

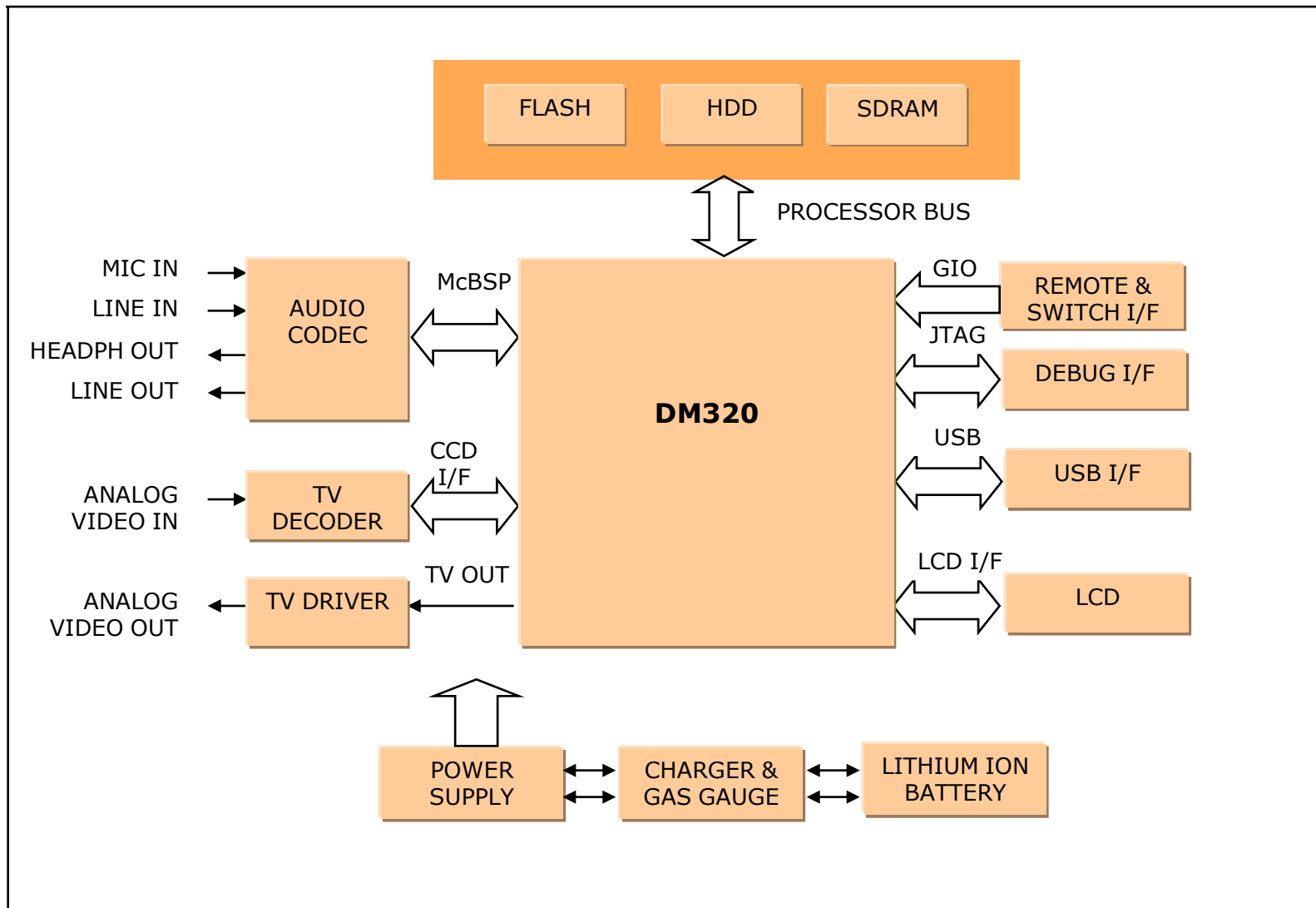
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Portable Media Player based on TMS320DM320



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PMPR Block Diagram



PMPR – Hardware Features

- ◆ **Processor**
 - Based on TI's DSP TMS320DM320
- ◆ **Memory**
 - 64 MB SDRAM
 - 4 MB Flash Memory
 - 1.8 inches, 20 GB Hard Disk Drive
- ◆ **Video Output**
 - 3.5 inches, QVGA (240 x 320) LCD
 - Analog CVBS Output (NTSC/PAL)

PMPR – Hardware Features

- ◆ **Video Input**
 - TV Decoder [TVP5150] for Analog CVBS Input
- ◆ **Audio**
 - Stereo Audio Codec [TMS320AIC23B]
 - Supports Headphone Out, Line Out, Line In and Microphone input.
- ◆ **USB**
 - USB 2.0 Full Speed OTG Interface
 - For file transfer and Firmware Update

PMPR – Hardware Features

◆ User Interface

- Joystick for menu navigation
- Infrared Sensor for Remote Control

◆ Power Supply

- 3600 mAH Lithium Ion Battery
- Built-in Charger Circuit
- Coulomb Counter [BQ26231] for Gas Gauging
- SMPS & LDOs for 3.3V, 1.8V, 1.5V
- SMPS for LCD & Backlight Power Supply

◆ Video Decoder

- **MPEG4 Simple Profile Video Decoder, Full D1 Resolution at 30 fps with MP3/AAC/WMA/G726/ADPCM/WAV Audio at all sampling frequencies and bitrates.**
- **MPEG-1/2 MP @ML + MP3/AAC/WAV supports D1 @ 30fps and all audio sampling frequencies and all bitrates**
- **WMV +WMA: Video @ CIF @30fps and Microsoft certified WMA audio supporting Levels 1-3.**

◆ Video Decoder

- **H.264 (BP) + AAC+/BSAC: Video @ CIF @30fps, audio supporting all frequencies and bitrates**
- **Multiple File Formats Supported:**
 - ASF, AVI, MP4, MPG, DivX311™, DivX4™, DivX5™
- **Rotation & Scaling support in Software**
 - No additional glue logic required

PMPR – Software Features

- ◆ **Audio player**
 - **MP3 (MPEG-1,2,2.5,3 and layers 1, 2, 3)**
 - **AAC/WMA/BSAC/AAC+/G726/ADPCM/WAV**
 - **Supports extra features like Spectrum display, 10-band Graphic Equalizer with 16 preset functions.**

- ◆ **Video Encoder**
 - **MPEG-4/DivX + MP3: D1 @ 30fps, CBR and VBR supported, MP3 supports layer-3.**

PMPR – Software Features

- ◆ **Audio standalone recording:**
 - **MP3/WMA/G726/ADPCM/WAV**
- ◆ **Image player with Music supporting:**
 - **Baseline JPEG encode and decode @ 16MPixels**
 - **Progressive JPEG/BMP/PNG/GIFF/TIFF decoders @ 4MPixels**
 - **All the above image codecs with MP3/AAC/WMA/BSAC/AAC+/G726/ADPCM/WAV**

PMPR – Software Features

- ◆ **Operating System**
 - **Embedded Linux**
- ◆ **Device Drivers**
 - **Hard Disk Driver optimized for minimizing power consumption**
 - **SPI Based driver for Audio Codec**
 - **I²C™ Based driver for TV Decoder**
 - **User Interface**
 - **Serial Communication driver for Coulomb Counter**

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