



ESS Technology, Inc.

ES6461 / ES6460

DMPX Digital Media Processor

Product Brief

OVERVIEW

The **DMPX** series is a 4th generation Digital Picture Frame and HDD Media Player solution built upon ESS's highly popular DMP3 (ES6430), DMP2 (ES6425) and DMP1 (ES6420) processors.

Part Number		Core Function	HS USB 2.0 OTG	Digital TCON / HDMI Tx I/F	CF / IDE	AC3
ES6460SAA	128 LQFP	Analog TCON	1	x	x	x
ES6460SBA		RTC	1	x	√	x
ES6461SAA	176 LQFP	MPEG / JPEG	2	√	√	x
ES6461SAB		MP3 Card Reader	2	√	√	√

The **DMPX** has a versatile card reader interface for direct connection to CF/MicroDrive, SD, MMC, MS/MS Pro, xD, SM, and IDE hard drives. In addition, HS USB 2.0 host/device interfaces are included for connection to PC, thumb drive, USB hard drives and cameras. The built-in A/V decoder supports MPEG 1/2/4, JPEG and MP3 formats with numerous other options including Dolby AC3 and WMA.

The **DMPX** further integrates the TCON, RTC, DC/DC PWM and NAND Flash controllers to make it the most integrated solution for Digital Picture Frame products. In addition, the boot from NAND Flash feature allows additional system cost savings by eliminating the SPI flash.

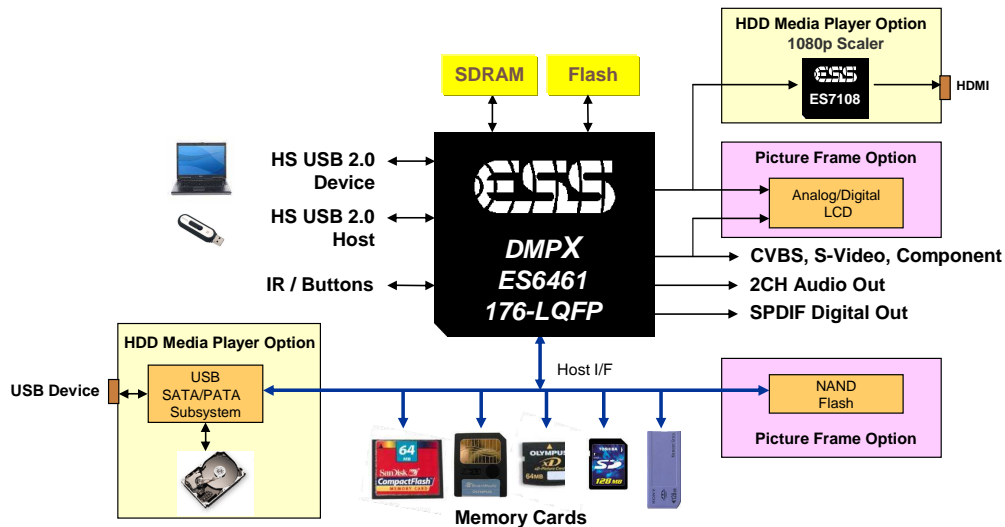
The **DMPX** ES6461 can work with the companion ES7108 Video Scaler/HDMI transmitter to upscale any standard definition (480i/p) video to full 1080p high definition output needed for the emerging HDD Media Player products.

KEY FEATURES

Feature	Benefit
Audio/Video <ul style="list-style-type: none"> 4ch Video DAC 8/12-bit Digital Video Out Stereo Audio DAC 	<ul style="list-style-type: none"> Analog LCD or CVBS / S / Component / VGA / SCART Digital LCD or HDMI (with ES7108) output Eliminate external audio DAC
System & Peripheral <ul style="list-style-type: none"> 32kB RISC cache TCON RTC NAND Flash Boot DC/DC PWM HS USB 2.0 OTG Card Reader IDE port 	<ul style="list-style-type: none"> Increase JPEG decoding speed Eliminate external TCON for LCD control Eliminate external RTC for clock / calendar Reduce cost by eliminating SPI flash Reduce cost for LCD VGH/VGL and backlight generation Connect USB thumb-drives, cameras or PC Read/write SM, xD, SD, MMC, MS/MS Pro Connect to CF / MD / hard drives or network controllers
Media Playback <ul style="list-style-type: none"> MPEG 1/2/4 decoder JPEG/MP3 decoder WMA/AC3 option 	<ul style="list-style-type: none"> Display MPEG-4 AVI, DVD or VCD video files Display pictures and music slideshows Playback WMA/AC3 audio

APPLICATIONS

- Digital Picture Frames
- HDD Media Player
- Digital Signage Media Player
- Video / Photo IP Phone



DEVELOPMENT KIT

Two development kits are available

- **DMPX ES6461** HDD Media Player or Digital Picture Frame reference design
- **DMPX ES6460** Digital Picture Frame reference design

Each development kit comes with a complete set of tools:

- Data sheet and schematics
- User Interface software source code
- ROM emulator for code development

Additionally ESS provides FAE support for:

- Customer prototype design
- Firmware customization