

Introduction

Using BridgeCo's Wi-Fi iPod Dock and Audio Digital Media Player (aDMP) platform, consumers are able to break away from their home offices and enjoy digital music anywhere in the home.

The Wi-Fi iPod Dock Audio DMP and Internet Radio platform enables the delivery of digital content available from a docked iPod or USB 2.0 storage, broadband Internet connection or the PC to consumer entertainment equipment. The platform can also support network connectivity through wire Ethernet or HomePlug, and is certified to comply with many industry standards (UPnP, DLNA, Play4Sure, etc.). End-users control the device and select their music using a simple remote control with the UI on the TV screen for easy reading from a distance.

With the Wi-Fi Audio DMP software, the DM850 is truly used as a 3-in-1 chip, providing network, microcontroller and DSP capabilities in a single chip. The platform is

optimized for digital rights management, offering a secure platform that supports current and future authentication and encryption schemes.

The Wi-Fi Audio DMP with iPod Dock, TV UI, and Internet Radio is offered as a hardware reference design, and production-ready firmware with customization tools. As all BridgeCo reference design platforms, it includes:

- evaluation board
- schematics
- layouts
- software customization kits
- hardware design guides, etc.

The software supports several combinations of connectivity options to support hardware designs, providing OEMs a fast time-to-market, and a cost efficient vehicle on which to launch new and innovative consumer entertainment products.

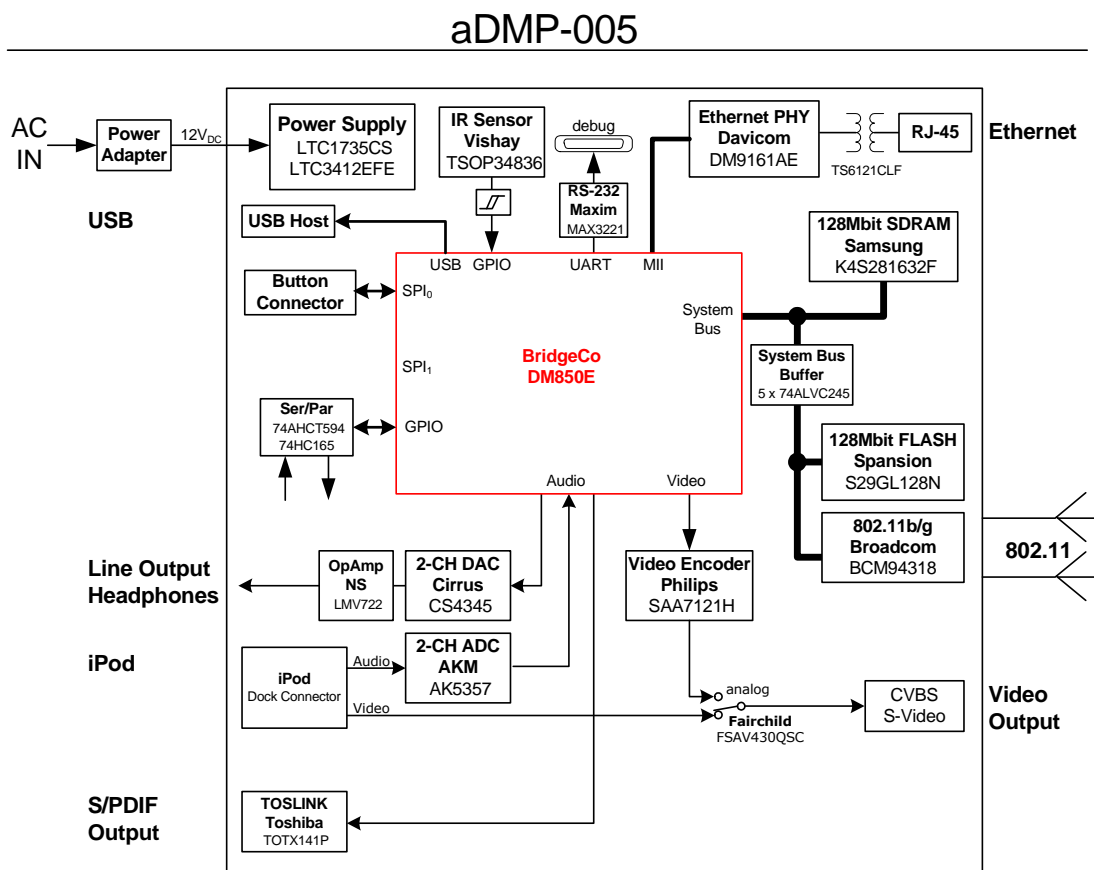


Figure 1
Reference Design Platform Block Diagram

System Overview

The Wi-Fi Audio Digital Media Player Reference Design Platform is compliant with the industry standards published by the Digital Living Network Alliance Home (DLNA) and UPnP Forum. Using UPnP automatic discovery mechanisms, it bridges the content stored on the Internet, PC or an alternative server device, and provides the user interface for browsing entertainment content available on the network. Based on

sophisticated radio station database management and automatic network management, it provides easy setup functions on a Wi-Fi network. BridgeCo's Wi-Fi Audio DMP platform allows the use of a single software configurable platform for many consumer entertainment products. It provides a variety of software options to increase capability and functionality of the product.

Software Overview

A comprehensive set of software modules is available for the DM850 Wi-Fi iPod Dock and Audio DMP. The application software is based on BridgeCo's Kernel & OS (KnOS), a highly efficient real-time multithreaded processing kernel, optimized for data streaming and data handling.

The KnOS API provides abstracted access to all functions of the DM850. A comprehensive set of object-oriented software libraries is used. This software framework support typical interface functions, e.g. Infrared Remote Control, LEDs, LCD driver, and control and transport protocols including UPnP, TCP/IP and HTTP.

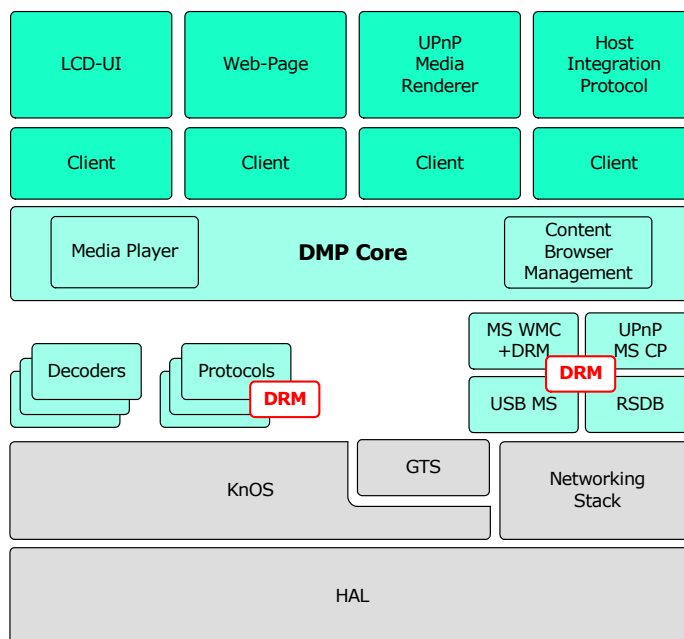


Figure 2
aDMP Software Stack

Summary of Product Features

Networking and Content Discovery

- UPnP AV 1.0
- UPnP / DLNA Media Server Control Point
- UPnP Media Renderer
- Wireless 802.11b/g networking with WEP/WPA
- Network site survey (SSID) and selection
- 10/100 base-T wired Ethernet
- Automatic switching between AutoIP and DHCP
- Multiple user-defined network profiles.
- USB storage device
- Apple iPod

Audio Support

- MP3, WMA, LPCM, WAV

Playlists

- WPL, M3U, ASX

Premium Content Services

- Real Rhapsody
- vTuner Internet Radio

Server Interoperability

- Any DLNA 1.0 compliant server
- Any UPnP AV 1.0 Media Server

Digital Rights Management

- Windows Media DRM10

International Language Support

- Input and display technology for West European languages.

User Interface

- Graphical interface with background images and Album art
- Composite and S-Video outputs in PAL or NTSC
- Jump search
- Pre-sets
- Dynamic Favorites list

System Management

- Software upgrade over 802.11b/g using web browser or direct from internet
- Web interface
- Auto network configuration discovery
- Installation Wizard for ease of product setup
- Real-time browsing of radio station database.

Industry Standards

- Wi-Fi Alliance
- DLNA (Digital Living Network Alliance)
- UPnP (Universal Plug and Play)

Development Options

TV UI Reference Design and Customization Kit

The TV UI code can be specified using XML and is then compiled into the final binary. A sample UI is provided with the kit.

Customers can modify the look and feel of the UI offline, including location of items on the screen, fonts, graphics, and scrolling of text items. The flexible TV UI Engine

provides capabilities for pop-up windows, linear animation, and fade in/out, allowing customers to develop a truly unique product. A software tool running on a Linux PC or MAC is available separately to develop the UI interactively. Examples of what can be displayed by the TV UI are provided here below.

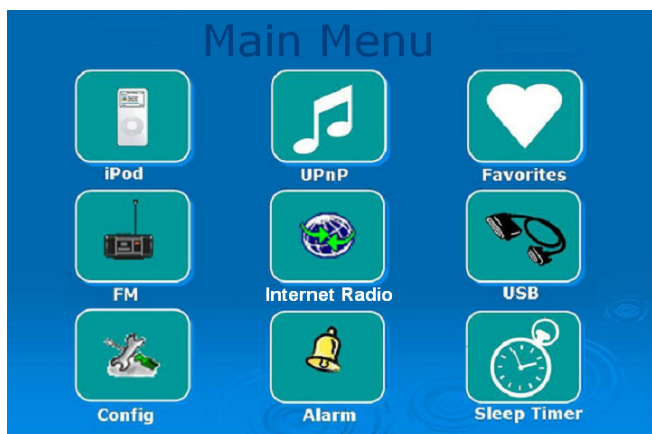


Figure 3



Figure 4

BridgeCo Reference Design Software

The BridgeCo Reference design kit offers production-ready firmware and customization tools that enable a customer to make limited customizations to the BridgeCo Wi-Fi Audio DMP application software. This software is designed for compatible hardware designs, and provides a quick time to market for a product with proven functionality and features, while giving it the custom look-and-feel.

Evaluation Board Wi-Fi Audio DMP

The Wi-Fi Audio DMP evaluation board makes it possible to explore all the capabilities of the DM850 IC and the Wi-Fi iPod Dock and Audio DMP software.

Software License

All software delivered and used in conjunction with the Wi-Fi Audio DMP is covered by BridgeCo’s software license.

DM850 Network and Signal Processor

The DM850 Media Networking Processor is a highly flexible interface processor optimized for secure, real-time encoding / decoding and processing of multi-channel audio media content. It features an on-chip Ethernet MAC, USB 2.0 Controller and PHY, and a direct, glueless interface to 802.11 PHY/MAC chipsets.

For further details, please see the DM850 Product Information brochure.

Ordering Information

Product Description	Ordering Code
Wi-Fi® Audio DMP – TV UI	Reference Design Platform package – aDMP-005
BridgeCo UI Master Tool – A UI development tool	Tree Viewer – UI-MT

For information on additional software modules, integrated software application packages, or pricing and order enquiries, please contact BridgeCo directly:

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