

# GEM-WiFi AUDIO

Fully Autonomous Store & Forward  
Audio via WiFi Networks



**SURVEILLANCE**



Designed for covert use, **GEM-WiFi AUDIO** is the latest generation of the smallest Audio Store and Forward device with an integrated WiFi modem for remote download and live audio via peer-to-peer network or over the internet.

**GEM-WiFi AUDIO allows unlimited operational scenarios from closed network to being accessible from anywhere in the world via IP.**

Available in wrap with variety of batteries, **GEM-WiFi AUDIO** is fully autonomous and remotely configurable, and allows for wide operational flexibility. It can be set up to record according to calendar, multiple event schedule or by voice activation.

## PART OF THE GEM ECOSYSTEM



Simultaneously connect multiple devices of Acustek Store & Forward range, such GEM-WiFi AV, GEM-CELL 4, GEM-CELL 3 and GEM-WiFi AV.

Various data configurations individually for every connected device (Audio/Video, Audio, Geo-location).

Unrivalled user configuration and functionality to adapt to any unique Surveillance Operational need.

The **GEM ECOSYSTEM** expands without extra costs to implement, no need for any expensive server implementations or licence fees.

For security there is no cloud base or web access platforms, all files are either on your device or held locally completely under users' own control.

Ability to integrate into your existing Surveillance Platforms using **GEM ECOSYSTEM** API.

## GEM-WiFi AUDIO

**HIGH AUTONOMY AND CAPACITY** Memory support (up to 2 TB). Internal re-chargeable 1000mAh battery plus external power options with Molex connectors plug-in mains and car power converters.

**MULTIPLE CONNECTION MODES** Peer-to-peer in closed WiFi network, attached to existing WiFi infrastructure, directly via Android App connected to LAN, Via USB LTE dongle.

**ENHANCED FUNCTIONALITY** Unrivalled customization and unique functionality options not available in other systems. same system can be used with all of the different Acustek's Store and Forward devices simultaneously.

### SECURITY:

- AES 256 bit Encryption
- The unit remains completely RF-silent outside prescheduled data sessions
- Extra protection feature making the SD card unreadable
- Digital Signature SHA256
- Hidden SSID
- MAC-address masking

**Android APP** for Audio recording, downloading and online Live streaming.

**INDEPENDENT FTP Server** data upload option for fully automated operations.



## STORE AND FORWARD RECORDING AND LIVE AUDIO

- Fully automate the process using scheduled FTP upload of audio files.
- Simultaneously record live stream and on the device locally.
- Intuitive Voice Activation recording option.
- Random event schedule or periodic timers.
- Equalizer and Noise Filtering options.



## DELIVERY SET

- ✓ GEM-WiFi AUDIO - A wrap with battery
- ✓ Miniature Wifi Router
- ✓ Windows GEMS ECOSYSTEM + Android APP
- ✓ CABLES
- ✓ USB dongle



**GEM-WiFi AUDIO PCB** version offers extra flexibility to suit the operational needs due to its reduced size and various power options  
Size (PCB): 36 mm X 35 mm

## OPTIONAL ACCESSORIES



**240V POWER CONVERTER:**  
input voltage range 80V-240V  
AC - output 5V/500mA.

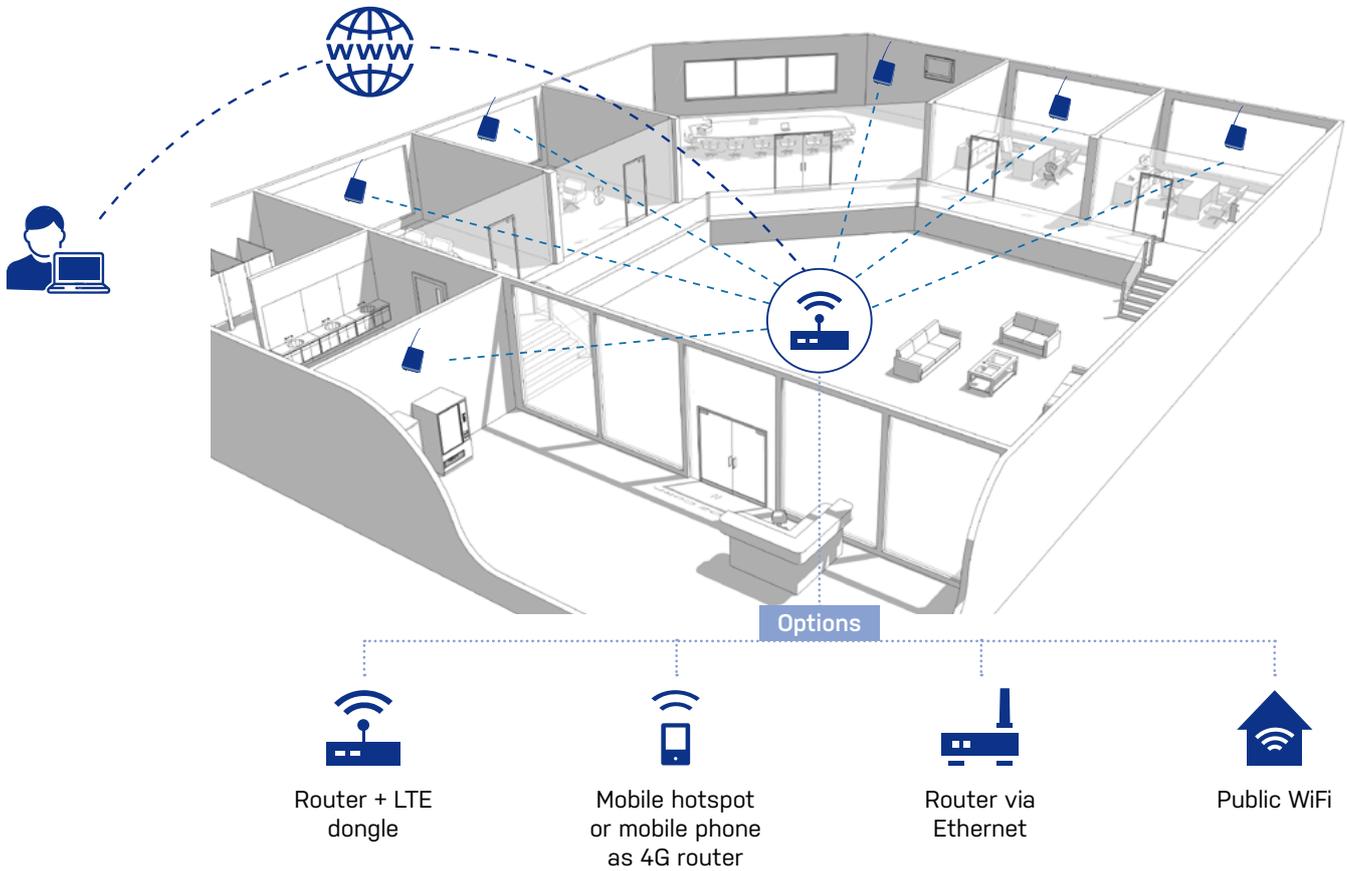


**12V POWER CONVERTER:**  
input voltage range 7.0V-36.0V  
DC - output 5V/500mA.

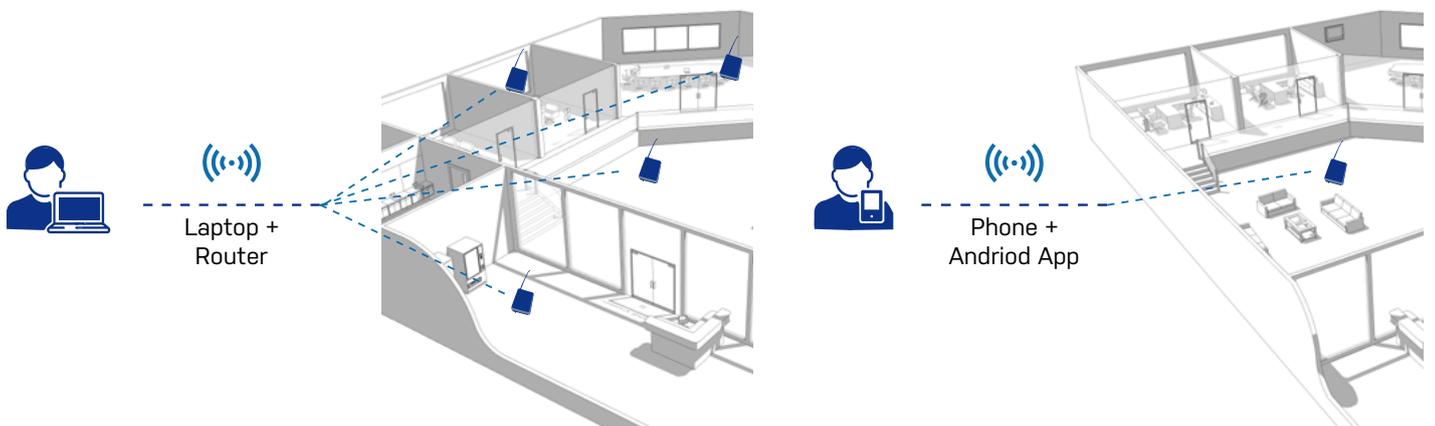


## USE SCENARIOS

### Over Internet



### Direct (peer-to-peer over WiFi)





## GENERAL SPECIFICATIONS

Dimensions:	39 x 30 x 18 mm
Dimensions, PCB version:	36 x 35 x 5 mm
Battery:	1000 mAh integrated Li-pol battery
Voltage input:	5.0 V, powered via micro USB
Scheduled recording:	32 events or weekly calendar
Battery life in record mode:	Up to 240 hours (8kHz audio only) including data transfer
Data storage:	Internal micro SD card 16GB as standard (up to 2 TB supported)
Data encryption:	AES 256 bit
Export records:	WAV format
Digital signature:	SHA-256

## AUDIO

Audio quality:	16bit
Sample rate:	22kHz, 16kHz or 8kHz
Signal to noise ratio (SNR):	75 dB
Sensitivity of built-in microphone:	approx. 8-10 m (Knowles EK23 series)
Voice activated recording (VAS):	Yes
Automatic Gain Control (AGC):	Yes

## CONNECTION

Wi-Fi modes:	802.11n, 802.11g or 802.11b in client mode
Network configuration:	static IP or DHCP
Security Encryption:	Optional WPA2/PSK, WEP-128, WEP-64
Cellular network connectivity:	3G/4G via USB dongle (Optional extra)
LAN/WAN:	Ethernet via LAN connection.
VPN:	Direct VPN support

## CONFORMITY

Directive 1999/5/EC	ETSI EN300328 V1.7.1: 2006, ETSI EN 389-1 V1.8.1:2008 ETSI EN 301489-17 V2.1.1:2009, EN 61000-3-2:2006+A1:2009+_A12:2011
Directive 2006/95/EC	EN60950-1:2006+A11; 2009+A1; 2010+A12:2011
Directive (ErP) 2009/125/EC	Environment EN62075:2008

## POWER CONSUMPTION

Power switch in OFF position	80uA
Stand-by current – Wi-Fi in passive scan mode, period 5min, recording OFF	600uA
Stand-by current – Wi-Fi OFF (outside operation period), recording OFF	85uA
Recording 8kHz, Wi-Fi in passive scan mode, period 5min	2.0mA
Recording 16kHz, Wi-Fi in passive scan mode, period 5min	2.2mA
Recording 22kHz, Wi-Fi in passive scan mode, period 5min	2.5mA
WiFi ON, online streaming	170 mA
WiFi ON, download at maximum speed (over 2500Kb/sec real transfer)	300 mA
Recording in voice activated mode (waiting for voice trigger), Wi-Fi in passive scan mode, period 5 min	1.3 mA
Recording in voice activated mode (waiting for voice trigger), Wi-Fi in passive scan mode, period 30 min	700uA