

GDM7205 Product Brief

Mobile WiMAX IEEE 802.16e Wave-2 Compliant monolithic single-chip

Key Benefits

- Reduces PCB design complexity
- Ultra low power consumption
- Small form factor
- Optimizes mobile WiMAX implementation in mobile devices
- Minimizes external RF front-end components
- Satisfies high demands of multimedia processing

Applications

- Mobile Handsets
- Hotspots
- USB Dongles
- M2M
- Modules
- CPE types
- Netbooks/ PC/Tablets
- Various Datacards

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Features

- Integrates up to 160MHz ARM926E RISC CPU and 120MHz P2D DSP with 128 KB on-chip DRAM
- 1.1V supply voltage
- 2.3-2.69GHz WiMAX band with auto-calibration and dynamically adjustable channel bandwidth
- Complies with IEEE 802.16e
- Maximum throughput: >40 Mbps/ DL, 6 Mbps/UL
- Supports CC/CTC and Chase Combining-CTC
- Hybrid ARQ supporting up to category 6
- Supports seamless handover across the cells or sectors
- Supports AAS/BF features for MS



GDM7205

GDM7205 is the world's first mobile WiMAX IEEE 802.16e Wave 2-compliant monolithic single-chip. This highly integrated single-chip solution is designed to optimally support mobile WiMAX applications, including portable, nomadic and fixed. GDM7205 includes a mobile WiMAX baseband, RF transceiver, high performance dual-processors, and an impressive array of peripherals for connectivity and multimedia.

With its highly integrated, low-power on-chip radio transceiver and a small number of external RF front-end components, GDM7205 supports all essential features of mobile WiMAX (802.16e), implementing MIMO plus all PHY and MAC features required for WiMAX Forum Wave2 certification.

With a true single RF/BB monolithic implementation, GDM7205 offers ultra lower power consumption and small form factor to fit into the smallest mobile devices such as mobile handsets, smart phones, as well as portable/fixed devices such as USB dongles, residential gateways, etc.

GDM7205 implements a unique, patent-pending, reduced complexity, MIMO decoder based on ML algorithm that delivers the highest theoretical performance possible. Interface options include USB2.0 ULPI/UTMI, SDIO and 10/100 Ethernet MII as well as 16-bit memory interface.