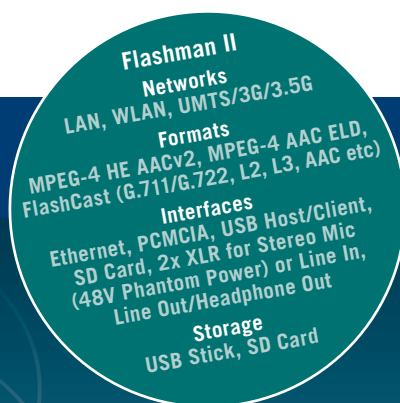


Flashman II Portable Codec/Recorder

Simultaneous recording & transmission –
welcome to the next generation



FLASH MANII™



*"There has never been
an easier way for Live News
and Recording ..."*

FLASHMAN II™

Next Generation Portable Recorder Codec

Now, after 5 years unparalleled success, MAYAH introduces its' 2nd generation Portable Recorder Codec, the Flashman II. The original Flashman was a pure, high quality digital recorder; Flashman II adds the ability to simultaneously record whilst transmitting the audio back to the studio. Flashman II records to SD Cards & USB sticks, supports most modern networks and interfaces – WLAN, UMTS/3G and Ethernet – and provides a wide range of the most modern coding algorithms, including two new, state-of-the-art audio formats, MPEG 4 HEv2 and MPEG 4 AAC ELD*; for "High Quality" and "Low Latency" respectively.

The exciting new ability to Record locally, while feeding Live gives reporters total control over their material and the ability to edit it further after transmission, for subsequent re-use.

And thanks to MAYAH's still unique FlashCast technology, Flashman II is able to automatically recognise, and connect worldwide to almost any audio codec, in any format. Ideal for on-location situations where the destination codec is not known. With Flashman II, MAYAH has built a portable studio for the palm of your hand!

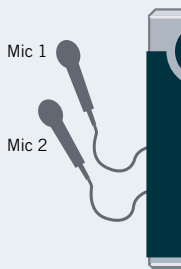
MAYAH, the IP Codec Company

With AAC HE & AAC ELD, Flashman II supports formats for any IP transmission



The audio interfaces include all connectors necessary for mono and stereo operation: two professional XLRs for microphone or line input with switchable 48V phantom power, meet all demands for outdoor reporting and broadcasting.

FLASHMAN II CONNECTIONS



▲ Compatibility via IP is assured through full support of the EBU recommendations for SIP in public networks.

The Audio-via-IP Experts Group supports the EBU draft as well as additional IP features.



Audio

- 2x XLR (48V Phantom Power) Mic or Line In
- 2x Line Out/Headphone Out

Recording Formats

- Linear Audio (PCM WAV, BWF)
- MPEG Layer 2, Layer 3
- MPEG-4 HE AACv2

Transmission/Storage Interfaces

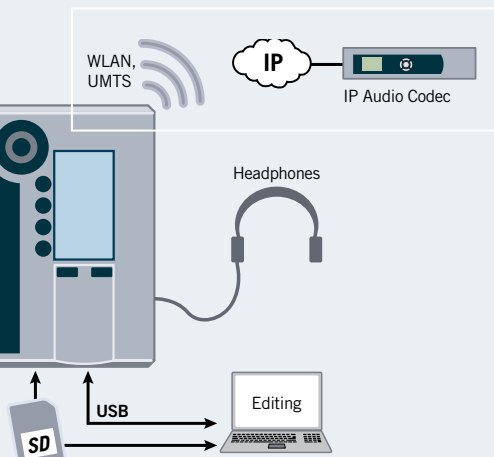
- Ethernet built in
- PCMCIA slot for optional UMTS/3G/3.5G/4G or WLAN/Wi-Fi card
- USB slot for optional memory stick
- SD slot for optional memory card

Communication Protocols

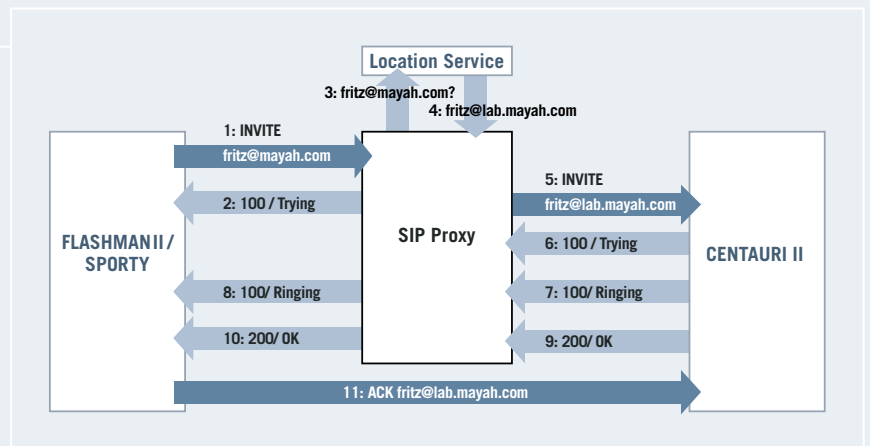
- SIP/RTP and other advanced IP protocols for Audio-over-IP

Flashman II offers today's most efficient coding and recording

ACTIVITY



SIP – CALL FLOW



The first generation Flashman received much praise for its intuitive user interface. With Flashman II the ease-of-operation has been even further improved and many operations can now be initiated with just one hand and just one or two buttons.



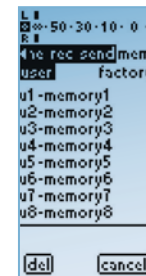
Playback mode



Main settings menu



Virtual potentiometers for input & decoder levels



Factory and user presets

NEW!

Control all functions remotely from the studio. Whether audio gain or mixing, the sound engineer can remote operate a Flashman just like a local mixing desk.

NEW!

Audible system information. Rather than blinking LEDs, Flashman tells you when the recording time is ending or battery power is running down. A voice announces e.g. "five minutes battery life remaining" or "you have 10 minutes recording time remaining".

Advanced Codec Formats for live transmission

- MPEG-4 HE AACv2 (high quality, very low bit rates)
- MPEG-4 AAC ELD* (high quality, low bit rates, very low delay)

Conventional Broadcasting Formats

- MAYAH's FlashCast, including: G.711, G.722, Layer 2, Layer 3 with automatic codec recognition
- 4SB ADPCM / MICDA and apt-X (optional)

Optics & Usability

- robust aluminium body
- easy readable monochrome LCD graphic display with backlight
- comfortable controls including joystick button
- long-life rechargeable Li-Ion battery
- nylon carrying case (optional)

Extra features

- Download recorded material directly to a PC via USB
- Transmission of pre-recorded material as a live-stream
- Automation of Audio-over-IP connections with SIP/RTSP

- Remote control via IP
- Backup of settings, presets and profiles onto a storage medium or using remote control via IP
- User management for restricted access to particular settings.

*temporary name, work item of MPEG-4, implementation from Coding Technologies



**FLASH
MAN II™**

Technical Data – Flashman II Portable Recorder Codec

Transmission/Storage Interfaces

Ethernet, IEEE 802.3 (1x RJ45)	10/100 Mbit/s Ethernet
USB	A-type
USB	mini-USB
SD	Slot
PCMCIA	Slot

Communication Protocols

IP	SIP, RTP, other
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Advanced Codec Formats

MPEG-4 HE AACv2	8 - 64 kbit/s mono or stereo
MPEG-4 AAC ELD*	8 - 128 kbit/s mono or stereo

Conventional Broadcasting Codec Formats

MAYAH's FlashCast including:	various bit and sampling rates
G.711, G.722, L2, L3, AAC, etc.	
with automatic codec recognition	

Recording Formats

Linear Audio	PCM WAV, BWF, mono / stereo
MPEG Layer 2, Layer 3	various bit and sampling rates
MPEG-4 HE AACv2	various bit and sampling rates

Display

LCD	Monochrome, 64x128 pixel
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Controls

Manual	Context sensitive softkeys, joystick button
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Web-Remote

Audio Connectors

Mic/Line In	2x XLR, 48V phantom powered, bal.
Headphone	1x 1/4" jack, unbalanced
Line Out	1x 1/4" jack, unbalanced

Analogue Audio

A/D, D/A Converter	24 Bit
Freq. range	≤ 10 Hz to ≥ 21.4 kHz (48 kHz, -3 dB)
Signal-to-Noise Ratio	≥ 94 dB (linear PCM)
Distortion Factor	≤ 0.05 %
Input Impedance	> 25 kOhm
Output impedance	< 100 Ohm
L/R phase difference	< 0.5°
Operating temperature	+5 to +45° C

Optional Accessories

USB Storage	optional
SD Storage	optional
Wi-Fi (WLAN) Card	optional
UMTS/3G Card	optional

Power Supply

Power Supply Unit	external, 110-230V AC
Lithium-Ion Battery	14V, 2000mAh
Loading Station	
Battery life	> 5 h

Weight

Net	420g
With battery	620g

Dimensions

Width	127mm
Height	179mm
Depth	56mm



Universal
Power Supply

The MAYAH range – Professional Audio & Video Encoding/Decoding, Recording, Mixing and Transmission Products



CENTAURI®II
Multichannel Audio Gateway Codec



Sporty
Portable Reporter Codec



MERK II
Portable Audio Codec Mixer



IO [io]
Audio Video Encoder/Decoder



ganymed
IP Audio Encoder/Decoder



Flashman II
Portable Audio Recorder/Codec

Layer 2 licensed from Audio MPEG, Coding Technologies
Layer 3/mp3Pro licensed from Thomson/Fraunhofer Institute
AAC / AAC HE licensed from VIA, Coding Technologies
*working name of MPEG 4, implementation from Coding Technologies

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