product BRIEF

Micro Linear

2.4GHz FHSS Radio Chipset

- 802.11 Compatible
- Very Small Form Factor
- 3 Wire Interface
- Auto Aligning Discriminator
- 10µs Tx-Rx Switching



ML2712
2.4GHz Radio Transceiver

ML2713
Radio IF Transceiver

ML2731
PA Bias Controller

Features

ML2712

- 1LO and 2LO VCO and PLL On-Chip
- 1LO and 2LO Tank Circuits Off-Chip
- Directly Modulated VCO Transmitter
- PLL Programming with 3 Wire IF
- Operation to 2.5GHz
- 48 Pin TQFP Package

ML2713

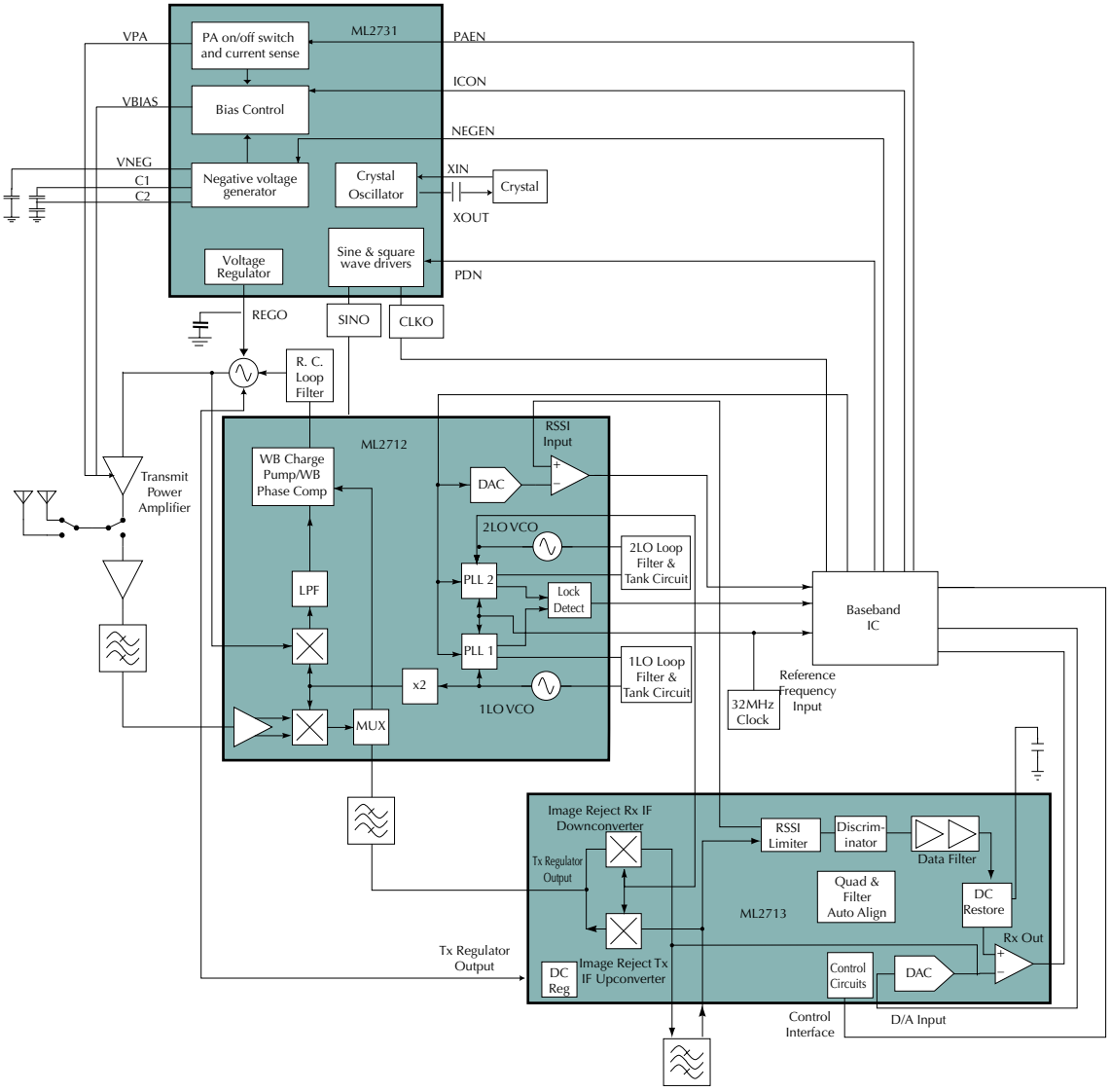
- Image Reject Up - Convert Mixer On-Chip
- Receive Down - Convert Mixer On-Chip
- Integrated Discriminator and Filter Alignment Circuits
- High Signal to Noise at Discriminator Output
- Received Signal Strength Indication Output
- On-Chip DAC Generates Modulated IF
- Low Noise Regulator Output
- 48 Pin TQFP Package

ML2731

- PA Current Control
- 10MHz - 40MHz Frequency Range
- Fast Start Negative Voltage Generator
- On-Chip Regulators
- 16 Pin TSSOP Package

The 2.4GHz radio chipset is targeted at the IEEE802.11 Frequency Hopping Spread Spectrum standard. Two devices; ML2712 2.4GHz RF Transceiver and the ML2713 IF Transceiver implement a very highly integrated, easy to use radio with a low cost bill of materials. The transmit path includes a DAC and IF up converter in the ML2713 followed by an integrated transmit PLL, 2.4GHz mixer and directly modulated VCO in the ML2712. The result is accurate digital generation of the modulated signal for 802.11 compatibility and maintenance of adequate transmitter range even without RF bandpass filters. The dual conversion receiver features high dynamic range and support for the 4G FSK/2Mbps requirement of 802.11 standard. The chipset also inplements a self aligning descriminator adjusted with every frequency hop.
An optional ML2731 PA Bias Controller completes the set.

Block Diagram



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