

KestrelMedia™ Digital Media Player

Wireless DMP Reference Design with ESS ES6425 + Ubicom IP3023 + Atheros 802.11a/g



Wireless Digital Media Player

Product Brief

The *KestrelMedia™* Digital Media Player (DMP) design can play back Flash cards and streamed audio/video/photo files located on other devices connected to your home WiFi or Ethernet network. Just like other CE devices such as a DVD player, the unit connects to TVs through a variety of standard A/V interfaces. When streaming files over from the home network however, it uses DLNA™ (Digital Living Network Alliance) compliant protocols to discover, classify and play back remotely stored audio/photo/video files from a wide variety of DLNA compliant servers.

The *KestrelMedia* platform differentiates itself in three main areas:

- 1) Provides extremely reliable and robust user experience
- 2) Cost-effective solution leverages media decoder used in many DVD players, flat panel TVs (FPTVs) and set top boxes (STBs)
- 3) Clear integration path into existing consumer electronics products

Other networked streaming solutions invariably fall short on one or more of these targets today. To support a robust user experience for streaming playback of multimedia files over WiFi networks, the *KestrelMedia* platform is based on a dual architecture approach, using separate processors for networking and AV/GUI processing. This provides a product capable of supporting 802.11g, SuperG, MIMO, or even the EWC/pre-11n wireless connectivity (Atheros radios), but with enough horsepower for AV processing, menu navigation and all traditional user interface functions to work quickly and reliably. With the *KestrelMedia* platform, streaming content over the network works better than playing DVDs/CDs in a normal DVD/CD player.

Other product variations for Wireless LCD TVs, STBs and standalone media players are available using alternate versions of ESS codec ICs.

KEY FEATURES

- Digital Media Player reference design — for play back of:
 - Streamed movies/music/photos over home network or internet
 - Flash Memory Cards
- Wireless Media Player prototype for TV/Panel integration, and STBs
- Dual Architecture implementation for best performance and easy integration
 - ESS Codec for media and UI
 - Ubicom Network CPU for best-in-class WiFi streaming performance

SPECIFICATIONS

- Networking capabilities
 - DLNA v1.5 compliant design - works with Windows Media Player 11 and other UPnP servers
 - DLNA player and renderer
 - Connect via WiFi, 10/100 Ethernet
 - Atheros Radio Support:
 - 802.11a/g, SuperG, MIMO, pre-n
 - WPAv2, WCN protocols
- Multimedia Resolution/Formats:
 - Resolution
 - Photo Decode 3480x5120 pixels
 - Video Decode 480p/576p
 - Video Output = 480p/576p
 - Formats
 - Video: MPEG1, MPEG 2, MPEG4, DIVX, XVID, MJPEG
 - Photo: JPEG, GIF, BMP, PNG
 - Audio: PCM/WAV, MP3, WMA, AC3, AAC, OGG Vorbis
 - Inputs/Outputs and Connectors
 - Video: Composite (RCA), S-Video, SCART
 - Audio: Stereo L/R (RCA), S/PDIF (optical/coax)
 - Storage playback: Multi-format Flash card reader