**The INCA-S (PSB 21483) is a single-chip terminal solution featuring S_0 interface, Analog Front End (AFE), DSP with full duplex handsfree speaking, 16-Bit microcontroller, USB, and other terminal specific functionality.**

The INCA-S Evaluation Board (SIPB 21483) is a versatile and ideal tool to evaluate the functions of the PSB 21483 and become familiar with the high performance device.

The Analog Front End (AFE) circuitry on-board connects the handset, headset, and acoustic box. The S_0 Interface circuitry, RAM and FLASH memory are installed and all Interfaces and I/O ports are accessible. LEDs and switches are also provided on the board.

Powerful Windows 95/98/NT based software is also provided to support register programming in hexadecimal and physical values, track file recording and storage, memory access, and a parameter plot feature.
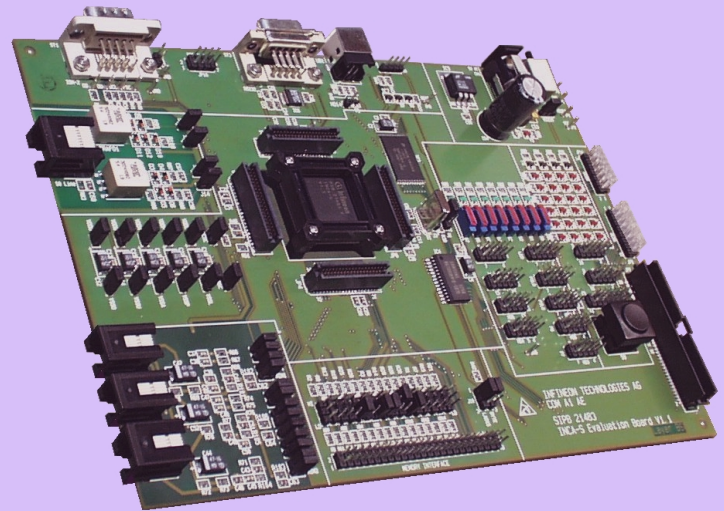
Functionality

The INCA-S Evaluation Board enables in-system testing of the INCA-S (PSB 21483) chip. All port pins are available at headers to connect external peripherals. For test purposes, 8 switches and 8 LEDs as well as a 6x4 LED matrix are available on the board.

The fully equipped on-board AFE connects the handset, headset, and acoustic box. The Line Interface is set up to connect directly to an S_0 line.

The IOM-2 Interface can be directly accessed on a connector. The Asynchronous Serial Controller (ASC) Interface can be accessed via a RS232 driver device.

Connectors for the Lauterbach OCDS Debugger and TRACE32 as well as the hitex JProbe 166 are provided.

Hardware Features

- Supports INCA-S (PSB 21483) chip in TQFP-144 package
- Flash (1 M x 8 / 512 k x 16) and SRAM (32 k x 8) on-board
- Analog interfaces to connect a handset, headset, and acoustic box with 20 Ω loudspeaker
- Power supply on-board
- RS 232 Interface
- S_0 Interface
- OCDS connector for Lauterbach's or hitex's ICD
- TRACE32 connector for Lauterbach memory analyzer
- IOM-2 Interface
- General purpose ports (GPIO)
- 8 LEDs and 8 switches for GPIO
- 6x4 LED matrix for Terminal Specific Functions (TSF)

Software Features

- PC software for Windows 95/98 and Windows NT
- Access to the DSP and micro-controller function registers
- Registers grouped by module name
- Parameter view in physical units
- Register view by hexadecimal values
- Pop-up menus for easy module mode selection
- Track tool with import and export feature
- Memory modify tool
- Plot tool for register trace
- Bootstrap download tool, and monitor driver
- Easy installation process
- Deinstallation tool provided

SIPB 21483

INCA-S Evaluation Board

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Hardware Description

The INCA-S Evaluation Board is designed to be very flexible. There are enough jumpers to permit selection of a variety of working modes on the board. The LEDs and switch array are on-board and can be connected via flat cable.

- The Analog Front End (AFE) Interface can be disconnected from the analog glue circuitry.
- The S_0 Interface circuitry can be disconnected from the device for test purposes.
- The start-up configuration can be configured.
- The chip select lines for the RAM and FLASH can be changed and disabled on the board.
- The Asynchronous Serial Controller (ASC) and the Synchronous Serial Controller (SSC) can be used; the ASC is accessed via RS232 driver.

Accessories included

- Handset
- AC/AC Converter
- RS 232 cable
- USB cable
- Master Software
- Documentation
- Board schematics

Purchase Information

- SIPB 21483: Q67230H1267

Additional Tools

- Acoustic box SIPB 21486: Q67230H1305

Block Diagram of INCA-S Evaluation Board
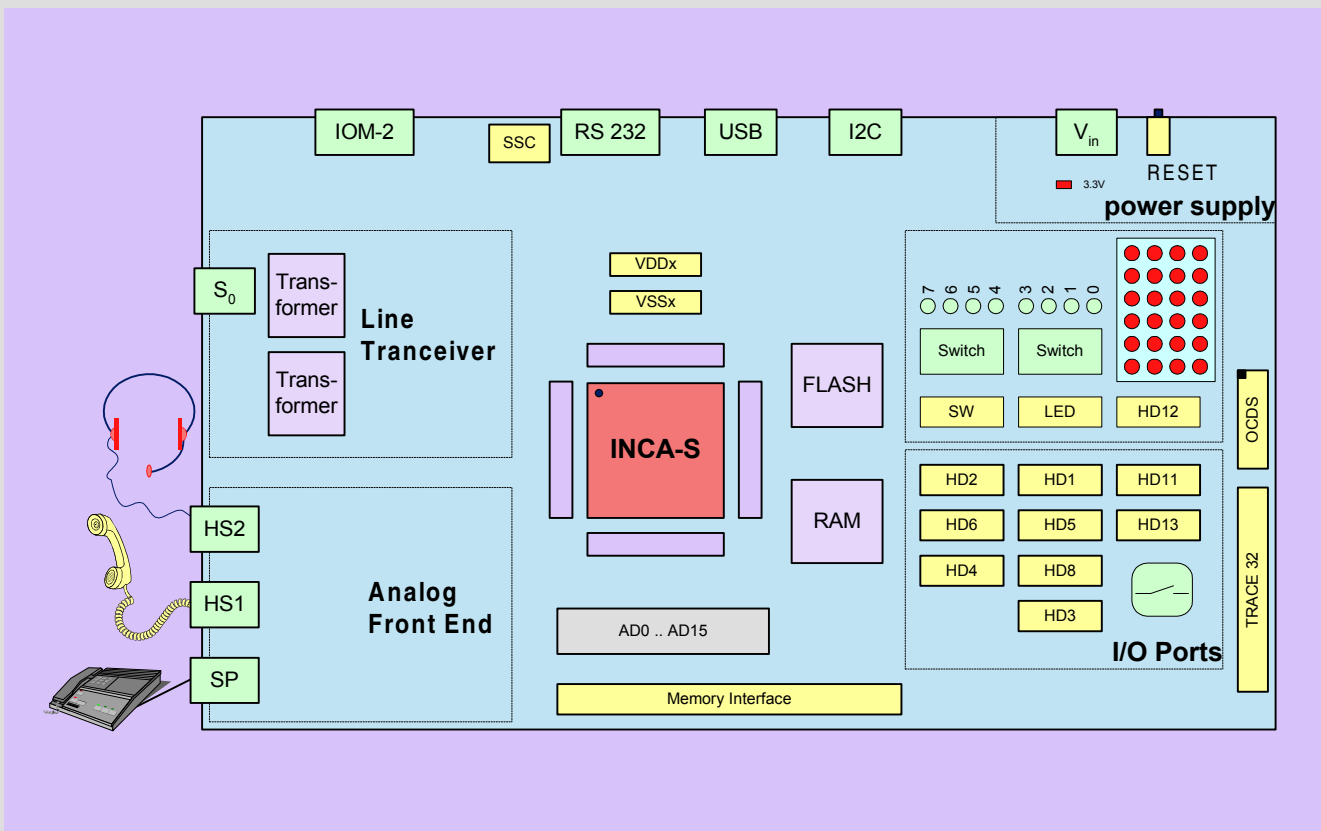
Published by Infineon Technologies AG