

OMNITUNE™ TUA 9001

RF Silicon Tuner for DVB-H/T and CMMB
(Direct Conversion Receiver)



OMNITUNE™ TUA 9001 is a highly integrated CMOS Direct Conversion Receiver (DCR), supports DVB-H/T and CMMB for mobile and portable multimedia solutions. OMNITUNE™ TUA 9001 covers VHF, UHF as well as L-bands for Europe and US frequency ranges. It can be operated with either a single or dual supply with a power consumption as low as 18mW at 10% duty cycle operation in DVB-H mode and 190mW in DVB-T mode.

With its 50Ohm RF inputs and external LNA support, the device is suited for applications that require a single VHF/UHF antenna input and excellent sensitivity.

OMNITUNE™ TUA 9001 supports a wide range of crystal and external reference frequencies. It features an integrated wide-band RF AGC, a programmable channel filter, as well as a fully integrated VCO and PLL loop filter.

Applications

- Mobile devices such as mobile phones, PDA, game stations and personal media players
- Portable applications such as laptops, USB sticks, PC cards and automotive infotainment
- TV receivers with DVB-H/T and CMMB functionality (portable and handheld)

Features

- Direct Conversion Receiver
- Supports MBRAI Class b2 and c
- 0.13um RF CMOS
- Quad band support : 170 MHz-240MHz VHF, 470MHz-890MHz UHF, 1.45GHz-1.49GHz L-Band and 1.672GHz L-Band)
- Integrated wide-band RF AGC

Note: The OMNITUNE trade mark is owned by Infineon Technologies AG.

- Single supply or dual supply voltage for lowest power consumption
- Less than 18mW (10% D/C)
- Less than 190mW in DVB-T mode
- Low power modes and power scalability
- Fractional-N synthesizer with fully integrated VCO and loop filter
- External reference frequency input available
- Supports crystal and reference frequencies from 16 to 38.4MHz
- Fast on/off cycling: From idle to receive in <1ms
- Integrated, programmable 7th order Chebyshev channel filter for 5, 6, 7 and 8MHz channel bandwidth
- Fully differential analog I/Q interface
- Support single antenna input for VHF and UHF Band

Benefits

- Optimized low power solution
- Minimum PCB area and component count
- No SAW filter required
- Supports time slicing
- External LNA supported, e. g. BFR 380, for optimum performance please contact Infineon

Product Available in

- PG-WFSGA-65 (5x5x0.8mm)

www.infineon.com/tuner

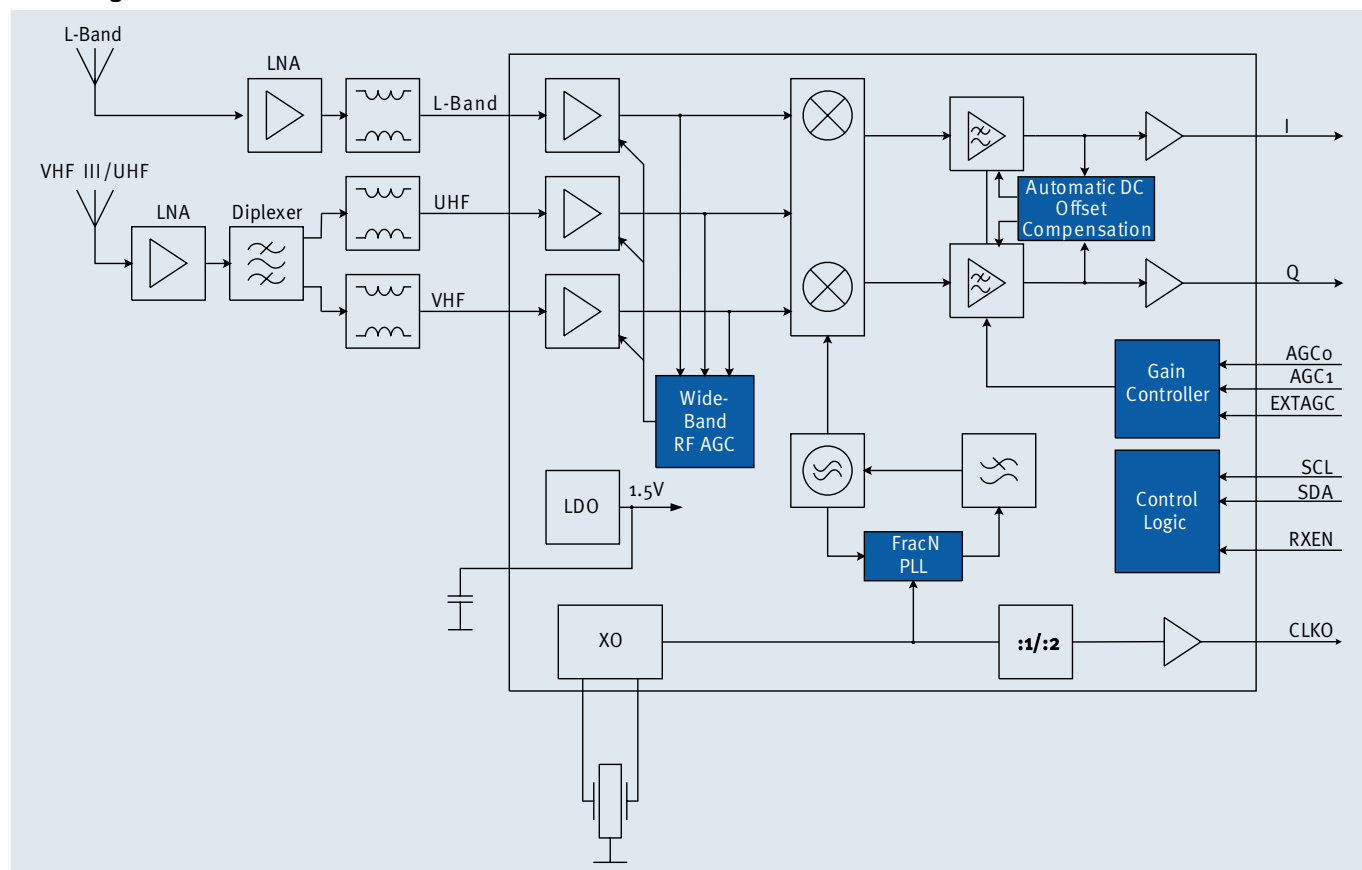
Communication Solutions



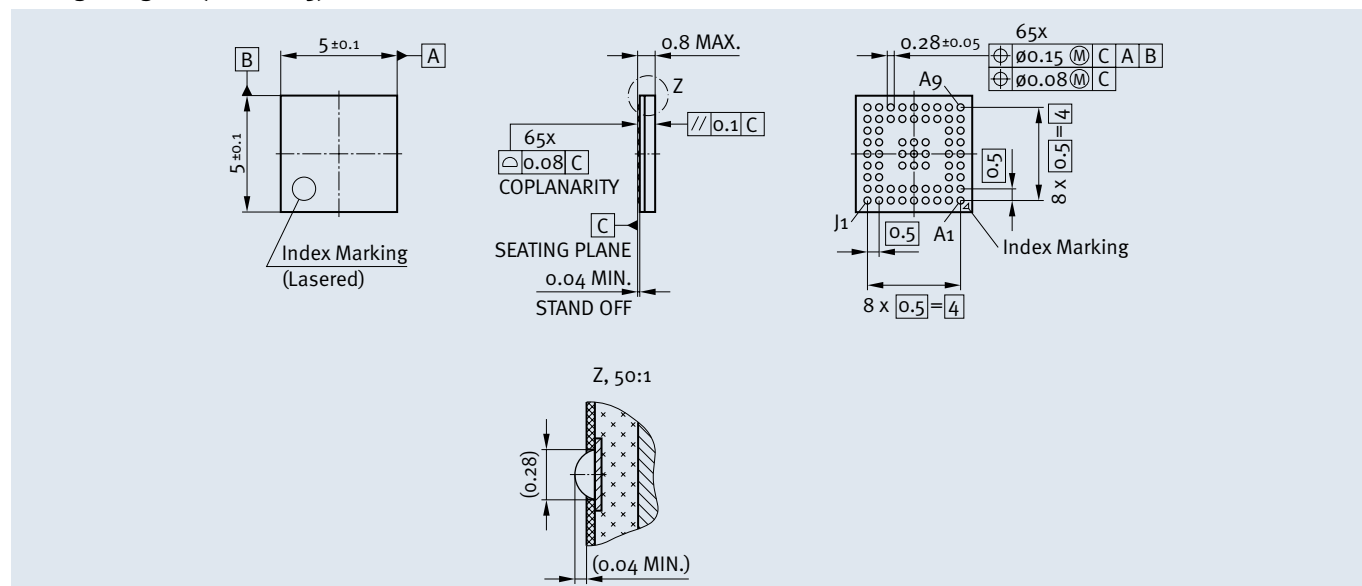
Never stop thinking

Product Brief

Block Diagram



Package Diagram (WFSGA-65)



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Information

For further information on technology, delivery terms and conditions and prices please contact your nearest Infineon Technologies Office (www.infineon.com).

Warnings

Due to technical requirements components may contain dangerous substances. For information on the types in question please contact your nearest Infineon Technologies Office.

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