DECT/CAT-iq Handset Module

Integrating home cordless telephony into portable devices

Because the exceptional is our standard

Overview

DSP Group™'s DECT/CAT-iq handset module is a low-cost, small form-factor connectivity platform enabling consumer electronics (CE) manufacturers to easily integrate DECT/CAT-iq functionality into any portable device.

Based on DSP Group's DCX single chip, the DECT/CAT-iq handset module can be integrated as an add-on daughterboard, embedded on a portable device's main board, or connected as an external dongle. The module is connected to the host network processor via either UART/SPI for control and TDM for synchronous digital audio/data, or a USB for control and audio/data. The module's integrated analog front end (AFE) can also be directly connected to a portable device's microphone and speaker. Delivering superior coverage and wideband audio (HD voice), the handset module is ideal for service providers interested in expanding telephony services by integrating DECT/CAT-iq functionality into their portable devices.

Complementing DSP Group's comprehensive set of PSTN and VoIP telephony reference designs, the DECT/CAT-iq handset module includes a chipset, hardware, and a software reference design, as well as sample applications, documentation and support. Leveraging DSP Group's communications protocol and call control software stacks, the module reduces development risk, minimizes R&D costs, and lowers time to market, while guaranteeing CAT-iq support.

Features

- Simple and flexible host API, designed to completely offload a portable device from DECT and CAT-iq handling
- Single-chip architecture integrating an ARM9™ baseband processor and superior RF technology
- Full telephony, call routing (e.g. intercom, parallel calls, forwarding, transferring), multi-line, and mini-PBX support
- Integrated AFE module enabling a direct connection to a portable device's microphone and speaker
- Superb acoustic echo cancellation (AEC) for hands-free mode
- WB (HD) and NB audio support
- Wide range of host interfaces including USB for dongles, UART, SPI, and PCM/TDM/IOM-2/analog for easy embedding into a portable device
- CAT-iq and GAP compliance
- Worldwide DECT standard support
- Superior range and coverage with DSP Group's CleaRange™ technology suite
- Superior voice clarity with DSP Group's CleaRtalk™ technology suite
- Low power consumption and dynamic transmission control

Benefits

- Low-cost, small form-factor module and dongle design
- Comprehensive and proven DECT, CAT-iq and telephony call-control capabilities in a single module and reference application
- Roadmap for future CAT-iq profiles using same API and Flash upgradability
- Single source for all hardware and software components
- Advanced CAT-iq cordless connectivity with fast time to market
- Reduced customer development/implementation effort and risk with ensured standard compliancy
- Full set of hardware and software reference designs, SDKs and applications, enabling short development cycle
- Full reference code for Android applications
- DSP Group's low-to-high-end PSTN and VoIP base station designs and DECT/CAT-iq module/dongle for home gateways
- DSP Group's advanced technologies for improved voice coverage and high data rate over DECT

Applications

- DECT/CAT-iq module for tablets
- DECT/CAT-iq module for portable devices (e.g. MID)
- DECT/CAT-iq USB dongle for portable devices (e.g. Netbook)

DSP GROUP

at home in your wireless world

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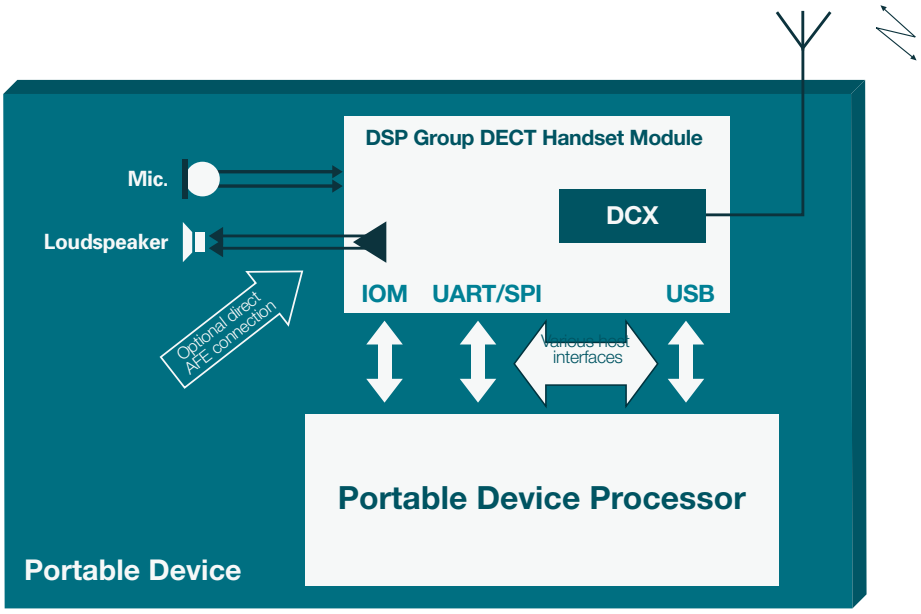
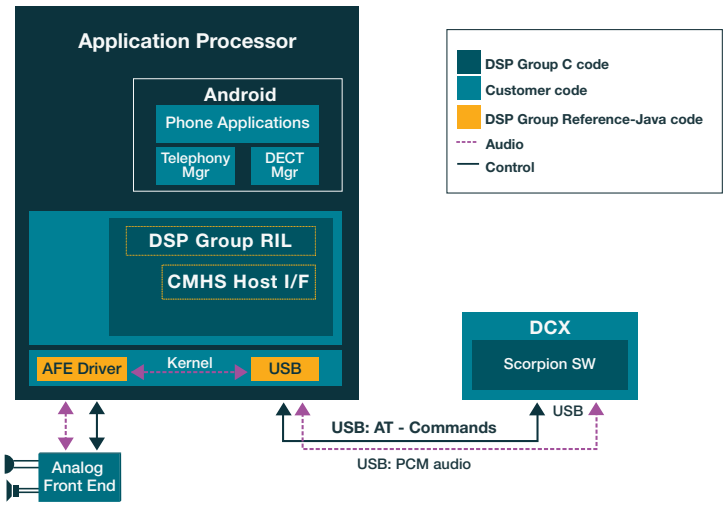
Block Diagram



DSP Group's DECT Handset Module Connected to an Android Application



DSP Group, Inc. (NASDAQ: DSPG) is a leading global provider of wireless chipset solutions for converged communications at home. Delivering system solutions that combine semiconductors and software with reference designs, DSP Group enables consumer electronics (CE) manufacturers to cost-effectively develop new revenue-generating applications with fast time to market. At the forefront of semiconductor innovation and operational excellence for over two decades, and with a growing share of the wireless home telephony market, DSP Group provides a broad portfolio of wireless chipsets integrating DECT, Wi-Fi, PSTN and VoIP technologies with state-of-the-art application processors. Enabling converged voice, audio, video and data connectivity across diverse consumer products – from cordless and VoIP phones to home gateways and connected multimedia screens – DSP Group proactively partners with CE manufacturers to shape the future of converged communications at home.

For more information, visit **www.dspg.com**

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