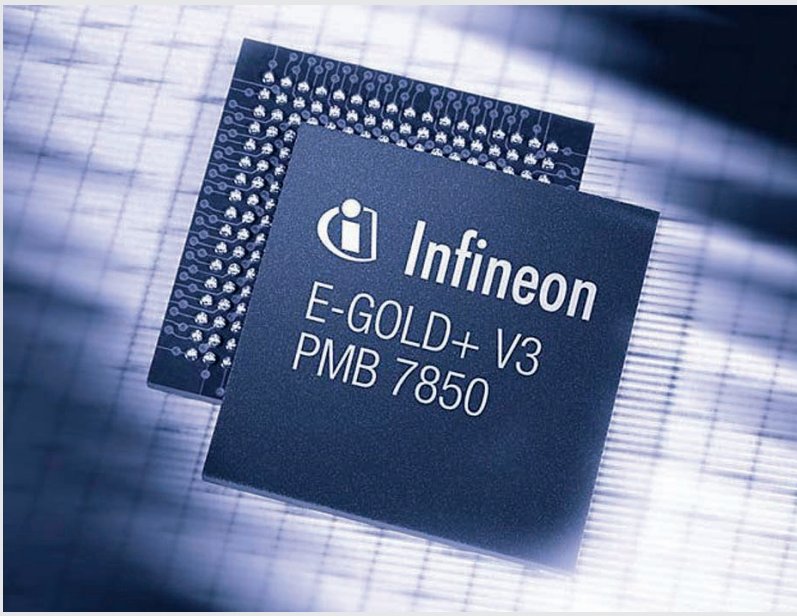
E-GOLD+ V3 is a GSM/GPRS single chip mixed signal baseband IC containing all analog and digital functionality of a cellular radio. It is designed as a single chip solution, integrating the digital and mixed signal portions of the base band together with 2 Mbit on-chip SRAM in a leading edge 0.18 µm 1.8 V technology.

E-GOLD+ V3 perfectly meets the ever increasing demands of the GSM cellular subscriber market for low/mid-range devices with data-enabled terminals at low costs.

Due to its flexible interfaces E-GOLD+ V3 can be set up easily to control a wide variety of RF architectures. In combination with the Infineon Technologies' SMARTi RF solution a complete 2 chip system approach is achieved, which results in an extremely compact implementation, very low power consumption and cost effective system performance.



PMB 7850

Applications

- GSM/GPRS/HSCSD Mobile Phones and Data Modems

Key Features

- C166S MCU core, 52 MHz
- OAK+ DSP core, 78 MHz
- 2 Mbit on-chip SRAM
- GPRS cipher units GEA1, GEA2
- I²C bus interface (e.g. PMB 6810)
- I²S PCM digital audio Interface
- Multimedia Card interface
- 2nd SIM card interface
- Ringer support for PWM output to earpiece
- 2 IrDA compatible UARTs
- Port logic for ext. port signals
- Logic port signal arranger
- General Purpose IOs
- Advanced dynamic power management
- External memory interface to 1.8 V and 3 V devices
- Page Mode Flash interface
- JTAG IEEE 1149.1 Boundary scan and debug interface
- OCDS level 1 debug support

Firmware

- FR, HR, EFR
- Adaptive Multi Rate (AMR-NB)
- GPRS class 12, CS 1-4
- HSCSD class 10
- Echo cancellation
- Noise reduction
- Speech recognition support optional
- Voice memo support
- MP3 decoding support

Technology

- Based on proven Infineon mixed signal 0.18 µm technology
- 1.8 V - 3.3 V digital IOs
- 1.8 V internal operating voltage for digital parts
- 2.5 V internal operating voltage for analog parts
- P-LFBGA-208 package, 12x12 mm², 0.65 mm ball pitch

Documentation/Development and Support Tools

- Product Overview
- Specification
- Application Note
- Evaluation Board
- CD-ROM Support Package

Software

- Complete software solution ranging from layer 1 up to MMI for GSM phase 2+ incl. HSCSD, GPRS and many additional features offered by Comneon

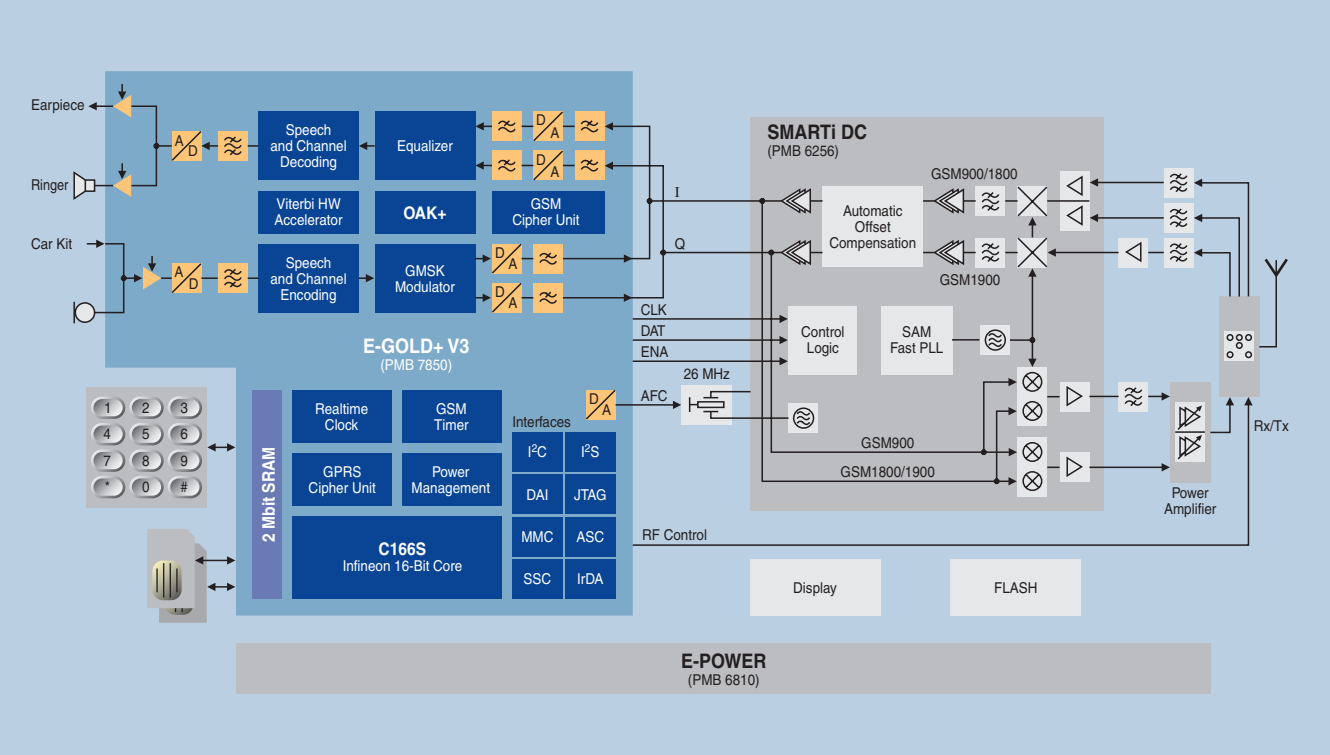
PMB 7850

GSM/GPRS Single Chip Baseband IC

Infineon technologies

Never stop thinking.

Application Example GSM/GPRS Terminal



Heading to the Future

With GPRS and HSCSD new exciting applications will create new opportunities in mobile communications. With E-GOLD+ V3 Infineon Technologies enables the customers to benefit from such a tremendous market opportunity.

E-GOLD+ V3 provides both, analog functions, like analog baseband filters, ADCs, DACs and digital signal processing power.

To provide the MCU/DSP capabilities, EGOLD+ V3 makes use of a combination of Infineons well proofen C166 architecture and an OAK+ DSP.

Its E-GOLD+ V3 solution for the highly integrated baseband as a system on a chip is a result of the corporation's successful initiative from a mere silicon vendor to a system solution provider.

With its system level know-how in the area of GSM, GPRS, EDGE, and UMTS Infineon Technologies leads the way in providing complete system solutions for wireless communication offering a complete semiconductor product range to cover all low- to high-end terminals.

This includes Baseband ICs, RF products, Power Management ICs, Power Amplifier, Bluetooth™ modules, GPS, and many more.

Infineon Technologies system solutions are jointly developed with its system integration house, Danish Wireless Design A/S in Denmark and its wireless software development house Comneon in Germany.

How to reach us:
http://www.infineon.com

Published by
Infineon Technologies AG,
St.-Martin-Strasse 53,
D-81541 München

Attention please!

The information herein is given to describe certain components and shall not be considered as warranted characteristics.

Terms of delivery and rights to technical change reserved.

We hereby disclaim any and all warranties, including but not limited to warranties of non-infringement, regarding circuits, descriptions and charts stated herein.

Infineon Technologies is an approved CECC manufacturer.

Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office in Germany or our Infineon Technologies Representatives worldwide.

Warnings

Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office.

Infineon Technologies Components may only be used in life-support devices or systems with the express written approval of Infineon Technologies, if a failure of such components can reasonably be expected to cause the failure of that life-support device or system, or to affect the safety or effectiveness of that device or system. Life support devices or systems are intended to be implanted in the human body, or to support and/or maintain and sustain and/or protect human life. If they fail, it is reasonable to assume that the health of the user or other persons may be endangered.

Ordering No. B113-H7805-G1-X-7600
Printed in Germany
PS 02021. NB

Published by Infineon Technologies AG