



# **VPU Decoder**

## **Product Data Sheet**

### **V1.1**

Updated: July 22, 2010

#### **Features**

- Configurable output formats, supported output format: IYUV and NV12 fourcc formats
- Support for multi-threaded environment)
- Conformant to applicable standards.
- GStreamer plugin wrapper for Linux® platforms
- DirectShow filter wrapper for Windows® CE platforms
- OpenMAXIL layer component

## Supported Platforms

- Hardware – i.MX which includes VPU Hardware
- Software – eLinux, Windows® Embedded CE operating systems

## VPU Chip Details

i.MX27 Platform		Supported Codecs
<ul style="list-style-type: none"> <li>• Max Decode Resolution: D1</li> <li>• Max number of Instances: 2</li> <li>• Render Mechanism: eMMA</li> </ul>		<ul style="list-style-type: none"> <li>• H.264 Baseline Profile Level 3</li> <li>• MPEG-4 Simple Profile</li> <li>• H.263 Profile 0 and Profile 3 Level 70</li> </ul>
i.MX37 Platform		
<ul style="list-style-type: none"> <li>• Max Decode Resolution: D1</li> <li>• Max number of Instances: 4</li> <li>• Render Mechanism: V4L(IPU)</li> </ul>		<ul style="list-style-type: none"> <li>• H.264 BP/MP/High Profile Level 3</li> <li>• MPEG-4 Simple Profile and ASP Level 5</li> <li>• H.263 Profile 0 and Profile 3 Level 70</li> <li>• JPEG Baseline Profile</li> <li>• MJPEG Baseline Profile</li> <li>• VC-1 – Advanced Profile Level 1</li> <li>• DivX – Home Theatre</li> <li>• MPEG-2 Main Profile Main Level</li> </ul>
i.MX51 Platform		
<ul style="list-style-type: none"> <li>• Max Decode Resolution: 720p</li> <li>• Max number of Instances: 4</li> <li>• Render Mechanism: V4L(IPU) or OpenGL(GPU)</li> </ul>		<ul style="list-style-type: none"> <li>• H.264 BP/MP/High Profile Level 3.1</li> <li>• MPEG-4 Simple Profile and ASP Level 6</li> <li>• H.263 Profile 0 and Profile 3 Level 70</li> <li>• JPEG Baseline Profile</li> <li>• MJPEG Baseline Profile</li> <li>• VC-1 – Advanced Profile Level 2</li> <li>• DivX – High Definition</li> <li>• MPEG-2 Main Profile High Level</li> <li>• Real Video 8,9,10 **</li> </ul>
i.MX53 Platform		
<ul style="list-style-type: none"> <li>• Max Decode Resolution: 1080p</li> <li>• Max number of Instances: 4</li> <li>• Render Mechanism: V4L(IPU) or OpenGL(GPU)</li> </ul>		<ul style="list-style-type: none"> <li>• H.264 BP/MP/High Profile Level 3.1</li> <li>• MPEG-4 Simple Profile and ASP Level 6</li> <li>• H.263 Profile 0 and Profile 3 Level 70</li> <li>• JPEG Baseline Profile</li> <li>• MJPEG Baseline Profile</li> <li>• VC-1 – Advanced Profile Level 2</li> <li>• DivX – High Definition</li> <li>• MPEG-2 Main Profile High Level</li> <li>• Real Video 8,9,10 **</li> </ul>

\*\* Real Video is an exclusive codec not available in the standard release. This codec has special license restrictions that can be obtained only via special licensing from Freescale.

Performance can vary depending on the platform configuration for memory and cache and the number of instances being rendered. Rendering performance varies between different render mechanisms. For a single instance all decoders can render at full frame rate in a normal bit rate scenario.

*For further details, contact a Freescale customer representative.*

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