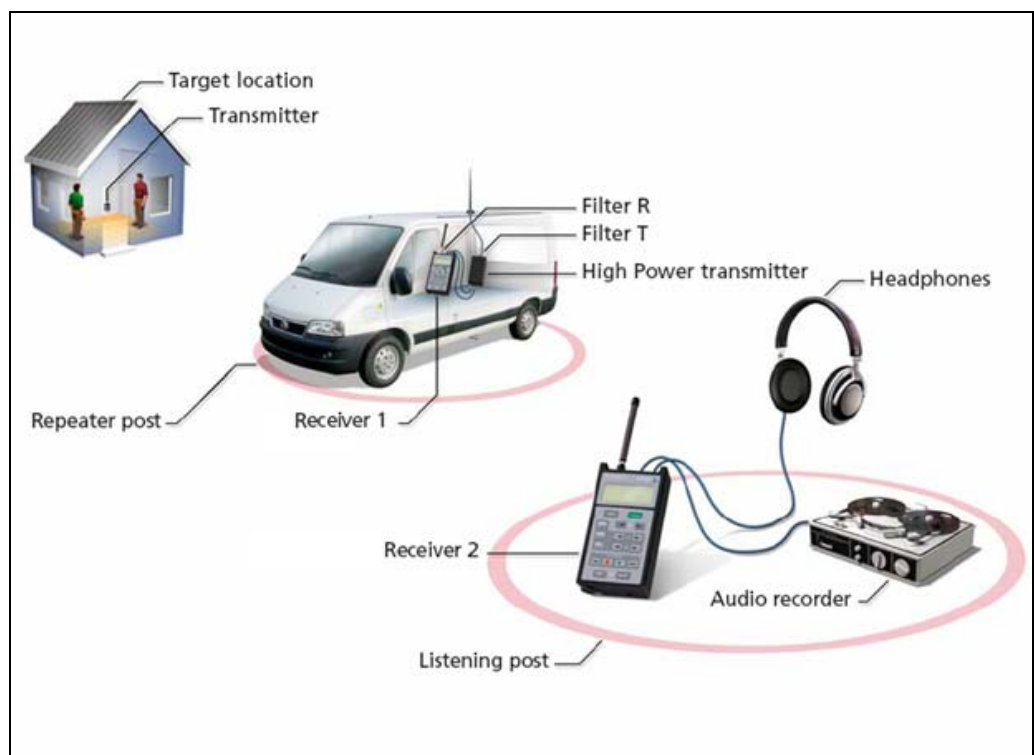
## Audio Wireless Digital Surveillance System MODEL 6201 series

The TSE 6201 system must be regarded as the most powerful handheld Wireless Digital Stereo Transmission system on the market today. With an operating range of up to 4 km/2.5 miles (depending on field conditions), the TSE 6201 system sets new standards for digital transmission systems.

The TSE 6201 unit combines a range of different functions into one single handheld and portable system that ensures easy operation in a wide range of surveillance applications. With the TSE 6201 system it is possible to control up to 256 transmitters, making the system extremely versatile in any surveillance operation.

One particular feature, which is unique to the TSE 6201 system, is incorporated into the transmitter: when given a remote control command it transmits its status to the receiving unit. The operator can read this transmitter status in the RX display, thereby being informed of the battery condition, high/low power and mono/stereo and VOX/Cont. The digital transmission method of coding and encryption eliminates unauthorized listening by a third party. The transmitter is frequency tunable. This means that in case of interference, both the RX and the TX can be retuned to another channel, where range and audio quality is optimum.

The TSE 6201 transmitter can be connected to a Micro Mains Module (TSE 6007-5) where long term surveillance operations are required.



## Applications

The TSE 6201 is ideal for operations requiring high quality audio, high level security, long distance monitoring, portable operation, wireless remote control of transmitters, long term installation, and easy installation.

## Features

Wireless remote controlled functions

- Mono/stereo
- High power/low power
- VOX/Cont. – voice activation or permanent transmission
- Select between 64 channels
- Switch between 256 transmitters
- High quality stereo
- High level audio encryption
- Self detection of the optimum channel
- TX with or without AGC
- Transmitter status indication
- Repeater function (Optional)
- Easy to operate

## TSE 6201-1: Remotely controlled Receiver with digital recorder

The TSE 6201-1 system is the most powerful and versatile digital stereo transmission system on the market today. It combines a range of different functions into one single hand-held and portable system.

With the ability to control up to 256 transmitters, the system is able to operate in multiple locations simultaneously. For secure transmission, the TSE 6201-1 system uses a special digital transmission method of coding and encryption, which eliminates unauthorized listening by third party.



## Receiver

The TSE 6201-1 is the next generation digital wireless receiver in a new and compact design. All control buttons are placed on the front of the receiver. The display has a simple layout, which makes it easy for users to operate and utilize the system to its fullest potential. The TSE 6201-1 uses minimal current consumption, both when supplied internally or externally. The high remote control output power, when powered from an external power source, and the receiver's sensitivity, provide excellent audio quality in long range operations.

## Recorders

This digitally advanced recorder is easily controlled from the front panel of the receiver unit and can be configured to offer anything from 6 to 95 hours of recording, depending on the sample frequency and compression.

One very unique feature is the supplied software, which is Windows based. All TSE 6201-1 recordings are stored on internal flash using FAT 16 and the Microsoft wave audio format. This means that each recording can be played via any standard Windows media player. The TSE 6201-1 comes complete with the Wave Checker application designed to detect if a file has been modified after recording. Not only does the Wave Checker software detect modifications to the actual audio data, but also if the time or date has been modified, which is imperative when submitting as evidence in court.

### *Receiving Unit*

Receiver sensitivity - Mono/Stereo	-110 dBm/-107 dBm
RSSI-meter	Display value from 0 to 100
Remote control RF power	
Internal battery supply/External supply	0.7 W/5 W
Internal battery	2 x AA
External supply voltage	12 V (8 V min., 15 V max.)
Receiving operating period	Up to 16 hours
Dimensions (HxWxB)	165x82x34 mm/6.5x3.2x1.3 inches

### *Recording Unit*

Recorder memory	2 GB
Analog input output	1/1
Dynamic range	96 dB
Signal/Noise	> 80 dB
Sample frequency	6, 8, 9.6, 12, 16, or 24 kHz
Front end	16 Bit
Audio bandwidth	Half the sample frequency
Recording time	Up to 95 hours, depends on settings
	24 hrs @ 12 kHz sample freq., mono and linear
	12 hrs @ 12 kHz sample freq., stereo and linear
	47 hrs @ 12 kHz sample freq., mono and A-law
	24 hrs @ 12 kHz sample freq., stereo and A-law
Compression	Linear (1:1) or A-law (2:1)
USB Transfer rate	400/second

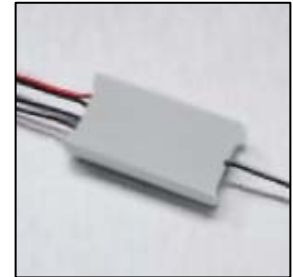
## Transmitters

### TSE 6201-2: Digital Audio Standard TRANSMITTER

The new versatile TSE 6201-2 Transmitter can be powered from any power source between 3.6 to 18 VDC, including a car battery. The output power makes it ideal in operations where extended range and penetration is crucial. Range up to 500m.

#### Technical specifications

HI power mode @ 6 V	170 mW/95 mA
LO power mode @ 6 V	12 mW/42 mA
INACTIVE consumption	0.14 mA – average value
Dimensions (HxWxB)	58x30x8 mm/2.3x1.2x0.3 inches

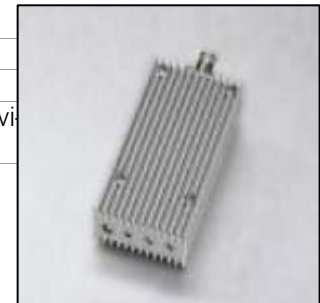


### TSE 6201-3: Digital Audio High-Power TRANSMITTER

The TSE 6201-3 High-Power Transmitter can also function as a normal target transmitter where very long range is necessary and also as part of the repeater kit. After connection to a power supply the high-power transmitter will switch into an initial start mode. To change this setting – use the receiver. Range up to 2 km.

#### Technical specifications

HI power mode @ 12 V	2 W/0.7 A
LO power mode @ 12 V	0.2 W/0.2 A
Dimensions (HxWxB)	100x51x39 mm (without connector)



### TSE 6201-4: Digital Audio BODY-WORN TRANSMITTER

The TSE 6201-4 Body-worn Transmitter is used as a part of the TSE 6201 system. It incorporates all the unique features from the existing standard TSE 6201-2 transmitter. The small and lightweight body-worn transmitter intercepts all audio through its external microphone making it extremely suitable for close proximity operations. Range up to 500 m.

#### Technical specifications

1. HI power mode	Typ. 150 mW
LO power mode	Typ. 10 mW
Microphone	External
Microphone connector	Lemo
Battery	4 x AAA
Kill Switch	On/Off
Dimensions (HxWxB)	84x54x13 mm



### TSE 6201-5: Digital Audio Belt Transmitter

The new versatile TSE 6201-5 Transmitter can be powered from any power source between 3.6 to 18 VDC, including a car battery. The output power makes it ideal in operations where extended range and penetration is crucial. Range up to 500m.



#### Technical specifications

HI power mode @ 6 V	170 mW/95 mA
LO power mode @ 6 V	12 mW/42 mA
INACTIVE consumption	0.14 mA – average value
Dimensions (HxWxB)	58x30x8 mm/2.3x1.2x0.3 inches

### Accessories

#### TSE 6201-6 - GSM Modem REPEATER Kit

The GSM Kit consists of:

- 1 GSM modem
- Adapter
- Cables
- Antennas



#### TSE 6201-7 - Covert Vehicle Antenna



#### TSE 6201-8 - Repeater filter Kit

The Repeater Module Kit consists of:

- 1 RX filter
- 1 TX filter
- 1 Antenna
- 1 User Guide



### TSE 6201-9 – Bubble Gum Transmitter

The TSE 6201-9 Covert “Drop & Walk” Bubblegum Transmitter is an extremely flexible and compact transmitter with an internal rechargeable lithium battery.

The pocket-sized design with all connection wires and battery integrated, makes the transmitter an easy deployable “Drop and walk” solution for covert operations. Simply remove the pin at the top and the transmitter starts to transmit.



#### Technical specifications

High Power, Typ.	150 mW/130 mA - 3.7 VDC
Low Power, Typ.	45 mW/55 mA - 3.7 VDC
Remote sensitivity	-113 dBm
INACTIVE consumption	0.14 mA - average value
Dimensions (L x W x H)	140 32 x 8 mm/5.5 x 1.3 x0.3 inches

### TSE 6201-10 – flex transmitter

The TSE 6201-10 Covert “Drop and walk” Flex Transmitter is a compact transmitter with an internal rechargeable lithium battery.

The pocket-sized design with all connection wires and battery integrated, makes the transmitter an easy deployable “Drop and walk” solution for covert operations. Simply remove the pin on the top and the transmitter will start to transmit.



#### Technical specifications

High Power, Typ.	150 mW/130 mA - 3.7 VDC
Low Power, Typ.	45 mW/55 mA - 3.7 VDC
Remote sensitivity	-113 dBm
INACTIVE consumption	0.14 mA - average value
Dimensions (L x W x H)	140 32 x 8 mm/5.5 x 1.3 x0.3 inches

## The TSE 6201-kit - Advanced digital audio Surveillance Kit

The Kit consists of:

- 2 Receiver/Recorder
- 2 Standard Transmitters
- 1 TXH Hi Power Transmitter
- 1 Receiver filter
- 1 Transmitter filter
- 2 GSM modems
- 1 Wire
- 6 Antennas
- 1 Stereo microphone
- 3 Power supplies
- 2 Headphones
- 2 Battery Compartments
- 1 User Guide
- 1 Pelicase





### Digital Processing

Microprocessor	•Four ADSP-21062 SHARC® processors for beam forming
	•One ADSP-21062 SHARC® processor for interface control and hosting
Beam-Forming	•Three beams (or one stereo beam and one mono beam)
	•Adjustable azimuth (0.1 degree increments)
	•Adjustable gain (1 dB increments)
	•Adjustable elevation (0.1 degree increments), software control only
	•Adjustable distance (0.5 meters to infinity), software control only
	•30th order, digital low pass filters for fractional delays
	•Memory based sample delay lines (200 deep)
Memory	•Two 512K x 8 flash memory for program and coefficient storage
Computer Interface	•RS232 serial interface for system control

### General

Enclosure	•17 W x 3.5 H x 12 D inches black aluminum
	•Optional rack mount kit available
Power	•90-264 VAC, 47-63 Hz at 2.5 A (max)



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