

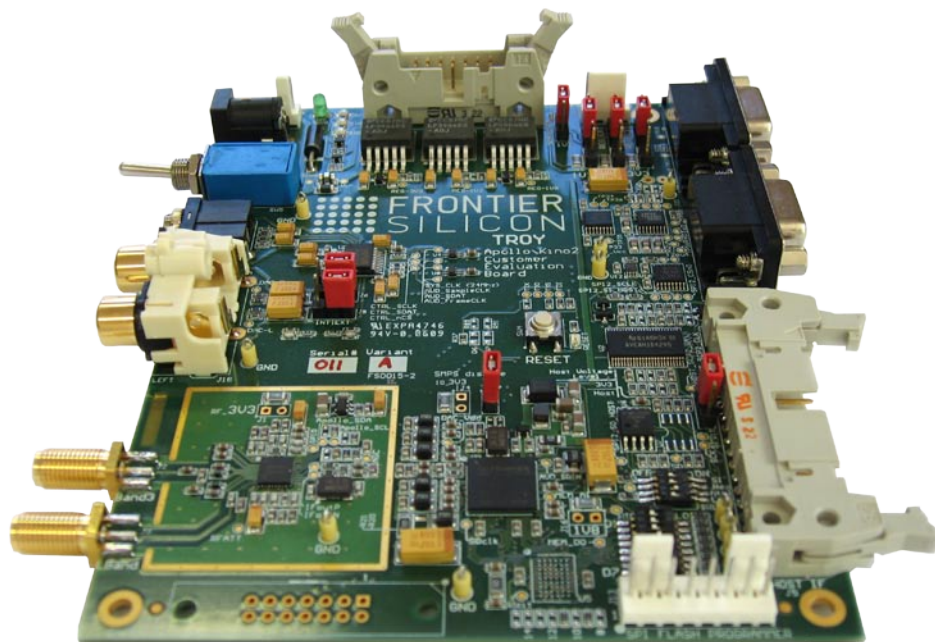
Troy FS1026-EV

Evaluation Kit for Kino 2



APPLICATIONS

- Evaluation of Apollo/Kino 2 chipset for T-DMB mobile TV and DAB radio applications
- Software development
- Hardware development
- Parameter measurement



OVERVIEW

Troy is a T-DMB/DAB evaluation platform designed to demonstrate the capabilities of the Frontier Silicon Apollo FS1110/Kino 2 FS1026 chipset for mobile TV applications.

Troy takes a T-DMB RF signal input to the Apollo tuner, and delivers an MPEG-2 transport stream from the Kino 2 baseband to an external host processor. The kit includes the Trinity SPI-USB bridge for connection to a PC Host, and a generic multi-interface header for media processor development kits. This enables quick prototyping of end-to-end T-DMB development products.

Troy comes with powerful Troy GUI and codec software for the PC. This enables real-time decoding of A/V MPEG-2 transport streams. Troy can also deliver a DAB MUSICAM stream to be decoded natively or in the host.

The Troy GUI software allows various configuration adjustments of the T-DMB receiver, and gives dynamic parameter/performance measurements of the receiver such as SNR, bit error rate pre- and post-terbi, in real-time.

1. Maximum number of streams dependant on system configuration

The embedded media player is capable of playing up to four video streams simultaneously¹.

The Apollo/Kino 2 chipset comprises a flexible high-performance, low-cost T-DMB/DAB receiver. Its low-power, small-footprint and minimal external component count make it ideal for small battery-powered devices such as mobile phones, PMPs and digital cameras. The Apollo RF chip is a well-proven device currently shipping in mass production T-DMB handsets; Kino 2 is derived from the Kino 1 baseband processor at the heart of most DAB radios and T-DMB handsets in use today. The devices' flexible interfaces also make them suitable for independent use with other manufacturers' RF and baseband ICs.

Troy is designed as a general-purpose evaluation platform with a complete set of chip interfaces brought out to standard-size connectors; its size is not representative of production Apollo/Kino 2 systems, which can be constructed as small as 27 x 16 x 2.6 mm.

KEY FEATURES

- Based on Frontier Silicon's class-leading mobile TV chipset - the Apollo FS1110 tuner IC and Kino 2 FS1026 baseband IC
- Dual-band dual-mode: Band 3, L-Band, multistandard T-DMB and DAB
- Complete evaluation package, including:
 - Troy board with Apollo/Kino 2 chipset and support circuitry
 - Trinity FS1026-SU SPI-USB bridge to the PC
 - Worldwide power adaptor
 - All connection cables
 - Documentation including datasheets and user guide on CD
 - Application software on CD
- Software upgradable
- Streams an entire T-DMB ensemble of up to 8 A/V, data and DAB services (number dependant on system configuration)
- All chip interfaces brought out to standard connectors
- Complete software package - T-DMB decoder object code and reference PC utility source code
- Fully configurable
- Supported by Frontier Silicon's global team of field application engineers



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The screenshot displays the 'Frontier Silicon Ltd. Troy Control Panel' software. At the top, three video windows are open, each showing a different scene from a movie. Below these is the main control panel with various sections:

- Power:** Standby, Re-sync (Now), Select region (UK - Local), Versions (Display, Get), TII.
- Scan region:** Scan button, a progress bar, and a 'Single frequency' section with a 'Select...' button.
- Services:** A table with columns for Name, P/S, Freq, Ensemble, and Contents. Below the table are buttons for Select, Save table..., Load table..., and Clear table.
- Log:** Open log file..., Start button, and Log options (Errors, Warnings, Information, Time/date, DLS, HLCP, Multiplex, Trigger).
- Status:** A grid showing 'Unknown' for various parameters.
- Current status:** CMD_DMB (Response: Success, No audio), CMD_DMB_SELECT (HLCP state: Idle, Not muted).
- Signal information:** Post VBER: 0, Signal to noise ratio: 0, Pre-viterbi: 0, RSSI: 0, Add: 0, Mul: 0, Div: 0.
- AV Control:** Play/Pause, Stop, and Exit buttons.
- RSSI:** Set... button.
- Triggers:** Set... button.
- SPIM:** Set... button.
- Status:** Single button.
- Musicam control:** A volume slider.
- DLS information:** Start button.
- Received time:** Start button.

At the bottom right of the panel, it says 'Troy Control Panel (c) 2005 - 2006 Frontier Silicon Ltd.'

The Troy Control Panel, demonstrating simultaneous decoding of three T-DMB A/V streams

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