

### DECT (DIGITAL ENHANCED CORDLESS TELECOMMUNICATIONS)

Set to become a world standard for cordless, DECT has been renamed to abbreviate "Digital Enhanced Cordless Telecommunications". Philips Semiconductors offers very competitive complete DECT solutions including hardware, software and support for applications ranging from residential to 2-line business systems. Both off-the-shelf and customized solutions are available.

#### Residential and 2-line business systems

- The RF transceiver incorporates a double superheterodyne receiver that is composed of the UMA1022M 2 GHz dual frequency synthesizer, SA639 FM IF and UAA2067 front end.
- The PCD509x (ABC) family is a range of versatile low-power GAP-compliant single chip baseband processor ICs designed to allow flexibility in the design of residential and small PBX systems and data applications and enables a high degree of customization of the MMI e.g. speaker phone and conference calling.
- The PCD5096 (Universal Codec) integrates two audio codecs, a DSP (performs echo cancellation, conference call, DTMF, dial tone generation) and two PSTN interfaces onto one chip. Together with the ABC family the universal codec meets all the requirements to create two-line PSTN low-cost digital cordless systems and add functionality to high-end corded phones. In addition, the IOM-2 interface can provide analog extensions for ISDN.
- Philips Semiconductors also provides GAP-compatible and approved DECT software tested in compliance with TBR22; both standard catalogue and customized MMIs.

Philips Semiconductors' DECT ICs include:

**UAA2067G** - Low voltage RF transceiver–2 GHz

**SA639** - Low voltage mixer FM IF system with filter amplifier and data switch

**UMA1022M** - Low voltage frequency synthesizer for radio telephones

**CGY2030/CGY2032** - Low voltage MMIC power amplifiers

**PCD5091/2/3/4/5** - DECT baseband processor–ADPCM, burst-mode controller and microcontroller

**PCD5096** - Universal CODEC

**PCA1070/TEA1118A** - Line Interface (Basestation)

**PCD3316** - Caller ID/Call Waiting (CIDCW)

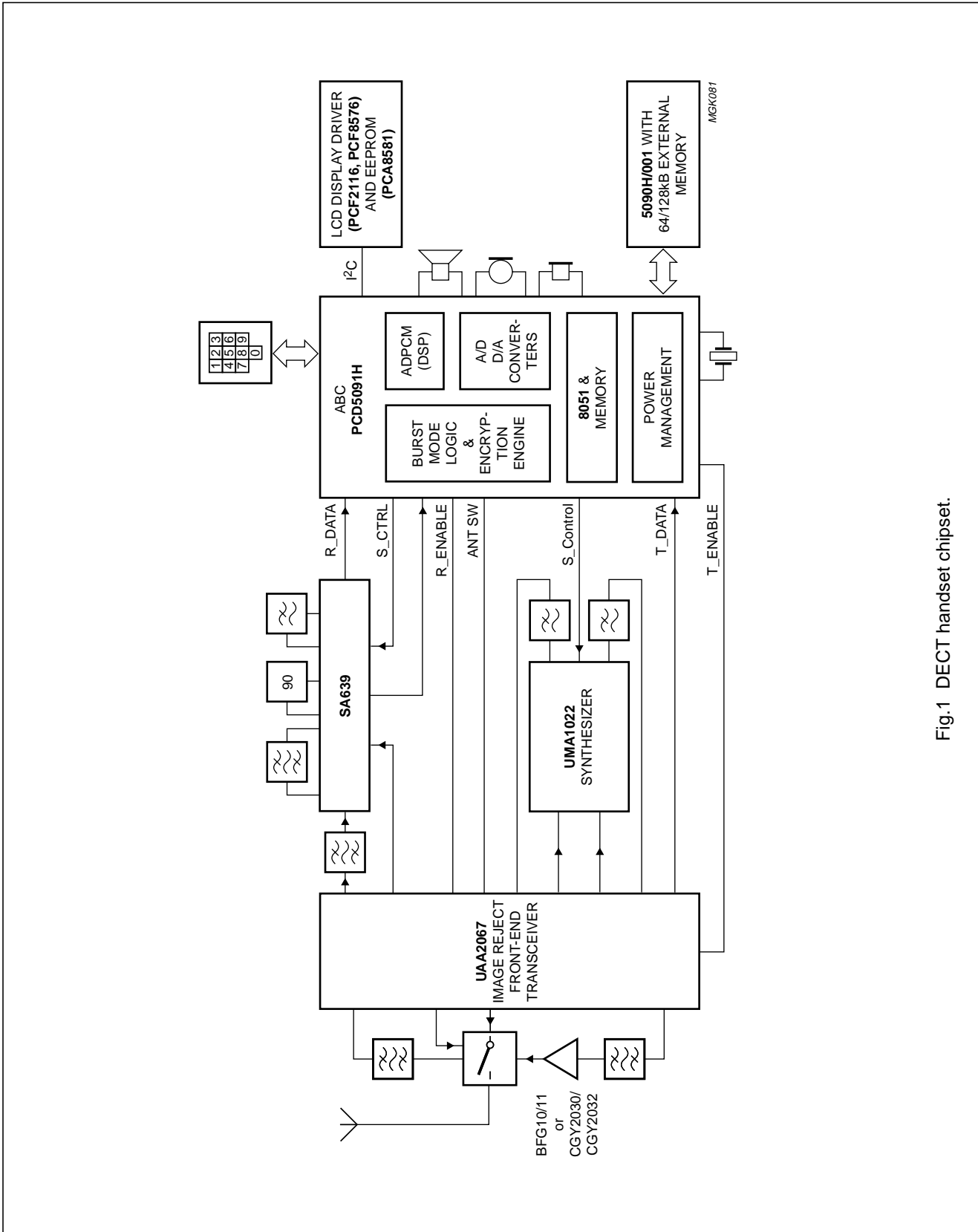


Fig.1 DECT handset chipset.

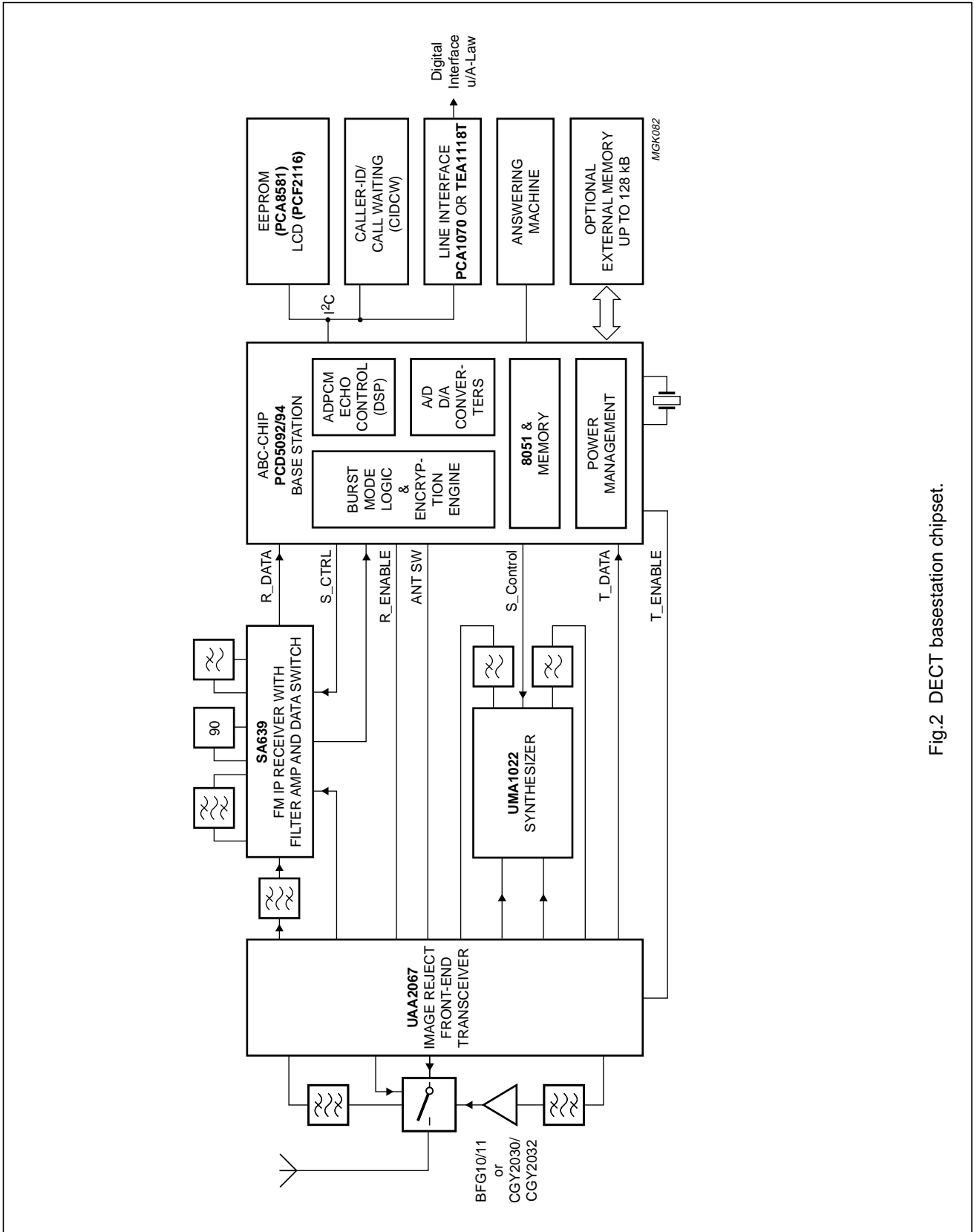


Fig.2 DECT basestation chipset.

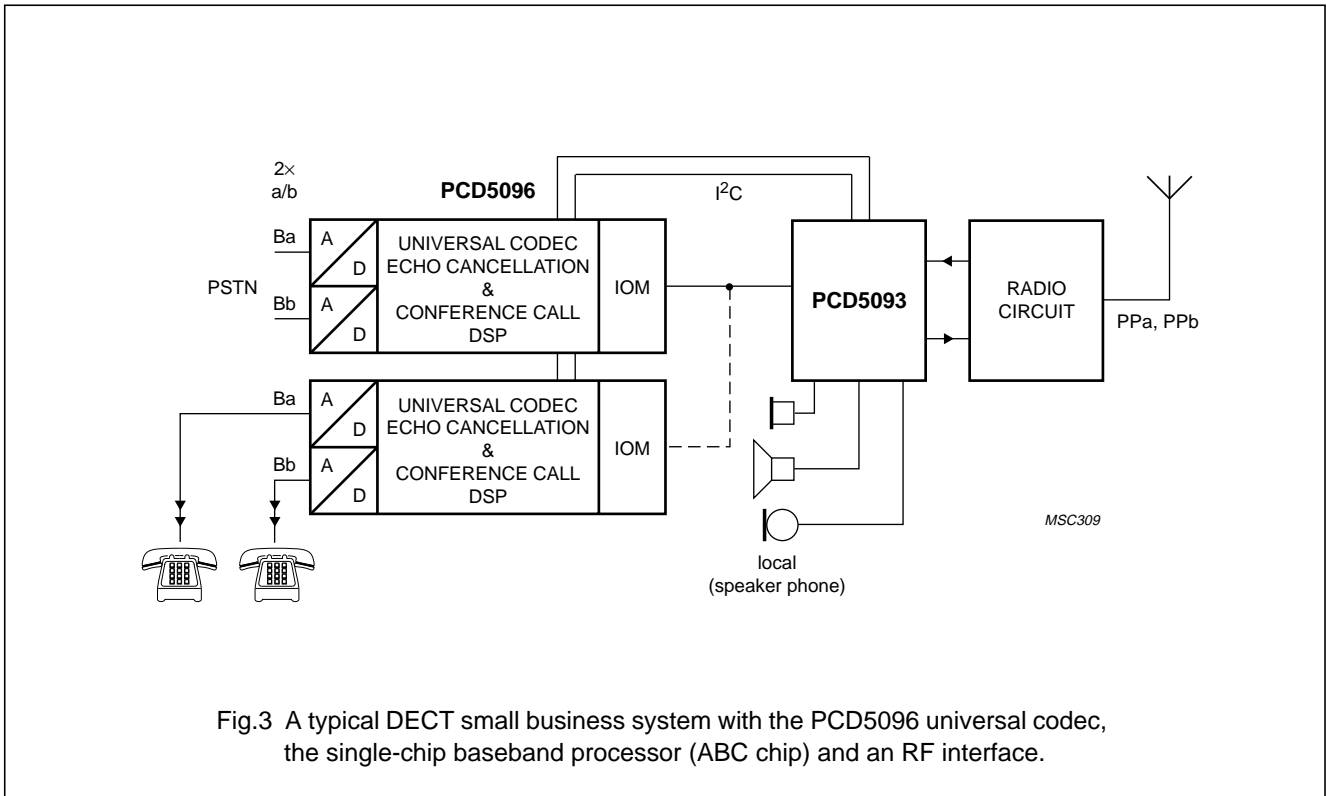


Fig.3 A typical DECT small business system with the PCD5096 universal codec, the single-chip baseband processor (ABC chip) and an RF interface.