



VPU Decoder

Product Data Sheet

V1.2

Updated: July 30, 2012

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"> • Max Decode Resolution: D1 • Max number of Instances: 2 • Render Mechanism: eMMA 	<ul style="list-style-type: none"> • H.264 Baseline Profile Level 3 • MPEG-4 Simple Profile • H.263 Profile 0 and Profile 3 Level 70
i.MX37 Platform	
<ul style="list-style-type: none"> • Max Decode Resolution: D1 • Max number of Instances: 4 • Render Mechanism: V4L(IPU) 	<ul style="list-style-type: none"> • H.264 BP/MP/High Profile Level 3 • MPEG-4 Simple Profile and ASP Level 5 • H.263 Profile 0 and Profile 3 Level 70 • JPEG Baseline Profile • MJPEG Baseline Profile • VC-1 – Advanced Profile Level 1 • DivX – Home Theatre • MPEG-2 Main Profile Main Level
i.MX51 Platform	
<ul style="list-style-type: none"> • Max Decode Resolution: 720p • Max number of Instances: 4 • Render Mechanism: V4L(IPU) or OpenGL(GPU) 	<ul style="list-style-type: none"> • H.264 BP/MP/High Profile Level 3.1 • MPEG-4 Simple Profile and ASP Level 6 • H.263 Profile 0 and Profile 3 Level 70 • JPEG Baseline Profile • MJPEG Baseline Profile • VC-1 – Advanced Profile Level 2 • DivX – High Definition • MPEG-2 Main Profile High Level • Real Video 8,9,10 **
i.MX53 Platform	
<ul style="list-style-type: none"> • Max Decode Resolution: 1080p • Max number of Instances: 4 (up to 16) • Render Mechanism: V4L(IPU) or OpenGL(GPU) 	<ul style="list-style-type: none"> • H.264 BP/MP/High Profile Level 3.1 (Level 4.1) • MPEG-4 Simple Profile and ASP Level 6 and up to 1080p • H.263 Profile 0 and Profile 3 Level 70 and up to 1080p • JPEG Baseline Profile • MJPEG Baseline Profile • VC-1 – Advanced Profile Level 2 (Level 3) • DivX – High Definition • MPEG-2 Main Profile High Level • Real Video 8,9,10 **

i.MX6D/Q Platform	
<ul style="list-style-type: none"> • Max Decode Resolution: 1080p • Max number of Instances: 16 • Render Mechanism: V4L(IPU) or OpenGLES(GPU) 	<ul style="list-style-type: none"> • H.264 BP/MP/High Profile Level 4.2 • MPEG-4 Simple Profile and ASP Level 6 and up to 1080p • H.263 Profile 0 and Profile 3 Level 70 and up to 1080p • JPEG Baseline Profile • MJPEG Baseline Profile • VC-1 – Advanced Profile Level 3 • DivX – High Definition • MPEG-2 Main Profile High Level • Real Video 8,9,10 ** • VP8 up to 720p

** 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.