

Overview

DSP Group's™ XceedR™ cordless chipsets provide a total integrated digital cordless solution that includes all required digital baseband, analog interface and RF functionality. Supporting all RF bands and cordless protocols, XceedR chipsets enable worldwide coverage. Enhanced with reference hardware and software packages, the chipsets are highly versatile and support a wide range of cordless solutions. These solutions include simple low-end to advanced feature-rich cordless phones, cordless headsets, home monitoring and automation devices over DECT, and DECT CAT-iq module/dongles for home gateways (HGWs) and office gateways, integrated access devices (IADs), and embedded multimedia terminal adapters (eMTAs). The XceedR chipset portfolio combines unique wireless communications technology with a wide array of telephony features and audio- and voice-processing algorithms to provide the industry's best system cost and smallest footprint.

Features

- Powerful ARM® processor or TeakLite™ DSP core
- Rich set of telephony and advanced audio processing
- Support of all cordless telephony RF bands: 1.7GHz-1.9GHz, 2.4GHz
- Worldwide DECT, EU, Korea, Taiwan, Latin America and US DECT6.0
- FHSS DECT and WDCT at 2.4GHz
- GAP compliance, CAT-iq 1.0/2.0 support
- Multi-base, multi-handset, multi-line support
- Embedded PBX call control features for both home and office
- WB vocoders: G.722, G.711.1
- NB vocoders: G.726, G.727, G.711
- Superior range and coverage with DSP Group's CleaRange™ technology suite
- CleaRtalk™ flexible noise reduction (FNR), dual-microphone acoustic noise reduction (ANR), flexible listening enhancement (FLE), wideband synthesis (WBSS), and enhanced acoustic echo canceller (EAEC)
- CleaRplay™ polyphonic ringing, text-to-speech, and digital telephone answering machine (DTAM)
- Low power consumption: > 24/15-hour talk time for NB/WB, 2-week standby time
- Eco-friendly functionality, ETSI-standard zero radiation mode for idle base station
- High RF Rx sensitivity, dynamic Tx power control
- Integrated LCD controller for segment display
- Full duplex hands-free speakerphone
- High bit-rate data over DECT
- Data application to handset
- DECT security features: encryption and authentication
- Software patching and in-field software upgradability including software update over the air (SUOTA)
- Complete hardware and software reference designs with full telephony features
- Simple and flexible host API for controlling XceedR cordless chipsets via an external host

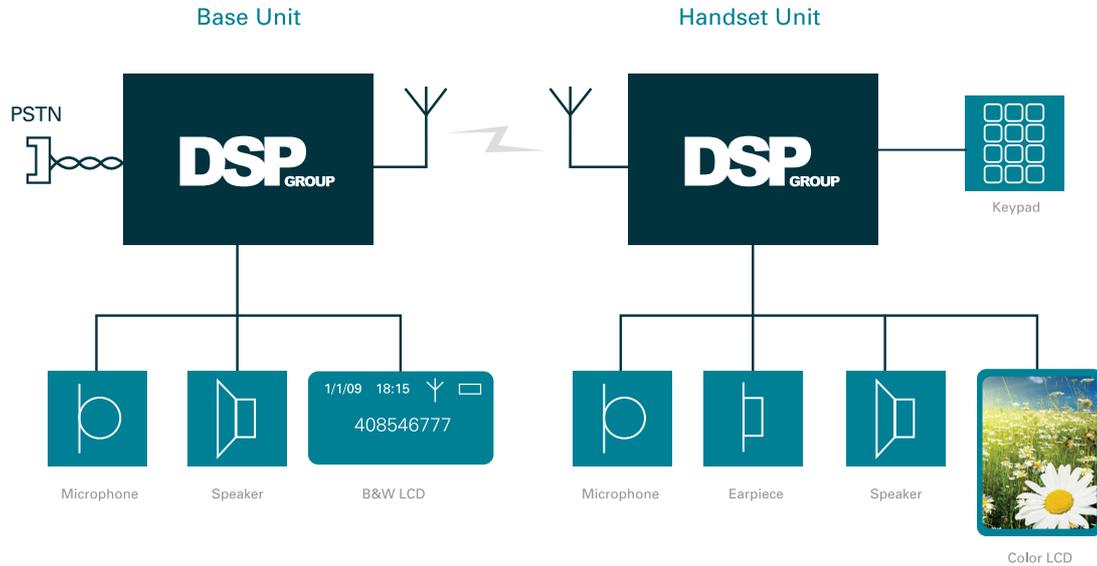
Benefits

- Compact design with low-cost system bill of materials (BOM)
- Worldwide coverage, multi-country support
- CAT-iq support and interoperability
- Clear, high-quality and high-definition audio
- Long effective range
- Increased talk time
- Low radiation
- Full PBX and telephony features
- High computation power
- Secured system with privacy
- Advanced mobile phone-like applications and features
- Increased service offering through data application to handsets
- Short development time. Low cost and risk
- Easy integration with third-party host processor

Applications

- Digital cordless telephone
 - Simple to advanced multi-line base
 - Simple B&W to feature rich color handset
- DECT CAT-iq module/dongle for HGW, IAD and eMTA
- Cordless headset
- Home monitoring and automation (e.g. digital baby monitoring, security, control, metering)
- Digital telephone answering machine
- Fax with cordless extension

System Diagram



Development Kit

Hardware development boards with full reference software and SDK



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.

Copyright © 2010, DSP Group, Inc. All rights reserved. DSP Group, Inc. and DSP Group Logo are trademarks of DSP Group, Inc. Other third-party trademarks are property of their respective owners. All product information, dates and figures are not warranted as accurate or complete, and may be revised based on further information without notice.