THE WORLD'S CELLUAR IoT LEADER

ALT1210 Chipset - Product Brief

Altair's ALT1210 is an LTE CAT-M1 IoT chipset featuring downlink speeds of up to 1 Mbps, with extremely low power consumption. It is software upgradeable to LTE CAT-1.

The ALT1210 chipset includes the ALT1210 baseband chip and its companion RF-CMOS transceiver IC, the ALT6401.

The ALT1210 is highly integrated and includes an advanced PMU (Power Management Unit), integrated DDR memory, low power CPU subsystem with a robust security framework for customer developed applications, and additional elements. The ALT6401 includes a VCO, a PLL, a Loop Filter, a PA driver, LNAs and a PMU. The ALT6401's high integration enables the development of low cost devices with minimal external component count.

Altair's OneSKU™ technology enables supporting multiple LTE bands with a single device SKU (Stock Keeping Unit). This enables switching cellular operators throughout the IoT device lifecycle and simplifying global IoT logistics and deployments.

The ALT1210 is based on Altair's SDR (Software Defined Radio) architecture which offers OFDMA-related software based signal processing capabilities that significantly exceed traditional communications DSP cores at a fraction of the power. Featuring a rich set of host, peripheral and sensor interfaces, the ALT1210 is ideal for integration in IoT devices including wearables, trackers, streaming audio, digital signs, utilities and more.

The ALT1210 comes with a wide manufacturing and test solutions ecosystem.

Highlight Features

- Release 13 CAT-M1 (FDD 1 Mbps, HFDD 300/375 Kbps)

- Software upgradable to LTE CAT-1 with single antenna operation

- Release 13 features including eDRX, PSM and Enhanced Coverage

- Highly optimized IoT power consumption: Idle DRX <0.9 mA, 81.92 sec eDRX 55 uA, PSM floor <5 uA

- Integrated VoLTE, IMS, and LWM2M services

- Secure boot architecture and a robust security framework

- LTE−FDD, TDD and HFDD (Half Duplex FDD)

- 450 MHz, 699−960 MHz and 1500−2700 MHz

- Interfaces include: USB2.0, UART, SPI, I2S/PCM, Auxiliary PWM and ADC, Camera, USIM

- BGA packaging

Ordering Information

Part Number	Description
ALT1210-C0	ALT1210 9x9mm BGA, 0.5mm pitch
ALT6401-C1	ALT6401 6x6mm BGA, 0.4mm pitch