MLG0208
Circuit Description

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General Description

The MLG0208 Module utilizes a Silicon Laboratories Si4210 Transceiver. This transceiver is highly integrated and provides virtually all modem functions. The module (optionally) also contains a Global Locate GL-LN22 Integrated Front-End and GL-B32-TL GPS Baseband Processor. The modem's baseband digital processor interfaces to the GPS baseband processor via a 4-wire μWire connection.

GSM/GPRS Section

Si4210 Transceiver

The Si4210 provide the complete RF front-end for the GSM/GPRS functions.

The receiver section interfaces between the RF band-select SAW filters and the baseband subsystem. The receiver uses a digital low-IF architecture.

The transmit section provides upconversion path from the baseband subsystem to the power amplifier using an offset phase-locked loop (OPLL).

The transceiver uses a digitally controlled crystal (26 MHz) oscillator (DCXO) that integrates the reference oscillator and varactor functionality.

D751992AZPHR Digital Baseband Processor

Provides digital interfaces and control of the system. It is operated from the main oscillator from the Si4210 and also has a real time clock crystal (32.768 kHz).

GPS Section

A two-chip GPS solution (front-end plus baseband processor) is operated from a 26 MHz TCXO allowing for autonomous operation when the GSM section is off. The front-end is fed from the antenna input through an LNA and band-pass filter. The front-end and the GPS processor interface digitally.