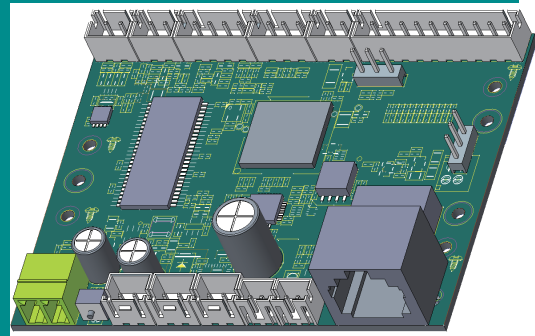


BM13 Phone Board / Tel Board

Embedded SIP voice control board for SIP phones, IP intercoms, paging terminals and customized communication devices.



Product Overview

BM13 is an embedded phone board and tel board designed for SIP phones, IP intercoms, paging terminals, emergency phones, help points and customized voice communication devices. It provides a compact IP voice control platform for manufacturers and system integrators developing network-based communication terminals.

With its compact hardware design and flexible interface options, BM13 can be integrated into wall-mounted SIP phones, industrial telephones, clean room phones, vandal-resistant phones, emergency call stations, paging call stations and broadcast intercom terminals. It helps reduce development time while supporting stable SIP voice communication, audio control, external device linkage and centralized deployment.

Core Advantages

- Embedded SIP phone board for OEM telephone, intercom and paging terminal development.
- Built-in 3W audio amplification to improve hands-free, intercom and paging playback volume.
- Programmable DC power output for high-power alarm devices or external peripherals.
- Dedicated audio output interface for connection to external high-power amplifiers.
- Flexible keypad, LCD, backlight, I/O and network interfaces for customized terminal design.
- PoE and DC power options available depending on model configuration.

Model and Hardware Summary

Model	PoE	Ethernet	Mounting Holes	Expansion Stud Holes	Dimensions
BM13	Supported	1 x Fast Ethernet	4	3	70 x 65 x 21 mm
BM13-L	Not supported	1 x Fast Ethernet	4	3	70 x 65 x 21 mm

Keyword positioning: BM13 can be described as a phone board, tel board, SIP phone board, IP tel board, SIP voice control board and IP intercom board for embedded voice terminal development.

Technical Specifications

Category	Specification
Telephone Functions	Local phonebook up to 1000 entries, blacklist, answered/dialed/missed/forwarded call records up to 400 entries, headset call-center mode, 10 ring tones, 8-level volume plus mute, single-button volume cycle adjustment and multi-level phone lock.
SIP Basic Functions	2 SIP accounts, hotline, call hold, call waiting, auto answer, call forwarding, call transfer, redial, mute, do not disturb, five-way conference, speed dial, voicemail, intercom, call pickup, call park, anonymous call, group pickup, call recording, remote control, LDAP phonebook, XML remote phonebook and Action URL.
Multicast Paging	Built-in multicast paging software supports up to 31 multicast groups, configurable receiving priority and interrupt paging.
IP Direct Calling	Supports direct calling by reachable IP address for local device-to-device communication.
SIP Audio	Narrowband codecs: G.711 A/U, G.729A/B/AB, G.726, iLBC. Wideband codecs: G.722 and L16. Supports VAD, CNG, AEC, PLC, AJB and AGC. Full-duplex hands-free communication with automatic echo cancellation.
SIP Security	TLS, HTTPS, SRTP (RFC3711), MD5/MD5-SESS authentication and AES encryption.
SIP Configuration	Plug-and-play configuration based on server provisioning, plus manual configuration through web interface and LCD.
Batch Deployment	HTTPS, HTTP, FTP, TFTP, RPS, SIP PnP, DHCP Option 66, custom DHCP Option 128-254, TR069, web configuration import/export, configuration template tools and periodic update checking.
Network Features	IPv4 and IPv6, OpenVPN, STUN NAT traversal, Rport, proxy and peer-to-peer SIP connection modes, DNS SRV (RFC3263), DTMF via In-band, RFC2833 and SIP INFO, HTTP/HTTPS web management, web packet capture, auto negotiation, DHCP Option 12/60 and Syslog.
Physical Interfaces	RJ45 network interface, DC interface, reset switch, 2 I/O outputs, 1 I/O short-circuit input, button backlight interface, LCD interface, LCD backlight interface and BM13 status LED.
Keypad Support	12 numeric keys, hands-free key, redial key, volume up/down keys, single-button volume cycle key, 6 programmable keys including 3 keys that can be routed by independent two-wire connection, plus 2 spare keys.
Power	802.3af PoE input up to 13W on supported model; DC 6-24V input; one onboard programmable power output for external peripherals.
Mechanical	70 x 65 x 21 mm, 4 screw mounting holes and 3 copper-stud expansion holes. Most connectors can be arranged on both sides of the PCBA; connector options include XH-90°, XH-180°, 2EDGK-R-90° and 180° types.
Environment	Operating temperature: -20 to 60°C. Operating humidity: 10% to 90%.
Packing	120 pieces per carton. Carton size: 46.8 x 38.4 x 23.7 cm.
Safety and Environment	RoHS. LVD safety: EN62368. CE EMC/radiation: EN301489.

Typical Applications
 SIP phones, IP phones, industrial telephones, clean room phones, vandal-resistant phones, emergency phones, help points, IP intercoms, paging terminals, broadcast call stations and customized voice communication terminals.

OEM Value
 BM13 gives equipment manufacturers a compact tel board platform for fast product development, easier system integration and long-term field deployment in voice communication projects.