

VERONA HD RADIO  
MODULE -  
48 X 28 MM

### APPLICATIONS

- Entry level digital radio
- Portable (kitchen) radio
- Clock radio

### OVERVIEW

The FS2250 Verona HD Radio™ module is the only fully certified master-mode HD Radio module solution endorsed by iBiquity. Designed to enable high-performance FM HD Radio receivers at low-cost, targeting consumer portable, clock radios and music systems. Acting as the host processor, the Verona HD Radio module removes the need for an additional applications processor as well as associated system development. This new module is electrically and mechanically compatible with our existing Verona DAB module to allow easy product migration from existing product designs.

Backed by Frontier Silicon's comprehensive support, the module provides all interfaces necessary for a fully functional HD Radio product, including the capability for firmware updates. The Verona HD Radio module needs only power supply, display, keypad, audio amplifier and speakers to complete a product.

### BENEFITS

- Provides a cost effective low-risk solution for HD Radio receivers
- Master mode - presenting a functionally complete HD Radio solution
- Pin compatible with existing Verona DAB module for easy product migration.

### KEY FEATURES

- Supports HD radio FM hybrid digital mode with multicasting HD2/HD3
- World FM band range from 76MHz to 108MHz, with international frequency tuning steps.
- Temperature range:
  - operation: -10 to +70°C
  - storage: -40 to +85°C
- Supports RDS and RBDS decoding
- IR remote control
- Built-in stereo DAC
- RoHS compliant
- Customisable application software
  - User interface allowing up to 15 buttons and two rotary encoders.
  - Battery monitoring and charging control
  - Display backlight control
  - Clock with dual alarms
  - Multi-language support - English, Spanish, Portuguese, French



HD RADIO MODULE MOUNTED ON THE  
VENUS REFERENCE PLATFORM

# VERONA HD RADIO™ MODULE FS2250

FM HD Radio receiver module

## DESCRIPTION

Verona HD Radio module provides a complete low-cost, low-power digital broadcast and FM tuner in a compact module.

The main components of the Verona HD Radio module are shown in the diagram opposite (These are the HD Radio IC, MCU control processor, flash and EEPROM), below that is a diagram showing a typical application for the HD Radio module.

## Software

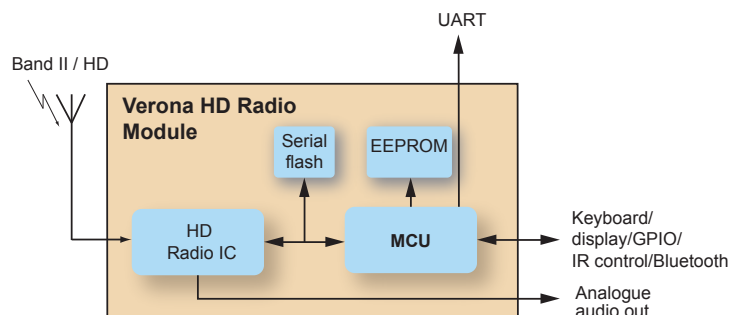
The Software can be configured to customer requirements and pre-installed in the module's flash memory.

The application software is customisable including the following options:

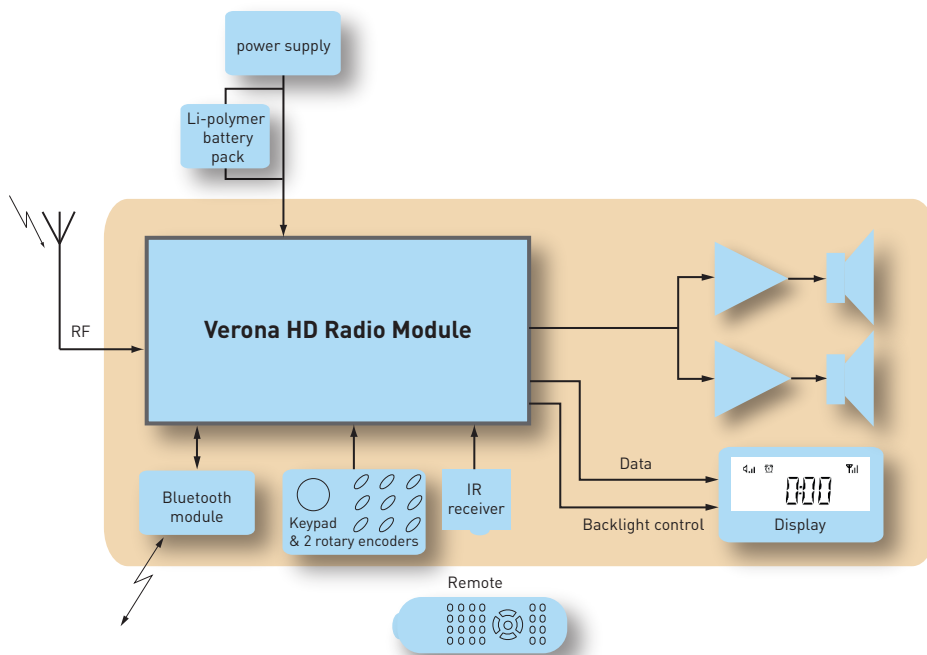
- Clock with multiple alarms/timers
- Presets
- Battery detect
- Support for up to 15 buttons and 2 rotary encoders
- 2 x 16 character display with icons

## DEVELOPMENT PLATFORM

For evaluation and development, the Frontier Silicon Venus, HD Radio reference platform provides a basis from which customers can quickly develop their own end-products.



VERONA HD RADIO MODULE BLOCK DIAGRAM



HD RADIO MODULE IN A TYPICAL EXAMPLE APPLICATION



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