

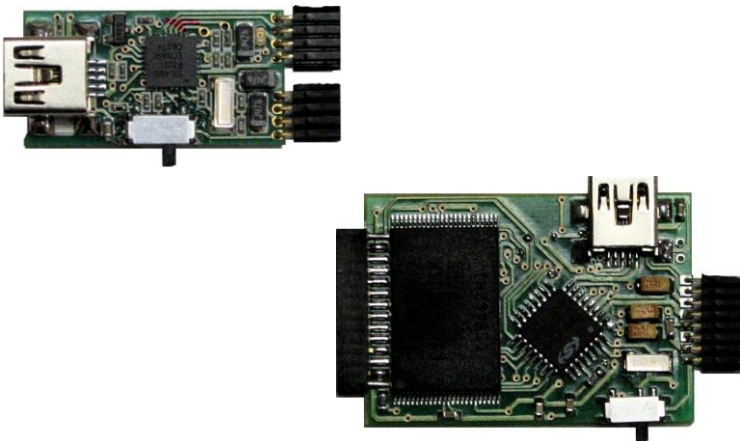
SS-ASR-S

Miniature Audio Surveillance Recorder Modules

The SS-ASR-S Stereo Audio Surveillance Modules are high capacity covert digital modules that can be integrated into customers' own systems or a variety of everyday objects for covert deployment.

Key Features

- Very small in size and weight
- 2GByte - 24GByte flash memory capacity, giving over 5000 hours of continuous recording
- Stereo and mono operation
- USB 1.1 (model S1/S3) or USB 2.0 (model S3)
- Low Power consumption
- Ability to function in a wide temperature range, under vibration and in dusty conditions due to the absence of moving parts
- 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
- All files are time and date stamped allowing easy cataloguing and auditing
- Files include data integrity and source check to identify post-processing alterations or corruptions.
- Optional password to prevent unauthorised access.
- A companion development kit is available to help you develop your own applications



Scenario 1

You wish to record audio evidence on a landline phone but have limited access. The SS-ASR-S Module can be integrated into the phone headset when the opportunity presents itself. Using the Voice Activation mode and the ability to record for over 5000 hours, the time/date stamped evidence can be retrieved at a later date

Scenario 2

You suspect that there is unlawful activity taking place in an office on a regular basis and you need to obtain audio evidence. The SS-ASR-S Module can be integrated into local furniture and the timer set to record all activity taking place during working hours.

Scenario 3

All conversations in a target's vehicle need to be recorded. By integrating the SS-ASR-S Module into the car, you can record, and time/date stamp all conversations for later retrieval

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SS-ASR-S**Recording Modes**

Stereo or Mono (software selectable)

Frequency Response

100Hz – 10kHz

A/D Conversion

10-bit resolution

Sampling Rates (Selectable)

22kHz, 16kHz, 11kHz, 8kHz, 5.5kHz

Signal to Noise Ratio

-64dB

Audio Input Sensitivity

1.5V p-p (optimum)

2.9V p-p (maximum)

Status Indication

On-board LED

Also supports external LED

Consumption

5mA Maximum

Mono 8 kHz recording = 2mA (especially useful for high capacity, low-power lithium batteries, e.g. CR2032)

Recording Modes

Single-pass and endless-loop

Delayed start – once and repeat daily

Voice activation option

Recording Capacity (Longest Play Quality Setting)

Modified 2 bit ADPCM, 5.5kHz sample-rate:

S1-2048 (2GByte) 426 hours

S1-4096 (4GByte) 852 hours

S1-8192 (8GByte) 1706 hours

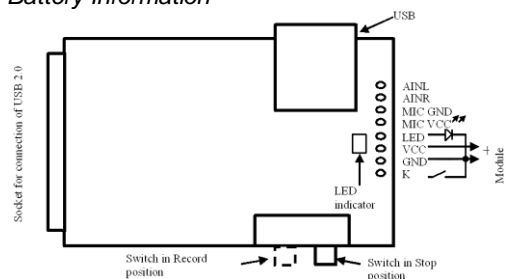
S3-16384 (16GByte) 3413 hours

S3-24576 (24GByte) 5120 hours

Control and Download Interface

USB 1.1 S1/S3 Modules

USB 2.0 S3 Modules

Battery Information

The module requires a DC supply in the range 2.8V – 3.2V.

For battery operation, a CR2450 3-Volt battery is suggested.

Contact Somerdata for advice when using a rechargeable battery .

Recording Bitrate/Compression**No compression:**

Sample rate 22 kHz: bit-rate = 220 Kbit/s

Sample rate 16 kHz: bit-rate = 160 Kbit/s

Sample rate 11 kHz: bit-rate = 110 Kbit/s

Sample rate 8 kHz: bit-rate = 80 Kbit/s

Sample rate 5.5 kHz: bit-rate = 55 Kbit/s

Logarithmic Compression (μ -Law):

Sample rate 22 kHz: bit-rate = 176 Kbit/s

Sample rate 16 kHz: bit-rate = 128 Kbit/s

Sample rate 11 kHz: bit-rate = 88 Kbit/s

Sample rate 8 kHz: bit-rate = 64 Kbit/s

Sample rate 5.5 kHz: bit-rate = 44 Kbit/s

Modified 4 bit ADPCM:

Sample rate 22 kHz: bit-rate = 88 Kbit/s

Sample rate 16 kHz: bit-rate = 64 Kbit/s

Sample rate 11 kHz: bit-rate = 44 Kbit/s

Sample rate 8 kHz: bit-rate = 32 Kbit/s

Sample rate 5.5 kHz: bit-rate = 22 Kbit/s

Modified 2 bit ADPCM:

Sample rate 22 kHz: bit-rate = 44 Kbit/s

Sample rate 16 kHz: bit-rate = 32 Kbit/s

Sample rate 11 kHz: bit-rate = 22 Kbit/s

Sample rate 8 kHz: bit-rate = 16 Kbit/s

Sample rate 5.5 kHz: bit-rate = 11 Kbit/s

Dimensions**S1 Modules:**As supplied (including connectors and switch):
32.5mm x 15mm x 6mmBasic circuit board (excluding connectors and switch):
25mm x 13.5mm x 2mm**S3 Modules:**As supplied (including connectors and switch):
45mm x 30mm x 6mmBasic circuit board (excluding connectors and switch):
36.5mm x 25mm x 3mm**Options**One (mono) or two (stereo) amplified microphones with compressor (\pm 6dB).

Multi-way connector for microphone & power.

Minimum System Configuration

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

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