

DATA SHEET

HK336MIC

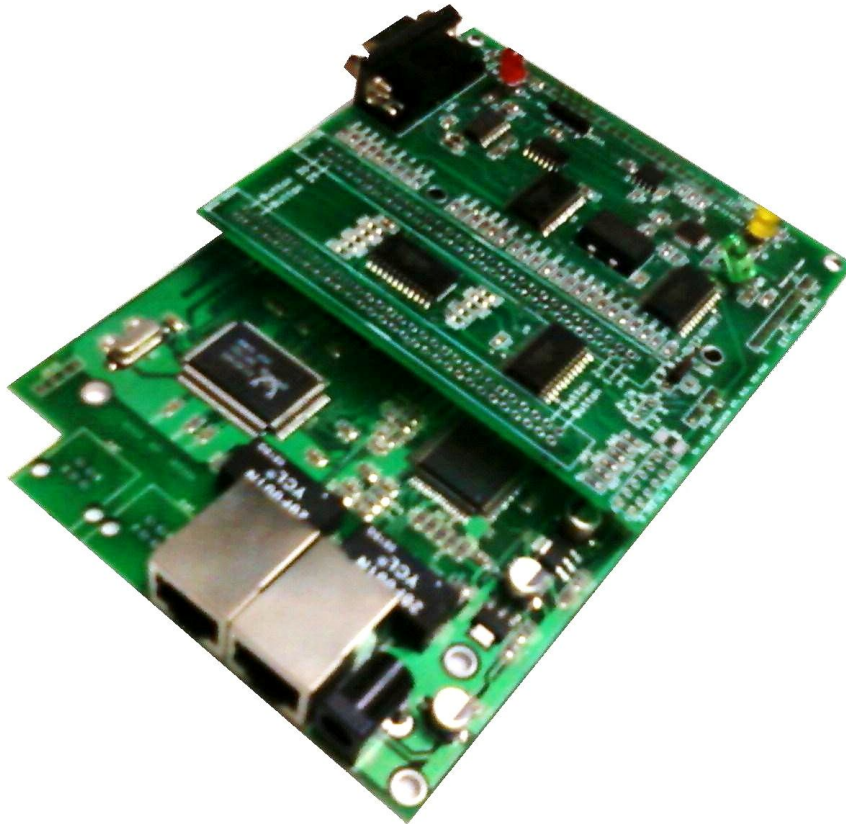


Introduction

HK336MIC is a low BOM reference design, based on HK336VCP hardware, for a wide range of VoIP consumer applications such as:

- Emergency response systems
 - Hospitals
 - Homes
 - Workplaces
- Conference room terminals
- Public announcement terminals
- Networked intercoms
- Networked paging systems
- Analog-VoIP bridges

The design comprises module that mates directly with HK336VCP base board. The design is flexible enough to accommodate as many as 24 user buttons. A built-in analog mode provides backup in case of network failures. Customized firmware is available for any of the above applications.



Features

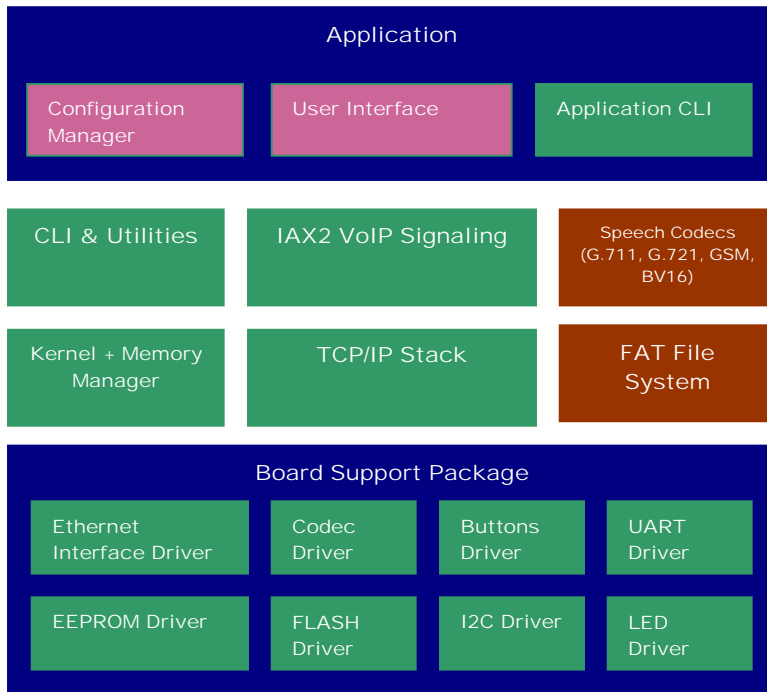
- Low cost
- Customizable design
- Built-in dynamic microphone amplifier
- Crisp voice quality
- Up to 24 user buttons with LED illumination
- Automatic switchover to analog mode on network failure
- Auxiliary input to hook up other sources of voice
- Voice activity meter for local voice level feedback
- Asterisk® PBX compatible

Technical Specs

- Processor subsystem
 - Texas Instruments 120 MHz DSP with on-chip high speed data RAM
 - On-board high speed program RAM
 - On-board EEPROM with interactive boot-loader
 - On-board 4 MB Flash
 - RS232 serial interface
 - Ethernet interface
- Networking
 - TCP/IP
 - DHCP for auto IP (static IP option available)
 - TFTP client to upgrade firmware and download voice files to FAT file system
 - IAX2/SIP for signaling and voice
 - RLOGIN server for remote device configuration
- Voice subsystem
 - On-chip high quality voice codec with built-in pre amplifier
 - Supported voice formats: BV16, GSM, G.711
- Call control
 - Fast auto answer for incoming call
 - User initiated call (using buttons)
- Visual indicators
 - Server connection
 - Call progress
- Single +5V DC power supply

Firmware

Mature firmware is available for immediate production. The firmware is based on highly optimized sk336 framework.

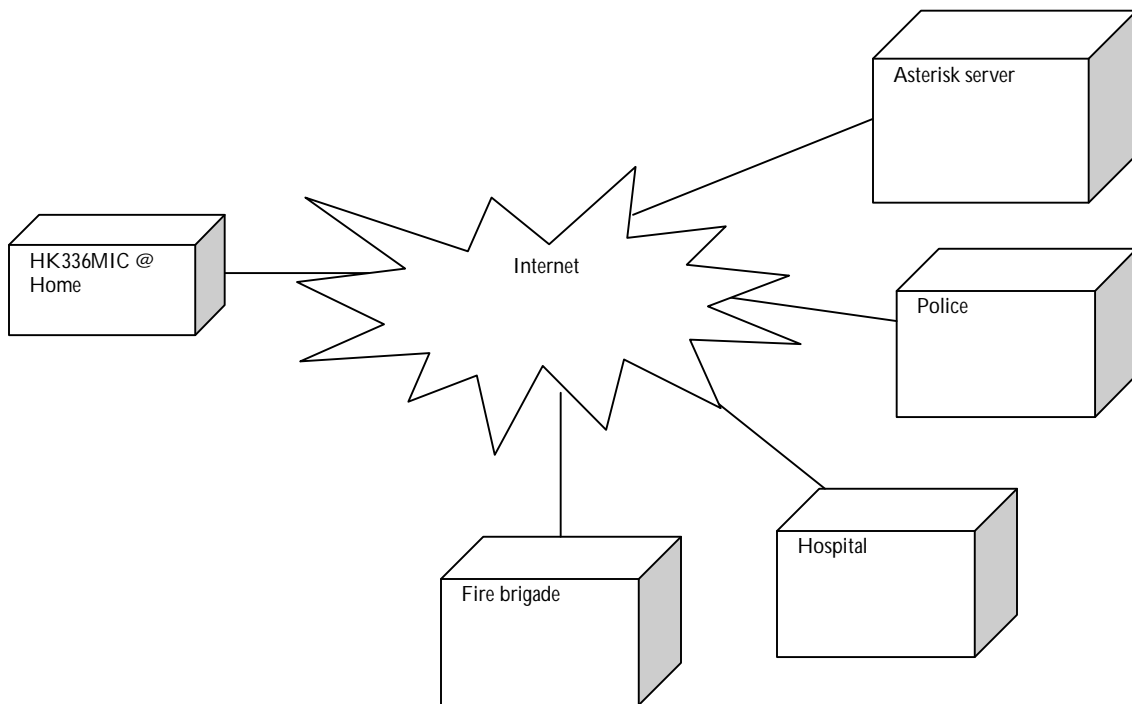


- EICSS component
- Third-party (open-source) component
- User component (available for HK336VCP hardware)

Application Examples

Emergency Response System

HK336MIC based emergency response system would hookup directly to internet via residential internet gateway. In case of emergency, user shall press emergency specific button and in turn, get connected to Asterisk server that would route that emergency call to emergency response center (hospital, police or fire brigade in this example). The system shall allow user to describe the nature of emergency and whether user needs immediate help.



Conference room terminals

In a conference room, each participant shall be provided a terminal based on HK336MIC design. Asterisk server is again at the heart of the system and would callback the participant required to speak. All terminals could be configured to be in talk simultaneously as well.

Licensing

Both royalty-based and royalty-free licensing models with unrestricted binary and source code use are available for firmware and hardware. Extended GERBER files along with complete BOM are available for immediate manufacturing of hardware. OrCAD schematics are available for licensing for further customization. We provide full assistance in sourcing parts/alternate parts and manufacturing. Additionally, hardware and firmware can be modified as per customer requirements. For further assistance, please contact sales@icss.com.