



VENUS COLOUR REFERENCE PLATFORM

OVERVIEW

Venus Colour is designed to be a Digital Tick compliant evaluation supporting DAB slideshow for colour display radio applications (DAB/DAB+ and FM-RDS). Based on the Verona 2 module running DAB 6.1 embedded software, Venus Colour provides a flexible architecture, enabling OEMs to use the design as a starting point to speed development of custom products.

Venus Colour provides a simple route to enable OEMs to produce colour display radio systems offering DAB radio, FM radio and Bluetooth® streaming. The Venus Colour platform provides an advanced, flexible and integrated audio system offering the ability to display programme-relevant text and full colour images.

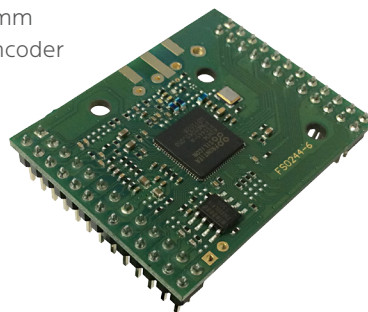
CUSTOMER DELIVERABLES

Venus Colour 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 the Verona 2 module and *four* main PCBs.

- Verona 2 module, 43.4mm x 34 mm
- Adaptor board, 80mm x 48mm
- Mainboard PCB: power and audio, 117mm x 63mm
- Keyboard and LCD PCB with 13 keys, 2 rotary encoder and display daughterboard, 117mm x 19mm
- Audio PCB, 117mm x 60mm



VERONA 2 MODULE

APPLICATIONS

- Colour display digital radio
- Portable (kitchen) radio
- Clock radio

FEATURES

Audio Modes	DAB/DAB+ (Digital Tick compliant) FM with RDS
Power supply	9 V 2.5A DC from adaptor Current: TBD mA, Built-in 1600mAh Li-polymer battery
Antennas	Single external antenna for DAB/FM
User interface	13 push-button switches, 2 rotary encoders with push button, infrared remote
Displays	320 x 240 full colour display, supporting DAB slideshow
Audio output	2 x 2 W amplifier, external EQ with presets, volume control with mute. Headphone jack (analogue audio only)
Bluetooth	Bluetooth 4.0 A2DP
Clock/ Alarm	Clock (with auto update) Multiple alarms with snooze / sleep

VENUS COLOUR FS4446

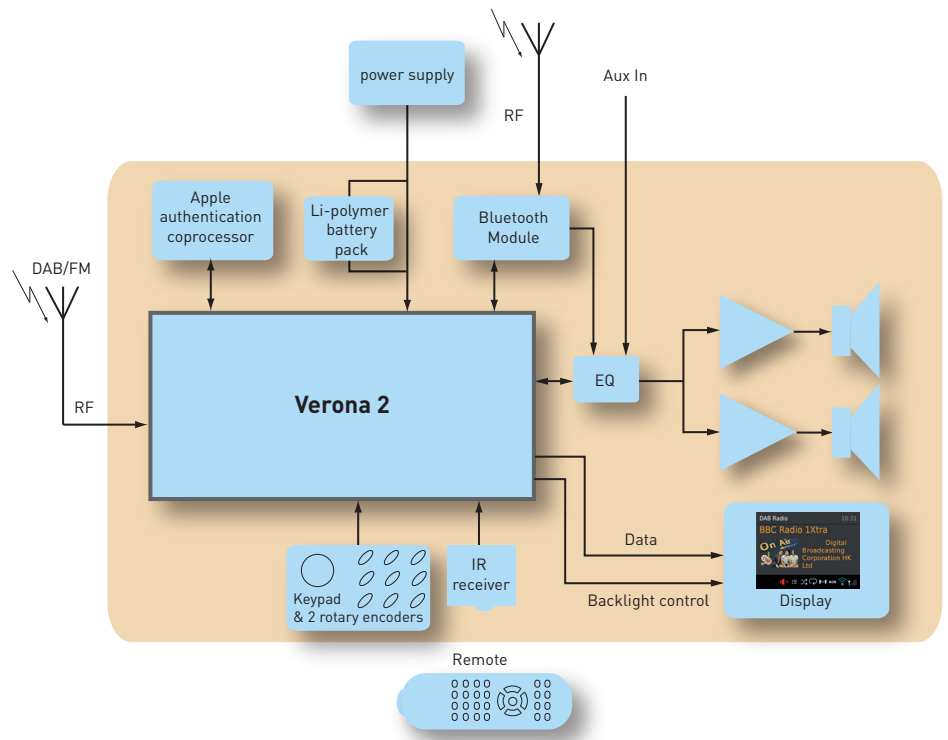
Platform for colour display DAB/DAB+/FM Digital Tick compliant digital dock radio

DESCRIPTION

The main components of the Venus Colour are shown in the diagram opposite. These are the Verona 2 module, keypad, display, amplifier control and power supply.

SOFTWARE AND USER INTERFACE

Frontier Silicon has made considerable investment in creating the most versatile, intuitive and flexible software available. Venus Colour uses the DAB 6.1 software which is customisable to OEM's individual requirements. Venus Colour supports a QVGA 320 x 240 pixel display.



VENUS COLOUR BLOCK DIAGRAM

STANDARDS AND CERTIFICATION

Verona 2 and Venus Colour have been designed to meet digital tick compliance for basic digital radio throughout Europe, and also operate seamlessly with the rest of the digital audio world. Suitable end-products based on this platform should be able to obtain certification for various industry standards; for more information, contact Frontier Silicon.

SPECIFICATION

DAB/DAB+	Sensitivity	-98 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 2 W

