

FE-AMP-IP1 (HW2-0) - PRODUCT DATASHEET

2X10W IP-INTEGRA LINUX SIP-AMPLIFIER

OEM-ready HW and SW

FE-AMP-IP1 is an IP-based class-D amplifier able to connect to any SIP-server and get a phone call as standard SIP-extension. Music and messages can be streamed live through IP-broadcast or get uploaded to device in order to play them later or periodically from build-in timer/scheduler. Auto-provisioning option through IP-INTEGRA SIP-server saves time, especially in the case of large-scale installations. FE-AMP-IP1 can be easily integrated into 3rd parts SIP-systems through WEB interface and/or IP-INTEGRA SDK.



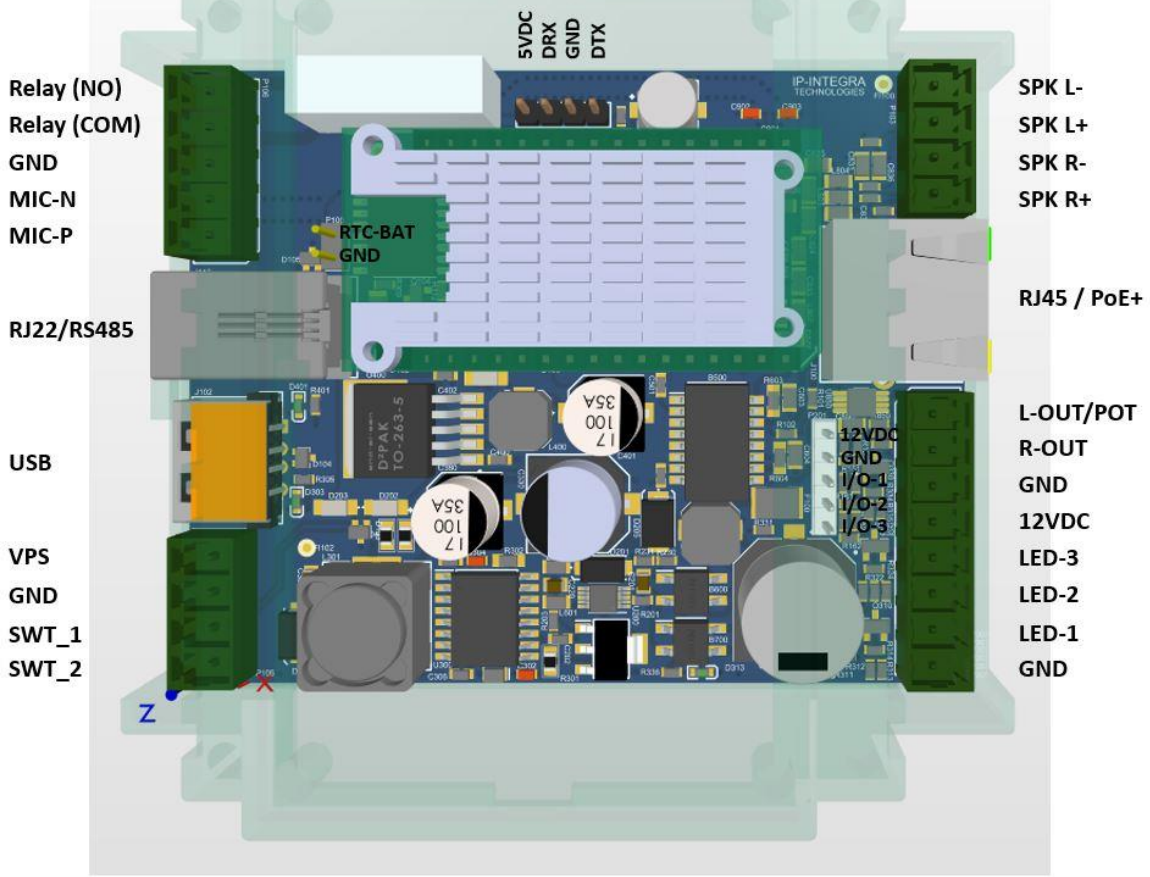
Briefly

- 2x10W Class-D SIP-Amplifier in 4M DIN box
- Group Multicast and individual paging by dialing extension number
- Connect: 2 passive speakers, microphone, relay on/off, USB, 2xCall Buttons, 3xLEDs and RS-485 devices
- Designed to wide response for music & speech in full quality.
- Easy SW setup through WEB interface & auto-provision
- OEM ready – can be SW+HW customized for large quantities

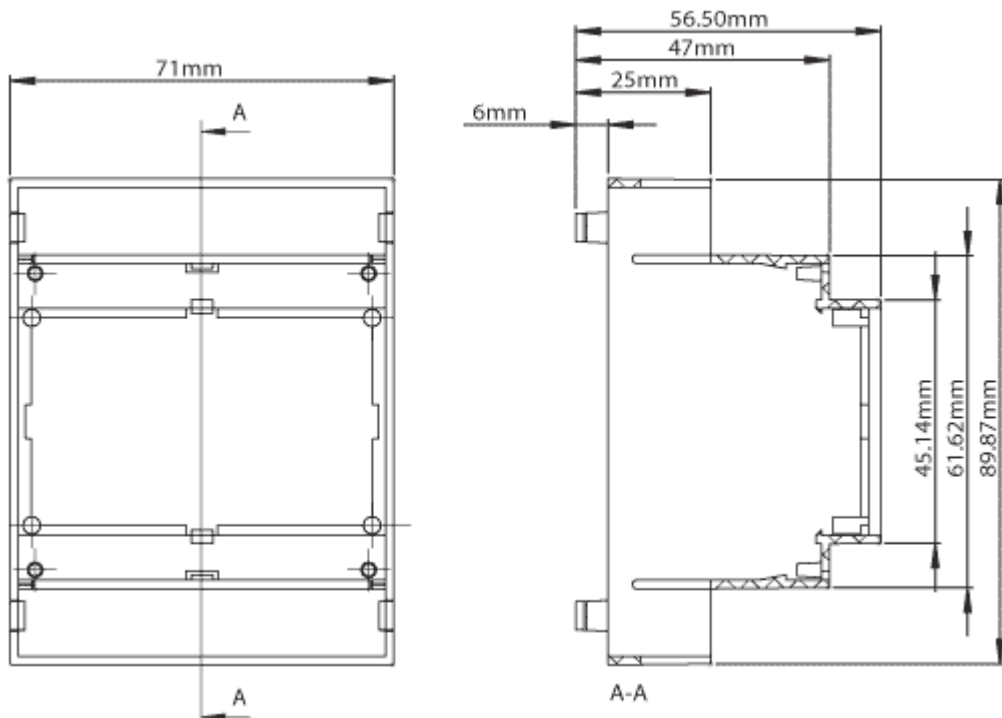
TECHNICAL SPECIFICATION	
AUDIO	
Internal audio amplifier	2x10 W class D
Low noise	-90dB
Efficiency	>90%
Audio Codecs	Mp3, PCM, G.729, G.722, GSM, A-law, u-law,
THD+N	0.1% @ PO = 5W, f = 1kHz, RL = 8Ω
HARDWARE	
Ethernet connector	1 x RJ 45
Power options	PoE +IEEE 802.3 at or external 12V/2A DC
PoE	IEEE 802.3at
Power consumption	Idle 1.8W, max 24W (depending on volume)
CPU	Allwinner H2+, Quad-core Cortex A7

SOFTWARE	
Web-interface	Dashboard with HTTPS based configuration, alarm settings
Sound adjustment	Echo-cancel, sound mute, silence suppression, paging start/stop tone, microphone boost/mute
Scheduler	Bulk adding, automatic fill-out, ring-tone upload
Remote provisioning	Automatic synchronizing of SIP-server scheduler and sound files; device discovery
Logging	Call, event and scheduler logs
CONSTRUCTION	
Dimension	DIN Rail 4M
ENVIRONMENT	
Operation temperature	-20°C to 70°C
Storage temperature	-40°C to 70°C
Humidity	10% to 95%, indoors
INPUT/OUTPUT	
Speaker output	4-8Ω, 2 x 10W
Line out	600Ω, 2V _{pp}
Relay	1 x 30VDC - DTMF and XML controlled
Input	SWTO_1 and SWTO_2 (call buttons)
Output	LED-1, LED2-2, LED-3 (RGB diode control)
Mic	plug for a condenser microphone
General I/O	USB, RS485
NETWORKING AND PROTOCOLS	
Protocols	IPv4, SIP, TCP, UDP, HTTP, RTP, DHCP, NTP
LAN protocols	PoE (IEEE 802.3at) Network Access Control (IEEE 802.1x), IP-music/audio broadcast
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)

Board Pinout



Board Dimensions



FREUND ELEKTRONIK A/S, IN COOPERATION WITH ITS SISTER COMPANY FREUND ELEKTRONIKA SARAJEVO, IS DEVELOPING IP-BASED INTERCOM, AUDIO, ACCESS CONTROL AND SMART HOME SOLUTIONS.

WE HAVE MORE THAN 30 YEARS OF EXPERIENCE IN THIS TECHNOLOGY FIELD AS DEVELOPER, MANUFACTURER AND RESALER COMPANY.

IN THE INDUSTRY, WE NEGOTIATE THE MOST INNOVATIVE SOLUTIONS WITHIN BUILDING COMMUNICATION. WE HAVE DAILY FOCUS ON DEVELOPMENT AND USER-FRIENDLINESS AND OUR PRODUCTS HAVE TECHNICAL HIGH QUALITY AND PLEASANT DESIGN.

AS A DEVELOPER AND MANUFACTURER OF OUR OWN IP-INTEGRA SYSTEMS, WE ARE ON TOP OF THE MOST ADVANCED SYSTEMS FOR DOOR TELEPHONY, PUBLIC AUDIO AND ACCESS CONTROL SOLUTIONS.

OUR DEVELOPMENT DEPARTMENT HAVE DEVELOPED, TOGETHER WITH OUR PARTNERS, ELEGANT AND ROBUST DOORPHONES, SIP-CENTRALS, TERMINALS, IP-SPEAKERS, ACCESS CONTROLLERS AND APPLICATIONS WITH INTELLIGENT FEATURES AND THE MOST ADVANCED TECHNOLOGY, BUT AT THE SAME TIME EASY FOR OUR CUSTOMERS TO USE.

FREUND GROUP IS ONE OF THE TOP PROVIDERS ON THE MARKET FOR IP-BASED BUILDING CONTROL AND COMMUNICATION AND RELATED SYSTEMS.