DESCRIPTION

The PT9250 is an advanced single chip GPS receiver to integrate baseband, RF and flash memory into the 7mm x 10mm package making for an extremely compact design. This advanced solution offers best-in-class acquisition & tracking sensitivity, TTFF and accuracy. The PT9250 architecture uses an FFT and Matched Filter that delivers performance equivalent to more than 75,000 correlators. This represents a quantum leap forward in GPS performance. The PT9250's architecture enables unmatched TTFF at low signal levels. The PT9250 includes a powerful GPS DSP integrated with a 32-bit RISC microprocessor, 1Mb of SRAM and 4 Mb flash memories. The PT9250 also integrates a built-in low power RTC circuit for low power operation and battery backup RAM for satellite information. PTC supports full reference design, demonstration system, software evaluation tools and other supporting documentation.

APPLICATIONS

- GPS receivers
- Vehicle navigator
- Cellular phone
- PDA
- PMP

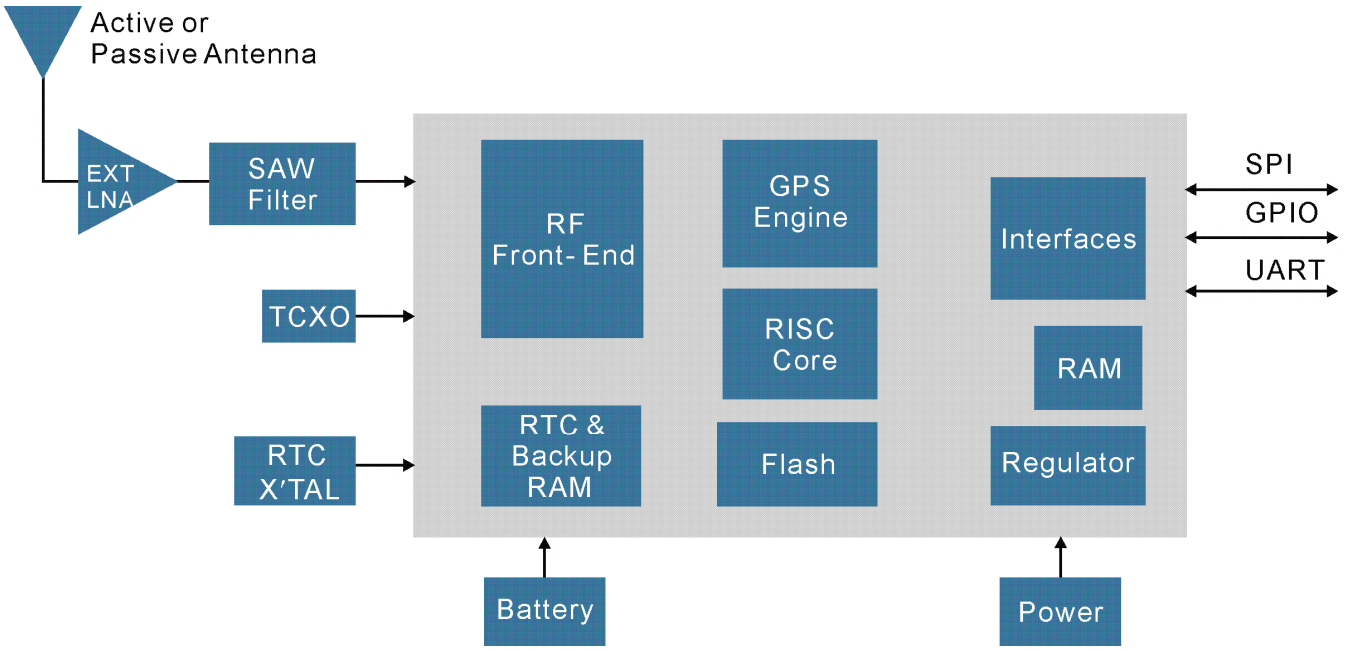
FEATURES

- Reception frequency : 1575.42 MHz (L1 band, CA code)
- Reference clock (TCXO) frequency : 16.368 MHz or 16.369 MHz
- Best-in-class acquisition and tracking sensitivity, TTFF and accuracy [1].
  - Tracking sensitivity -159 dBm
  - Acquisition sensitivity -142 dBm
  - Cold start 33 sec, warm start 32 sec and hot start 1 sec
  - 5m position accuracy for autonomous[2]
- SoC to integrate major RF receiver, digital baseband and flash memory
- 48 channel acquisition and tracking engine
- 32 bits RISC CPU (MIPS)
- Internal Low power Real Time Clock
- Battery back-up SRAM
- 2-channel UART communication port
- SPI host interface
- 2 External interrupts
- Watch dog timer support
- 16 GPIOs
- 1 PPS output
- Support NMEA-0183(V3.01)
- 140 balls LFBGA
- Temperature range -40^{0}C/+85^{0}C

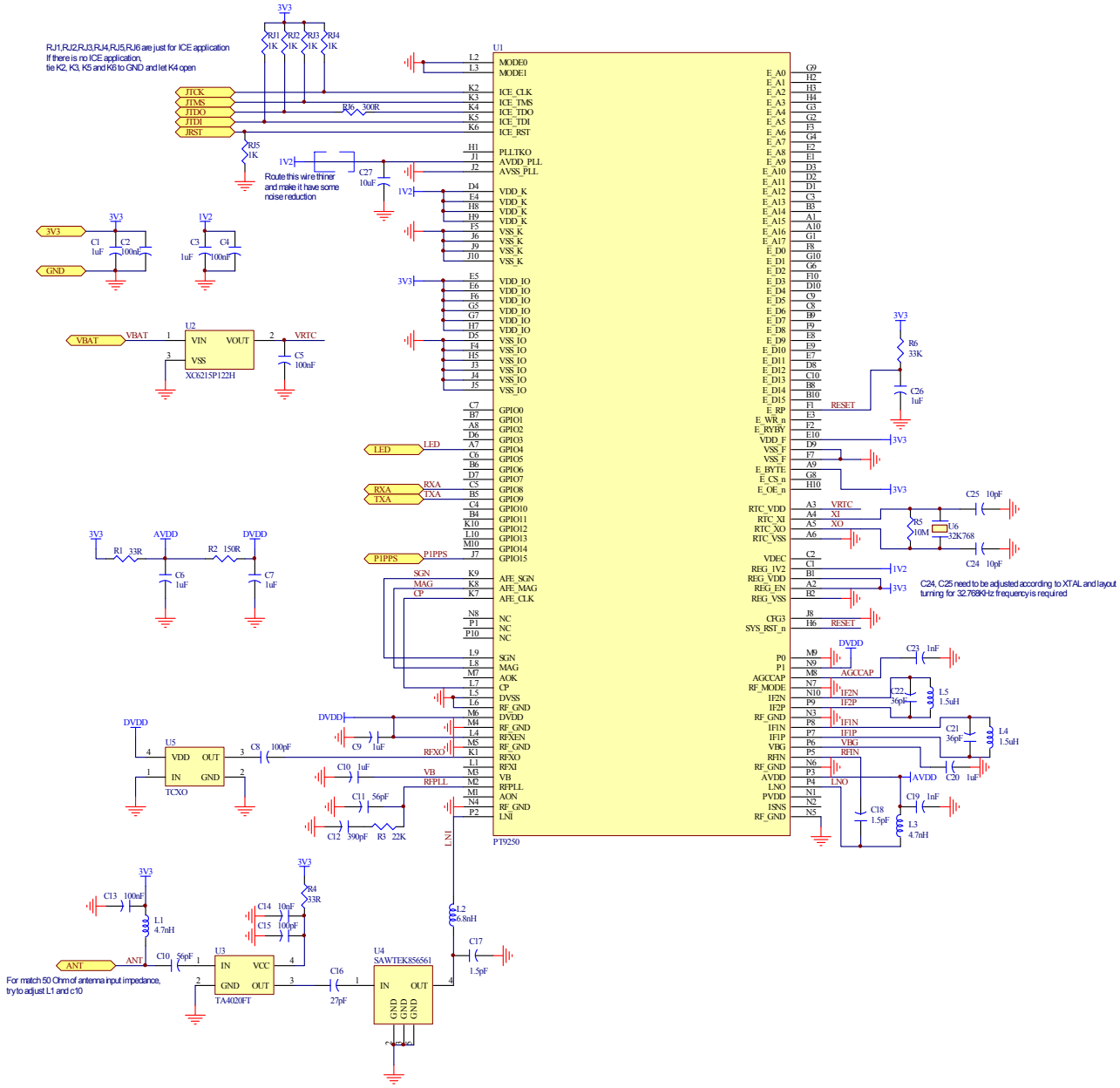
Notes :

1. Under open sky environment, -130 dBm signal level on PTC evaluation platform.
2. Under 24hr, 50% possibility and -130 dBm signal level.

BLOCK DIAGRAM



APPLICATION CIRCUITS

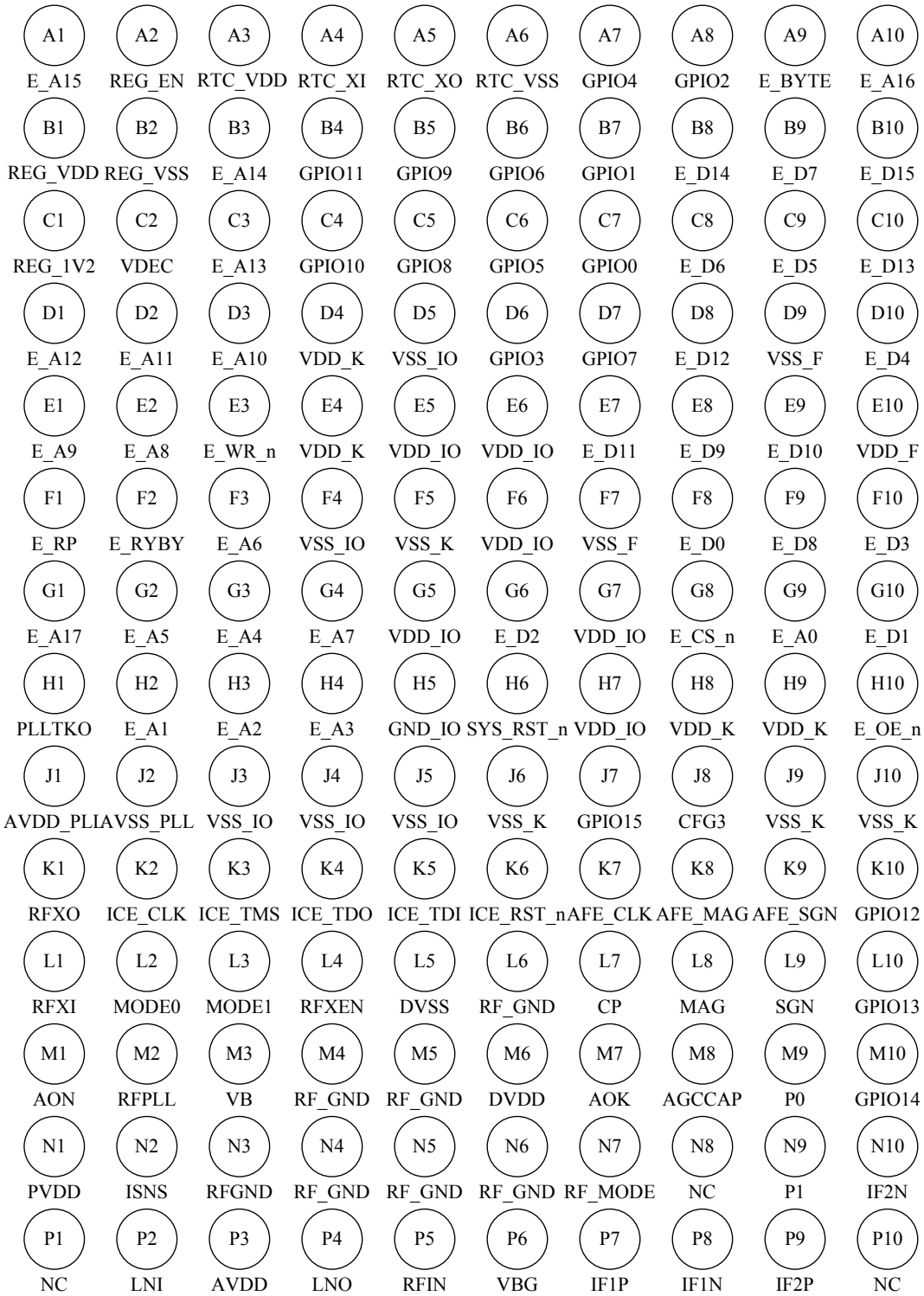


PT9250 Application Circuit

ORDER INFORMATION

Valid Part Number	Package Type	Top Code
PT9250	10mmx7mm LFBGA	PT9250

BALL CONFIGURATION



IMPORTANT NOTICE

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