

PCI3700

TIA/EIA-136/GSM

PCI3700 TIA/EIA-136/GSM Integrated Baseband Processor

GSM GENERAL FEATURES

Complete GSM Series 4, 5, and 11.10 specification compatibility

Supports up to 14.4 kbps circuit-switched data services

Supports Type 1, Class 12 General Packet Radio Service (GPRS)

TIA/EIA-136 GENERAL FEATURES

Complete TIA/EIA-136 baseband solution, exceeding all TIA/EIA-136-270 specifications

Supports TIA/EIA-136-310, 136-350, 136-320 Data Services and SMS

PCI3700 GENERAL FEATURES

Low voltage operation

Fully programmable software-controlled power management

Microprocessor-DSP interface allows additional Physical Layer features

Bluetooth™ Interface

Voice Recognition (VR)

PCI3700 MICROPROCESSOR SUBSYSTEM FEATURES

Powerful and efficient 32-Bit RISC ARM microprocessor core

Two onboard UARTs, one with hardware flow control

Keypad interface (matrix programmable)

50 general purpose I/Os

2 general purpose timers

SIM card interface

PCI3700 PHYSICAL LAYER PROCESSING FEATURES

Internal RPE-LTP, GSM EFR, TIA/EIA-136-410 ACELP, and AMR Vocoders

Discontinuous Transmission support (DTX)

Programmable modem acquisition, modulation/demodulation, and channel coding/decoding

Built-in acoustic signal processing

Complete baseband AMPS functionality

Internal Manchester decoder

Viterbi hardware coprocessor

GSM Fire/Cipher Accelerator

PCI3700 MIXED SIGNAL FEATURES

Eight input 10 bit ADC for auxiliary measurements of analog signals

Four output Pulse Width Modulated Digital-to-Analog converters for user-defined analog control

GMSK, $\pi/4$ DQPSK, and 8 PSK $3\pi/8$ rotation modulation with pulse shaping

Two 10-Bit D/A converters for I/Q transmission

Programmable variable gain amplifiers for Tx and Rx paths

Four 10-Bit Aux. D/A converters

Two 10-Bit A/D converters for receive I and Q

10-Bit D/A and A/D converters for AMPS mode

Looking for a baseband processor that will dramatically expand the market for your wireless products? Look no further. As the world's first combination TIA/EIA-136/GSM integrated baseband processor, PrairieComm's PCI3700 enables you to provide wireless handsets that access nearly 100% of the world's wireless coverage. That's more than one quarter of a billion wireless consumers.

The only component of its kind, the PCI3700 combines two of the world's most widely used cellular standards. As a result, consumers will be able to make and receive phone calls, retrieve voice mail, and have wireless Internet access from a single digital cellular phone—virtually worldwide.

With PrairieComm's PCI3700, you'll experience The Power To Compete like never before. After all, who else can offer you such a feature-rich solution in a single chip design, a solution that enables you to create a smaller, more reliable and higher functioning phone than any of your competitors?



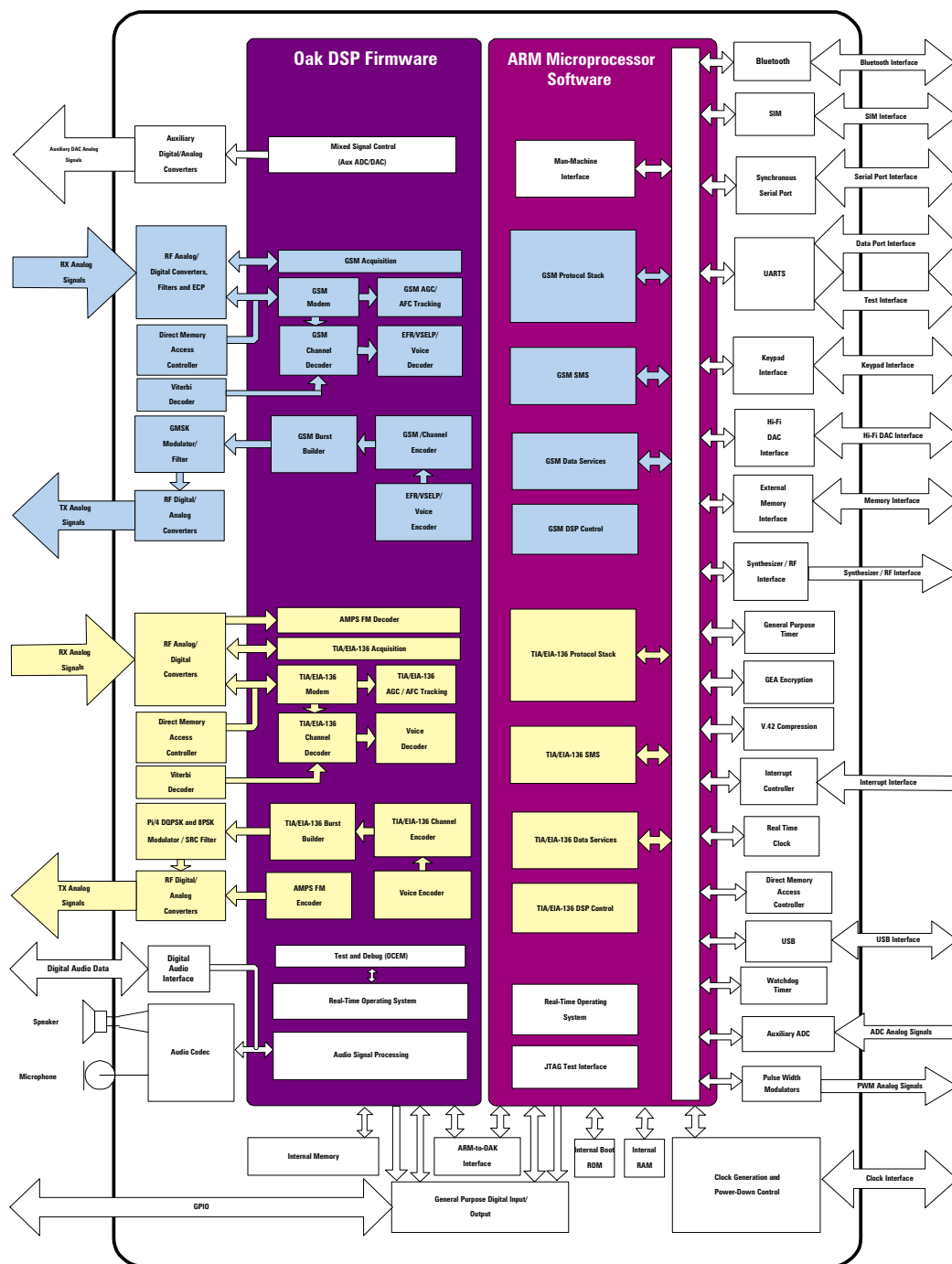
BENEFITS

Handset manufacturers now can . . .

- produce handsets that can be used worldwide
- greatly expand the markets for their products
- increase brand awareness across multiple countries and standards
- achieve lower handset costs through greater sales volume

 **PRAIRIECOMM**
The Power To Compete™

PCI3700 TIA/EIA-136/GSM Integrated Baseband Processor



ELECTRICAL SPECIFICATIONS

Low 2.5 V DC operation for Digital Core and Mixed Signal blocks

2.7 to 3.6 V DC operation for I/O pads

Operating Temperature Range: -40 to +85°C

Storage Temperature Range: -55 to +150°C

Clock Frequencies: 13 MHz, and 32 kHz sleep mode

Chipset allows mobile up to 350 hours of standby time

PACKAGING

256-ball Flex PBGA package with 0.8mm pitch



1600 Golf Road ♦ Suite 600 ♦ Rolling Meadows, IL 60008 ♦ phone 847-871-1800 ♦ fax 847-871-1900 ♦ www.prairiecomm.com

©2000, PrairieComm, Inc. All rights reserved. PCI3700 and The Power To Compete are trademarks of PrairieComm, Inc.
All other trademarks are properties of their respective companies. PrairieComm reserves the right to make changes to product information and specifications without notice.