

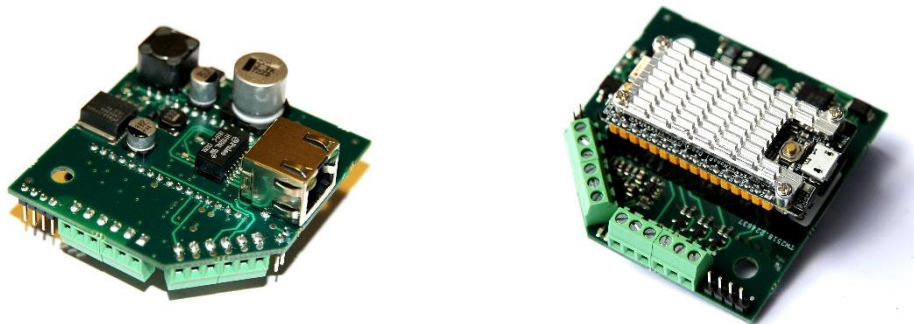
## FE-2X10W-SMOD

**SIP-SPEAKER LINUX SIP-AMPLIFIER MODULE 2X10W @PoE+ FOR PASSIVE SPEAKERS**

FE-2X10W-SMOD is a class-D built-in speaker Linux based SIP-module able to connect to any SIP-server as standard SIP-client and get a phone call as standard SIP-extension.

Small dimensions make it possible to upgrade any passive speaker into SIP-Speaker. Audio files and voice messages can be streamed live or uploaded to device to play them later or periodically from build-in timer/scheduler.

Auto-provisioning through IP-INTEGRA SIP-server saves time, especially in the case of large-scale installations. The module can easily integrate with 3<sup>rd</sup> parts SIP-systems through WEB interface.



### *At a first glance*

- Make your own customizable IP-speaker or an IP-amplifier
- Group Multicast and individual paging by dialling extension number
- Connect: 2 Passive Speakers, Microphone, Relay I/O pins, USB
- Designed to wide response for musing & speech in max. quality
- Easy SW setup through Web Interface & Auto-provisioning

## Specification

### HARDWARE

Ethernet Connector	1x RJ 45
Power Options	PoE+ IEEE 802.3at or an external 12V/2A DC
Power Consumption (idle)	1.8 W
Power Consumption	Up to 24W (Volume Dependant)
CPU	AllWinner H2+, Quad-Core Cortex A7

### SOFTWARE

Web Interface	Dashboard with HTTPS based configuration, Alarm settings
Sound adjustment	Echo Cancellation, Sound Muting, Silence Suppression, Paging Start/Stop Tone, Microphone Boost/Mute
Scheduler	Bulk Adding, Automatic Fill-out, Ringtone upload
Remote Provisioning	Automatic synchronizing of SIP-server scheduler and sound files; Device Discovery
Logging	Calls, Events, and Scheduler Logs

### NETWORKING AND PROTOCOLS

Protocols	IPv4, SIP, TCP, UDP, HTTP, RTP, DHCP, NTP
LAN Protocols	Network Access Control (802.1x), PoE(IEEE 802.3at)
Management and operation	HTTP (Web Configuration) DHCP and Static IP, Remote Software upgrade and monitoring
SIP Support	RFC3261 (SIP Base Standard), RFC3515 (SIP Refer), RFC2976 (SIP Info), RFC5630 SIPS Uri scheme
DTMF Support	RFC2833, 2976 (SIP Info)

### CONSTRUCTION

Size	60 x 60 x 30 mm
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### AUDIO

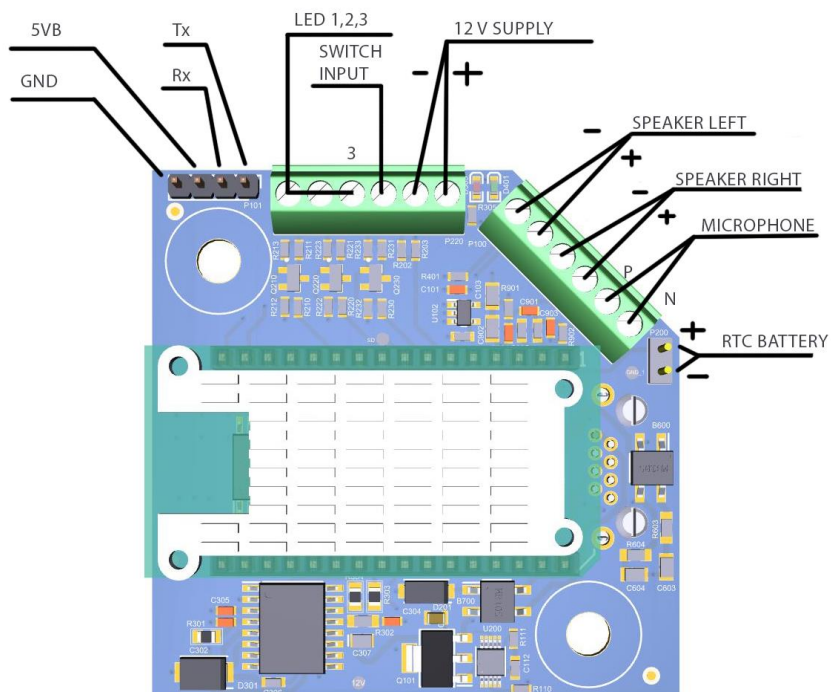
Internal audio amplifier	2x 10W Class D
Low Noise	-90 db
Efficiency	Above 90%
Audio Codecs	MP3, PCM, G.729, G.722, GSM, A-law, U-law
THD+N	0.1% @ PO = 5W, f = 1kHz, RL = 8 $\Omega$

### ENVIRONMENT

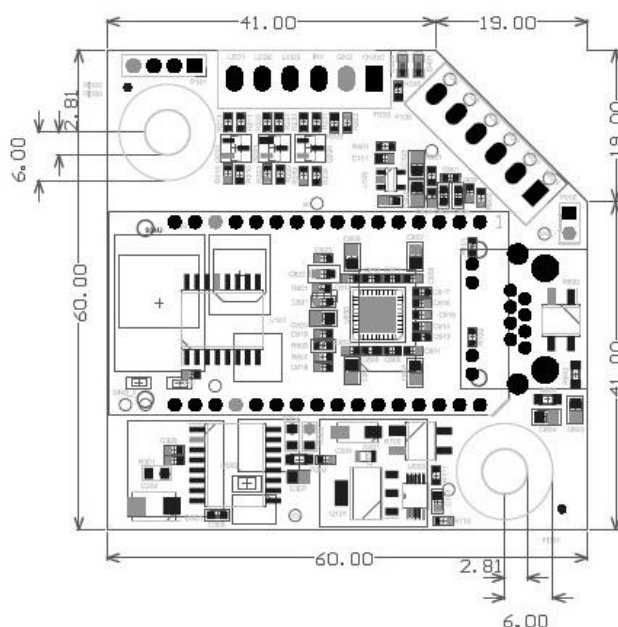
Operating Temperature	-20°C to 70°C
Storage Temperature	-40°C to 70°C
Humidity	10% to 95%

### INPUT/OUTPUT

Speaker Output	4-8 $\Omega$ , 10W
Output	5V DC & 12V DC Output, 3X Open Collector @2A, up to 15V(RGB LED Drive)
Input	1x Switch Button (Optional: Up to 4 Switch buttons)
Mic	Condenser Microphone Plug



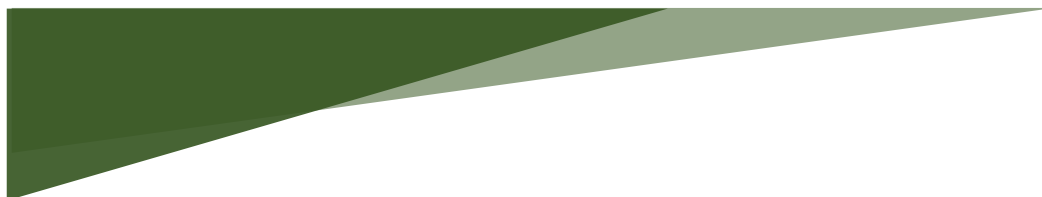
## Dimensions:



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Freund Elektronik A/S, in cooperation with our sister company Freund Elektronika D.O.O. Sarajevo, is developing an IP-Based Intercoms, Audio Systems, Access Control and Smart Home solutions.

As a developer, manufacturer, and reseller, we have been self-improving and perfecting ourselves for over 30 years.

In the industry, we negotiate the most advanced and innovative solutions regarding the building communication. Our daily focus is on the development and user friendliness of our high quality and pleasantly designed products.

As a developer and manufacturer of our own IP-INTEGRA system, we have made a top-of-the-line products for Door Telephony, Public Audio, and Access Control solution.

Our development department, together with our partners, has created elegant and robust door phones, SIP-Centrals, Terminals, IP-Speakers, ACC Controllers, and applications with intelligent features using the most advanced technologies when available, and creating new technologies when they are not while keeping it simple for our customers.

