APPLICATIONS

- **Internet radios**
- **Smart radios**
- **Smart speakers**
- **Music Systems**

Powered by
UNDOK

VENICE X MODULE - 60.5 X 43.5MM

OVERVIEW

The Venice X FS2340 module is a complete hardware and software solution for Smart radio and Smart speaker applications, for example, Internet radio, Spotify Connect, Bluetooth, DAB/DAB+ and FM-RDS products. It provides the simplest and lowest-cost solution for high-quality audio streaming from live Internet radio stations.

Venice X is part of the UNDOK system including IR 4.X software, UNDOK app and the Venice X reference platform.
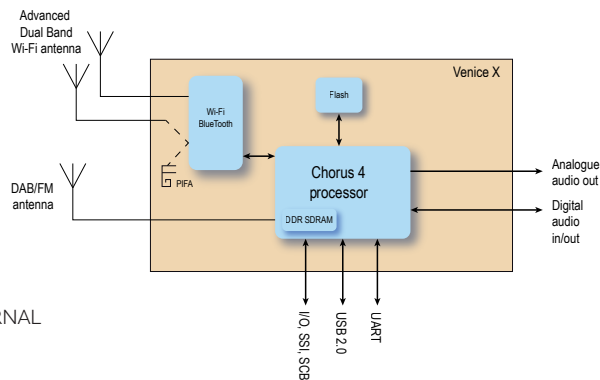
Based around Frontier Smart Technologies' powerful Chorus 4 processor, Venice X streams radio and music files in a variety of formats including AAC, AAC+, MP3, WAV, and FLAC. The module also supports a full colour display.

Frontier Smart Technologies provides modules pre-installed with software which can be configured to customer requirements.

Frontier Smart Technologies provides the Venice X evaluation and reference platform, which can be used to enable rapid development of Venice X-based systems.

MODES

- Internet radio streaming
- Podcast and listen-again contents
- DAB/DAB+ digital radio
- FM radio reception with RDS
- Bluetooth technology streaming
- Music Services (eg: Spotify Connect, Amazon Music, etc.)
- CD Control
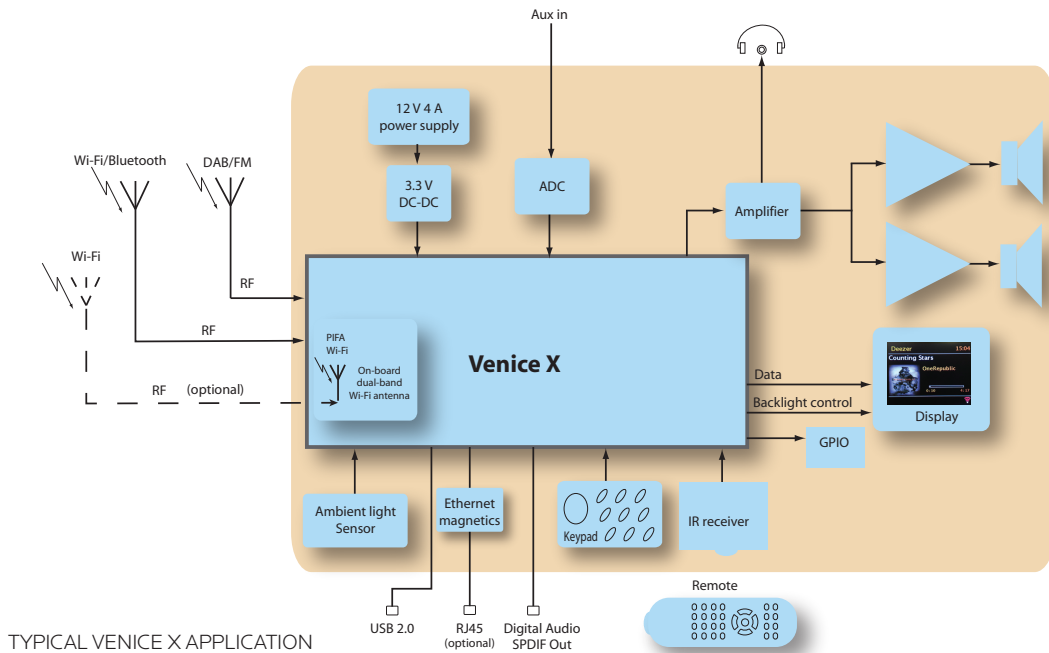- Auxiliary input

CONNECTIVITY

- 802.11a/b/g/n – WEP, WPA, WPA2 security
- Bluetooth 4.2 technology
- USB 2.0 High Speed device/host
- Off module Ethernet supported
- On-module audio DAC
- Digital audio output - I^2S or S/PDIF
- SPI LCD interface
- Infrared remote control
- Keyboard presets, rotary encoder
- SCB I/F (I^2C compatible)

FEATURES

- Full master operation
- Wide antenna configuration options: 1x1 Wi-Fi diversity support using onboard PIFA antenna and external antenna or two external antennas, supporting 2.4 GHz and 5 GHz bands
- DAB (MPEG1) and DAB+ (AAC) decoding
- Automatically software upgradable in the field through Internet or USB
- Audio post-processor on-module EQ
- Single 3.3V power supply required
- Wi-Fi Protected Setup (WPS) for easy pairing with a home router
- RoHS compliant
- Temperature range:
    operation 0 to +70°C
    storage -40 to +85°C

VENICE X MODULE: INTERNAL BLOCK DIAGRAM

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Venice X FS2340 Product Brief FSM-0027-0363 Rev 2

VENICE X FS2340

Internet radio/DAB+/FM /Bluetooth audio module

TYPICAL VENICE X APPLICATION

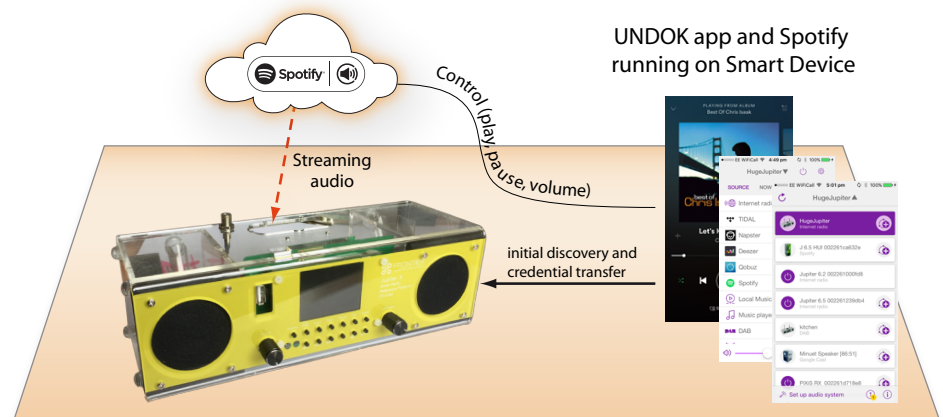## MECHANICAL CONNECTOR COMPATIBILITY

The Venice X module uses the same core connections as Frontier's Verona 2 module which will allow the design of single products capable of multiple SKUs supporting either module.

CHORUS 4 BASEBAND PROCESSOR

The **Chorus 4** FS1440 baseband processor is the latest generation of integrated system-on-chip, providing an optimised solution for wireless connectivity, Internet radio, DAB, DAB+ and FM-RDS broadcast receiver products. It incorporates a number of mixed-signal system components as well as an applications processor and advanced peripherals, providing significant space, cost and power savings.

STANDARDS AND CERTIFICATION

Venice X, and IR 4.x have been designed to operate seamlessly with the rest of the network audio world. The Venice X reference platform is tested to comply with EN55020, EN55013, CE (ETSI) and FCC (part-15) to assist suitable end-products based on this platform to obtain certification for industry standards; such as CE approval and FCC certification. For more information, contact Frontier Smart Technologies.

USE CASE : SPOTIFY CONNECT, WITH UNDOK