APPLICATIONS

- **DAB/DAB+, FM-RDS**
- **Portable radios**
- **Clock radios**
- **Docks**
- **Automotive digital radio adaptors**
- **Handheld radios**
- **Home audio systems**

OVERVIEW

Kino 4 is the latest generation of low-power integrated digital radio system-on-chip (SoC). It is a fully integrated single chip radio receiver SoC containing RF tuner, baseband, application processor, audio decode and DAC functionality.

Kino 4 has been designed to power all major categories of consumer digital radio device from simple portable digital radios to home audio systems in either a master or slave configuration.

Capable of supporting a full colour display and Slideshow technology. Slideshow allows colourful displays to run alongside the station's audio to provide extra information, such as, track details, web information, weather maps or traffic updates.

Containing a number of innovative technologies to optimise power consumption, Kino 4 uses up to 50% less power than the previous generation Kino 3 chip. The high level of integration, such as built-in voltage regulators, helps to reduce the system component count and keep BoM costs to a minimum, as well as reducing manufacturing time.

Kino 4 is Digital Tick compliant. The on-chip multi-band RF tuner and processor operate in the following RF bands; Band II, and Band III.

SUMMARY OF BENEFITS

- Enhanced performance and functionality
- Up to 50% lower power consumption than the previous generation Kino 3
- Reduced cost
- Designed to power all major categories of digital radio device
- Supports all digital and FM radio frequencies

FEATURES

- CPU 360MHz META MTP
- RF Sensitivity: DAB -100dBm, FM -110dBm
- On board RF tuner supporting, Band III, Band II.
- Internal Stereo DAC with 90dB dynamic range
- Boot from internal memory, SPI flash memory or host device. Software configurable
- Colour display with Slideshow technology
- Flash memory interface
- Temperature range
    - Operating -40 to +85 °C
    - Storage   -40 to +125 °C
- Full RoHS compliance
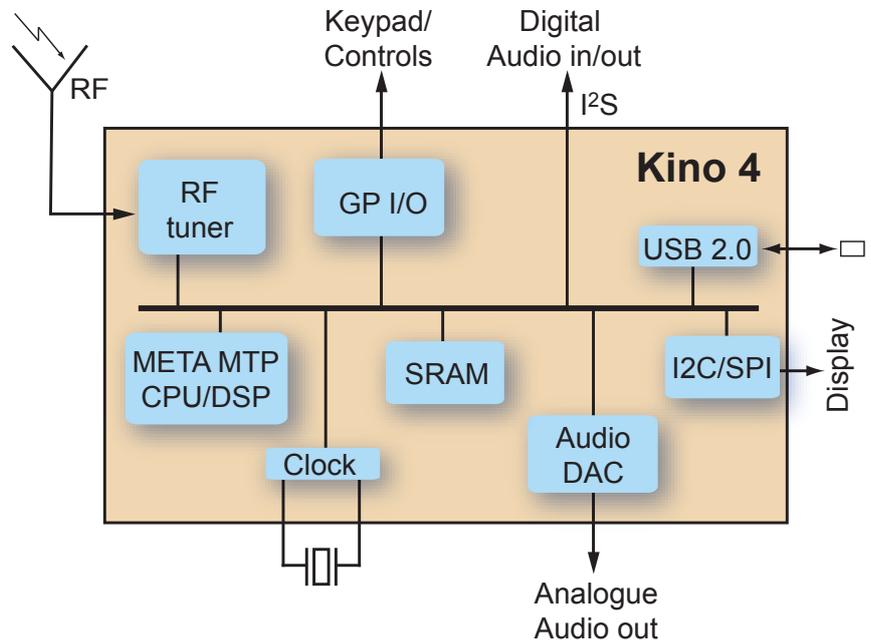

88-pad QFN package 10 x 10 mm, 0.4 mm pitch.

Actual size

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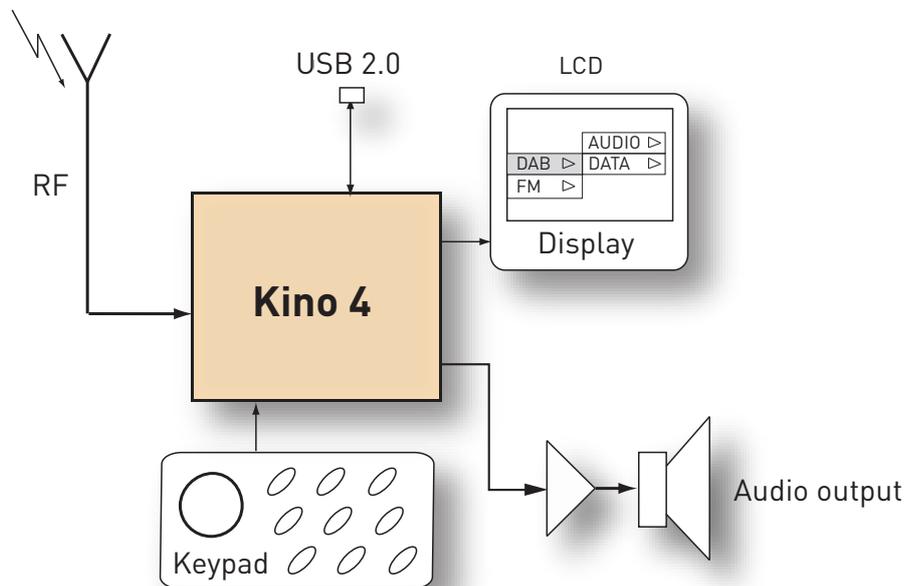
KINO 4 FS1445

Highly-integrated DAB/DAB+ digital radio processor

EXTENSIVE INTERFACES

- Multiple configurable GPIO and ADC inputs
- USB 2.0 High-speed in host or device mode
- S/PDIF audio output
- I2S input/output of decoded audio data (both master and slave modes)
- Support for multiple SPI slave devices
- 2 x 16 550-compliant UARTs with optional flow control
- Colour LCD/OLED supported via SPI/I2C or LED indicators for headless display.
- GPIO and ADC interfaces
- JTAG interface for test and emulator support

KINO 4 BLOCK DIAGRAM

SIMPLE DAB RADIO APPLICATION