



VENUS 2i-L EVALUATION PLATFORM

APPLICATIONS

- iOS docking radio with USB/ Lightning connectivity and DAB/FM

OVERVIEW

Venus 2i-L is a digital iOS docking radio evaluation design for price sensitive, entry level radio applications (DAB/DAB+ and FM-RDS) with USB connectivity for Apple® iOS Devices. Based on the Verona module running DAB 5.1 embedded software, Venus 2i-L provides a flexible architecture, enabling OEMs to use the design as a starting point to speed up development of custom products. The design offers a simplified route to produce iOS device Lightning docking systems replacing the USB connection with a physical Lightning connector.

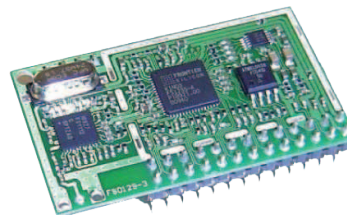
Customer deliverables

Venus 2i-L is provided with an engineering design pack including specifications, schematics, gerbers, bill-of-materials and software. Support is available to customise the platform for individual requirements.

PCB ARRANGEMENT

The fully-flexible evaluation design comprises Verona module with three main PCBs and one connector PCB.

- Verona module, 48 x 28 mm
- Mainboard PCB: power and audio, 135 x 103 mm
- Keyboard and LCD PCB with 13 keys, 1 rotary encoder and display daughterboard, 120 x 50 mm
- Connector PCB, 38 x 96 mm
- iPod dock connector PCB, 41 x 66 mm



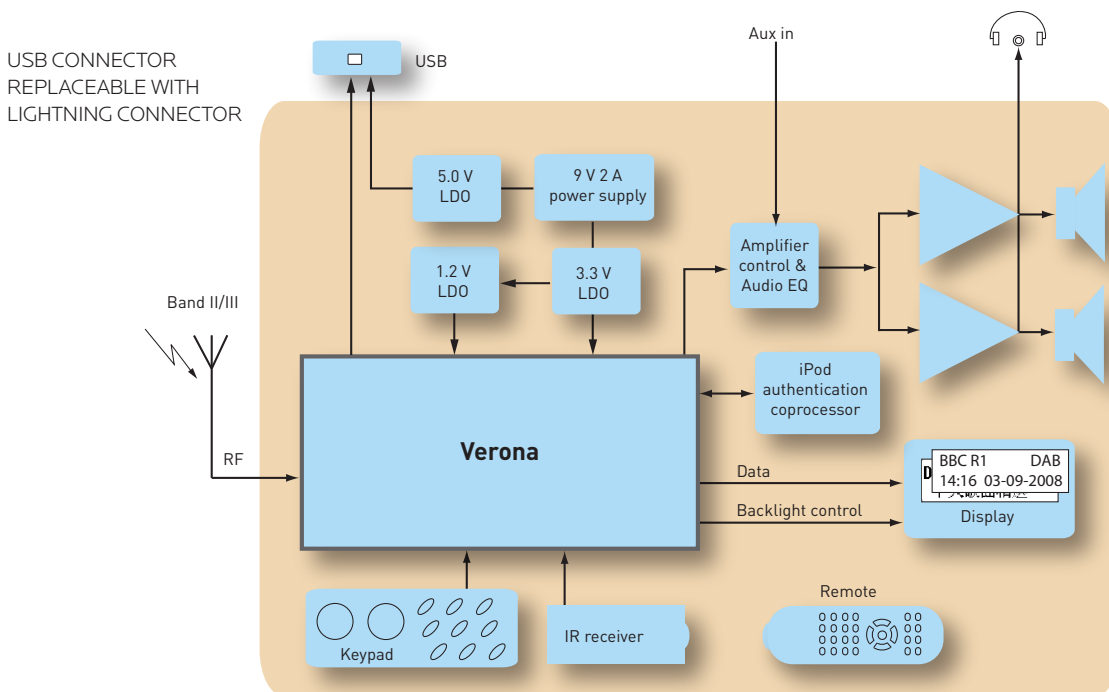
VERONA MODULE

FEATURES

- USB type-A connector or Apple® Lightning® connector
- Authentication coprocessor for Made for iPhone applications
- DAB/DAB+
- FM with RDS
- Clock (with auto update)
- Multiple alarms with snooze / sleep
- Customisable number of presets
- Headphones output
- Stereo audio output
 - 2 x 2W amplifier (into 4 Ω)
 - Digital volume control with optional mute function
 - Audio EQ preset and user-defined
- 128 x 32 pixel display, plus icons
- Display backlight control
- Infrared port
- Power supply
 - AC/DC adaptor jack; DC 9 V
- Customisable user interface keypad with 14 tact switches

VENUS 2i-L FS4053-L

Platform for Digital iOS Docking, with DAB/DAB+/DMB-R/FM



VENUS 2i-L BLOCK DIAGRAM

DESCRIPTION

The main components of the Venus 2i-L platform are shown in the diagram above. The system consists of an RF front-end, Verona module, USB connectivity, keypad, display, amplifier control and power supply.

SOFTWARE AND USER

INTERFACE

Frontier Silicon has made considerable investment in creating versatile, intuitive and flexible software. Venus 2i-L uses DAB 5.1 software which is customisable to OEMs' individual requirements. Venus 2i-L supports a 128 x 32 pixel display, plus icons.

SPECIFICATION

DAB/DAB+/DMB-Radio	Sensitivity	-97 dBm (typical)
	Tuning range	174 - 240 MHz
FM	Sensitivity (@40 dB SNR)	-106 dBm (typical)
	Tuning range	87.5 to 108 MHz
THD	Mono	< 2%
Channel separation (FM)		> 35 dB
Audio power output (RMS)		2 x 2W

STANDARDS AND CERTIFICATION

Verona and Venus 2i-L have been designed to be interoperable throughout Europe and beyond, and also operate seamlessly with the rest of the digital audio world. As well as working with the standards shown, suitable end-products based on this platform should be able to obtain certification for various other industry standards; for more information, contact Frontier Silicon.

