SS-ASR-U49

Directional miniature Audio Surveillance Recorder

The SS-ASR-U49 is a unique covert digital audio recorder incorporating multiple microphones. This feature creates a highly directional recorder, with up to 15 m range. Built-in noise-cancelling allows use in noisy environments as well as providing target directional information. The U49 incorporates our standard features as well, - voice activation, integrated timer, selectable compression and extended battery life.

Key Features

- 2GByte or 8GByte flash memory capacity, giving up to 1200 hours recording time in 8kHz 2 bit ADPCM mode
- AAA standard or rechargeable battery.
- Built-in noise–cancelling high-sensitivity directional microphone
- Optional external programmable microphone
- 4 different recording modes: voice activation, single–pass recording, endless-loop recording, and scheduled timer mode
- Recordings saved to PC as standard *.wav files via USB. Intuitive software provided
- 16 bit A/D resolution and 80 dB effective dynamic range, configurable compression & bit rate settings
- All files are time and date stamped and signature verifiable allowing easy cataloguing.
- USB 1.1 connection for download to PC.

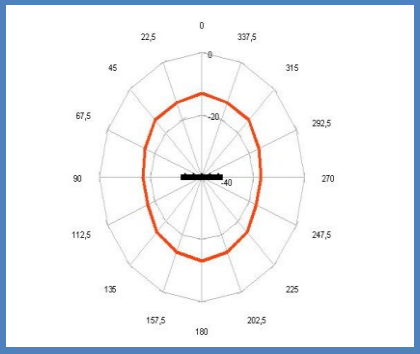
Directional recording in a very package
AAA Battery for quick redeployment
- 16-bit codec and noise cancellation

How does it work?

5 microphones are spaced so that each one detects sound at a slightly different time to its neighbour When the sound source is off-centre, the time difference results in a slightly different phase for each signal and this is used to provide cancellation. When the source is directly in front of the microphone array, all sound signals are received simultaneously , summed and the resulting signal is selectively amplified.

Microphone noise is reduced according to the same principle: the noise sound waves do not coincide and the recorded sound waves summarize, that's why the sound is "cancelled" while the target sound is amplified. Noise reduction runs according to the formula: An = A1 /sqr(N) with N being the number of microphones, A1 – the noise background of one microphone, An - the noise background of N microphones.

Microphone operation coverage area bears some resemblance to an oval where the red line represents recorder sensitivity



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SS-ASR-U49

Frequency Response
100Hz – 10kHz

A/D Conversion
16-bit resolution

Sampling Rates (Selectable)
5.5kHz, 6.6kHz, 8kHz, 10kHz,13.3kHz, 20kHz

Signal to Noise Ratio
-72dB

MicrophoneSensitivity
up to 16m
Optional external microphone and remote control

Buit-in AGC
-1 to +40dB

Status Indication
LED

Control
Tactile button

Replay
Headphone connector included

Battery Life
Standby : up to 36 months
VAS mode recording(audio signals below threshold) up to 456 days
Continuous Recording (8kHz no compression) : up to 220 hours

Recording Capacity (Longest Play Quality Setting)
Modified 2 bit ADPCM, 4kHz sample-rate

U49-2048 (2 GByte)	300 hours
U49-8192 (8GByte)	1200 hours

Replay Mode
Download to PC
Password Protected
Digitasl signature

Recording Modes
Single-pass and endless-loop
Delayed start – once and repeat daily
Voice activation option

Compression
:2-bit ADPCM, 4-bit ADPCM, U-law, uncompressed

Battery
Standard AAA or AAA rechargeable (external charger required)

Control and Download Interface
USB: 1.1 (0.7Mbps)
Connector: Mini-USB (Type-B).

Dimensions
143mm x13mm x118mm

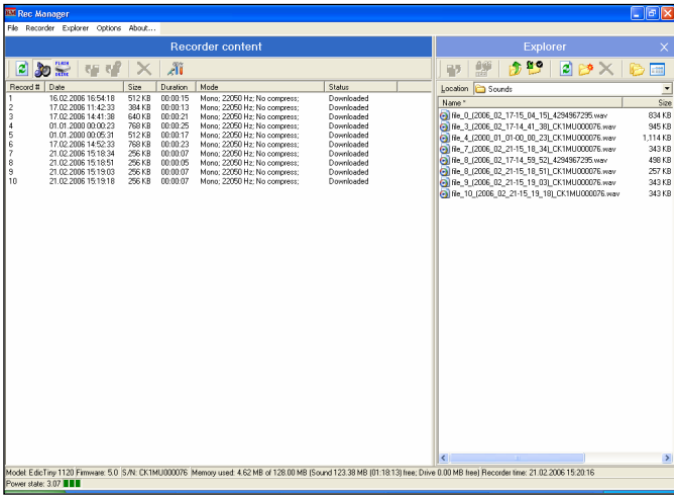
Weight
24g excluding battery

Case
Duraluminium

Operating Temperature
Operating Temperature: 0°C to +40°C

Minimum System Configuration
500MHz processor, 256MB RAM, 20MB HDD; 800 x 600 (65536 colour) graphics, USB Port, Windows XP/Vista Professional™

Recorder Manager Software



External Programmable Microphone Option

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