

	Platforms Supported	Key Features	Compliance		Performance Metrics				
			Standards	Certification	Typical Specifications	Performance (MHz)	Memory - ROM (KB)	Memory - RAM (KB)	Other
Audio Decoders									
AAC LC	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports MPEG-2 and MPEG-4 audio decodingSupports 2-channel low complexity (LC) profile decodingSupports sampling frequency up to 96 KHzSupports .aac input files (RAW, ADIF, ADTS bit streams)Supports CBR and VBRSupports TNS and PNS toolsSupports mono, stereo, joint-stereoConfigurable support for dynamic range control toolSupports multi-channel filesError concealmentISO conformanceConfigurability for 16-bit, 24-bit and 32-bit outputConfigurability for interleaved stereo outputGstreamer plugin wrapper for Linux platformsDirectShow filter wrapper for WinCE Platforms	<ul style="list-style-type: none">ISO/IEC 13818-7ISO/IEC 13818-4ISO/IEC 14496-3	Standard compliant	48KHz, 256Kbps, stereo	eLinux: 16.05 WinCE: 16.81	86	61	
Enhanced aacPlus	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports MPEG-2 and MPEG-4 audio decodingSupports 2-channel low complexity (LC) profile decodingSupports sampling frequency up to 96 KHzSupports .aac input files (RAW, ADIF, ADTS bit streams)Supports CBR and VBRSupports TNS and PNS toolsMono, stereo, joint-stereoConfigurable support for dynamic range control toolSupports decoding of HE-AAC version 1.2 (Spectral Band Replication)Supports decoding of HE-ACC version 2.0 (Parametric Stereo, HIGH QUALITY mode)Supports low power (LP) modeConfigurability for 16-bit, 24-bit and 32-bit outputSupports down samplingCoding Technologies (Dolby Labs) platform certificationError concealmentConfigurability for interleaved stereo outputGstreamer plugin wrapper for Linux platformsDirectShow filter wrapper for WinCE platforms	<ul style="list-style-type: none">ISO/IEC 13818-7ISO/IEC 13818-4ISO/IEC 14496-3ISO/IEC 14496-4ISO/IEC 14496-3	Code Technology Certification Coding Technology aacPlus Decoder Certification	44.1KHz, 48Kbps, stereo	eLinux: 52.72 WinCE: 58.69	169	140	
MP3	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports MPEG-1 Layer 1 audio decodingSupports MPEG-1 Layer 2 audio decodingSupports MPEG-1 Layer 3 audio decodingSupports MPEG-2 Layer 3 audio decodingSupports MPEG-2.5 Layer 3 audio decodingSupports ABR, VBR and CBRSupports mono, stereo, and joint-stereoConfigurable 16 or 24 bit PCM outputError concealmentBad frames trigger soft muteConfigurability for interleaved stereo outputGstreamer plugin wrapper for Linux platformsDirectShow filter wrapper for WinCE platforms	<ul style="list-style-type: none">ISO/IEC 11172-3ISO/IEC 11172-4ISO/IEC 13818-3	Standard compliant	48KHz, 320Kbps, stereo	eLinux: 14.89 WinCE: 16.54	47	24	
WMA10 Standard	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports Windows Media Audio (WMA) audio decodingCompatible with up to WMA version 10Supports raw WMA and ASF formatsSupports the L1, L2 and L3 profilesSupports all WMA bit rates and sampling rates, as specified in the L1, L2 and L3 profilesSupports stereo and monoConfigurability for interleaved stereo outputConfigurability for 16-bit, 24-bit and 32-bit outputMicrosoft platform certificationGstreamer plugin wrapper for Linux platforms	<ul style="list-style-type: none">ASF Specification from Microsoft Corporation, Revision 01.20.02, June 2004WMASStdDecoderSpec	Microsoft CTT 1.0	44KHz, 320Kbps	eLinux: 17.73 WinCE: 21.43	644	51	
WMA10 Lossless	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports Windows Media Audio (WMA) lossless audio decodingCompatible with up to WMA version 10Supports up to N2 profile decodingSupports multi-channelConfigurability for interleaved stereo outputSupports bit rates up to 940 KbpsMicrosoft platform certificationGstreamer plugin wrapper for Linux platforms	<ul style="list-style-type: none">ASF Specification from Microsoft Corporation, Revision 01.20.02, June 2004WMALSIDecoderSpec	Under submission for Microsoft CTT 2.0	48KHz, 4100Kbps, 6 channels	eLinux: 194 WinCE: 206	774	146	
WMA10 Pro	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware – eLinux and WinCE operating systems	<ul style="list-style-type: none">Compatible with up to WMA version 10Supports device profiles M0a, M0b, M1, M2, M3Supports multi-channels and downmix.Microsoft platform certificationGstreamer plugin wrapper for Linux platforms	<ul style="list-style-type: none">ASF Specification from Microsoft Corporation, Revision 01.20.02, June 2004WMAProDecoderSpec	Microsoft CTT 2.0	44.1KHz, 128Kbps	eLinux: 39.3 WinCE: 39.7	644	156	
Audio Encoders									
MP3	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports MPEG-1 Layer 3 audio encodingSupports 32kHz, 44.1kHz and 48kHz sample ratesSupports mono and stereo output16 bits PCM inputGstreamer plugin wrapper for Linux platformsDMO filter wrapper for WinCE Platforms	<ul style="list-style-type: none">ISO/IEC 11172-3ISO/IEC 11172-4ISO/IEC 13818-3	Standard compliant	44.1KHz, 128Kbps	eLinux: 33.01 WinCE: 40.82	52.3	35.9	
WMA	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports Windows Media® Audio (WMA) audio encodingCompatible with up to WMA version 8Supports raw WMA and ASF formats outputSupports the L1, L2 and L3 ProfileSupports all WMA bit rates and sampling rates, as specified in the L1, L2 and L3 profilesSupports stereo and mono16 bits PCM inputMicrosoft® platform certificationGstreamer plugin wrapper for Linux® platformsDMO filter wrapper for Windows® CE platforms	<ul style="list-style-type: none">ASF Specification from Microsoft Corporation, Revision 01.20.02, June 2004WMAEncoderSpec	Microsoft CTT 2.0	48KHz, 128kbps	eLinux: 118 WinCE: 144	368.3	905.8	
Video Decoders									
H.264 BP	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports MPEG-4, Part 10 video decodingSupports H.264 baseline profile (BP) decodingSupports ASO and FMODecodes baseline profile streams with level up to 5.1 encoded bit streams at NAL-unit boundaryError resilience and concealment tools presentConfigurable to enable hardware de-blocking acceleratorsConfigurable output formats, supported output format: IYUV and UYVY fourcc formatsUser configurability for video croppingRe-entrant and Re-locatable decoder (support for multi-threaded environment)Low latencyITU conformanceGstreamer plugin wrapper for Linux platformsDirectShow filter wrapper for WinCE platforms	<ul style="list-style-type: none">ITU-T Rec. H.264 ISO/IEC 14496-10 AVCH.264 Conformance Spec, JVT-J011	Under submission for MPEG IOT	CIF, 30fps, 768kbps Max: VGA, 15fps, 600kbps	eLinux: 236 WinCE: 312	80	1500	
MPEG-2 MP	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux operating system	<ul style="list-style-type: none">Supports MPEG-1 video decodingSupports MPEG-2 video decodingSupports main profile (MP) @ main level (ML) decodingConfigurable output formats, supported output format: IYUV and UYVY fourcc formatsGstreamer plugin wrapper for Linux platformsDirectShow filter wrapper for WinCE Platforms	ISO/IEC 13818-2	Standard compliant	D1, 25fps, 4Mbps	eLinux: 336 WinCE: N/A	40	2280	
MPEG-4 SP/H.263	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports MPEG-4 video decodingSupports simple profile (SP) @ level 5 (L5)Error resilience and concealment tools presentConfigurable output formats, supported output format: IYUV and UYVY fourcc formatsRe-entrant and re-locatable decoder (support for multi-threaded environment)Low latencyISO conformanceGstreamer plugin wrapper for Linux platformsDirectShow filter wrapper for WinCE Platforms	<ul style="list-style-type: none">ISO/IEC 14496-2ISO/IEC 14496-4ITU-T H.263 Video coding spec.	Standard compliant	CIF, 27fps, 522kbps Max: VGA, 25fps, 2Mbps	eLinux: 78 WinCE: 125	63	372	
Deinterlace	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Support optimization for Arm1136Support optimization for CortexSupport chroma format 4:2:0, 4:2:2, 4:4:4Support multiple deinterlacing algorithms			720x480, 30fps	eLinux: 73 WinCE: N/A			
WMV	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports Windows Media® Video (WMV) video decodingCompatible with WMV1 WMV2Configurable output formats, supported output format: IYUV and UYVY fourcc formatsGstreamer plugin wrapper for Linux® platformsDirectShow filter wrapper for Windows® CE platformsSupports Windows Media Video (WMV) video decoding	<ul style="list-style-type: none">WMV Version 9.0, Windows Media Video V9 Decoding Specification, revision 87WMT Version 9.0, Functional Specification, Recommended Media Decoding – rev 8.1.		CIF, 30fps, 384kbps Max: VGA, 15fps, 600kbps	eLinux: 190 WinCE: 230	203	720	
WMV9MP	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Compatible with WMV version 9Supports up to main profile (MP) decodingMicrosoft platform certificationConfigurable output formats, supported output format: IYUV and UYVY fourcc formatsGstreamer plugin wrapper for Linux platformsDirectShow filter wrapper for WinCE Platforms	<ul style="list-style-type: none">Windows Media Video V9 Decoding Specification revision 87WMT Version 9.0, Functional Specification, Recommended Media Decoding – rev 8.1.	Microsoft CTT 2.0	CIF, 30fps, 384kbps Max: VGA, 15fps, 600kbps	eLinux: 190 WinCE: 245	203	720	
Video Encoders									
MPEG-4 SP/H.263	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Hardware-accelerated video encoderSupports MPEG-4 audio encodingSupports simple profile (SP) encodingSupports H.263 profile 0 and level 70 encodingBuilt-in video pre-processor, camera stabilization and cropping IP block.Supports up to VGA resolution input image.YV12 input formatGstreamer plugin wrapper for Linux platformsDirectShow filter wrapper for WinCE platforms	<ul style="list-style-type: none">ISO/IEC 14496-2ISO/IEC 14496-4	Standard compliant	eLinux: VGA, 30fps, 1Mbps WinCE: VGA, 30fps, 1.5Mbps	eLinux: 200 WinCE: 200	ROM: N/A (hardware accelerated) RAM: N/A (hardware accelerated)	ROM: N/A (hardware accelerated) RAM: N/A (hardware accelerated)	
Image Decoders									
BMP	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux operating system	<ul style="list-style-type: none">Supports Bitmap (BMP) image decodingSupports BMP formats as defined in Windows SDK (version 3 onward)BMP compressed (RLE4, RLE8) and uncompressed input formatSupports color depth 1, 4, 8, 16 and 24 bits per pixelConfigurable output formats: RGB555, 16 bit RGB (RGB565), RGB666 and 24 bit RGB (RGB888)Supports all sizes specified in BMP specification	<ul style="list-style-type: none">Windows SDK (version 3 onward) – BMP Format Documentation		1MP	eLinux: 25 WinCE: 25	11	6.5	
GIF	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux operating system	<ul style="list-style-type: none">Supports Graphics Interchange Format (GIF) image decodingSupports GIF files containing more than one image with 1 to 8 bits per pixel (GIF 87a and 89a).Supports LZW compression method to compress image data.Supports interlacing in the image data.Supports transparency in the images.Supports animation of images.Configurable output formats: 24 bit RGB (RGB888), 16 bit RGB565, 15 bit RGB555, 18 bit RGB666	<ul style="list-style-type: none">GIF 87aGIF 89a	Standard compliant	1MP	eLinux: 30 WinCE: 30	67	301.5	
JPEG	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports Joint Photographic Experts Group (JPEG) image decodingSupports baseline and progressive modesConfigurable support all the integer sampling formats allowed by the Baseline DCT coding (4:4:4, 4:2:2, 4:2:0, 4:1:1 etc)Supports color conversion from YUV to RGB-565 or RGB-888.Configurable support for interleaved UYVY formatSupports resizingSupports restart markersSupports JPEG, JFIF and EXIF thumbnails	<ul style="list-style-type: none">ISO/IEC 10918-1DIS 10918-1 and draft DIS 10918-2	Standard compliant	1MP	eLinux: 30 WinCE: 36	50	20.75	
PNG	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux operating system	<ul style="list-style-type: none">Supports Portable Network Graphics (PNG) image decodingSupports PNG specification 1.0, zlib data format v 3.3 and deflate compressed data format v 1.3Supports PNG files that contain true-color image data (24 bits per pixel), grayscale mode, and indexed-color images of up to 256 colorsSupports alpha transparency channel as well as transparency chunk handlingSupports images encoded in interleaved order (Adams7 interlacing), as well as non-interlaced ordersSupports RGB888, RGB565, RGB555 and RGB666 as output	<ul style="list-style-type: none">ISO/IEC 15948PNG Specifications 1.0 (RFC 2083)	Standard compliant	VGA	eLinux: 45 WinCE: 45	95	75.75	
Image Encoders									
SBC	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports sub-band encoderSupports 16KHz, 32KHz, 44.1KHz, 48KHz sample rates.Supports 4, 8 sub-bands.Supports 4, 8, 12, 16 block lengthSupports MONO, DUAL MONO, STEREO modeSupports psycho-acoustic modelGstreamer plugin wrapper for Linux® platformsDMO filter wrapper for Windows® CE platforms	A2DP specification for Bluetooth		48 KHz, Stereo mode, 4 sub-bands, 4 blocks, bitpool is 24, psycho-acoustic model enable, bit rate is 48000 bps	eLinux: 24.72 WinCE: Coming Soon	22	9	
JPEG	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux operating system	<ul style="list-style-type: none">Supports Joint Photographic Experts (JPEG) image decodingSupports 420 or 422 or 444 YUV inputSupports non-interleaved YUV in separate buffers.Supports YUV 422 interleaved inputConfigurability for various quality factors [0,100].Configurability to set restart markers into the JPEG bit-stream.Supports compressed thumbnails. Both JFIF and EXIF thumbnails are supportedConfigurable support for macro-block row/group of macro-block rows based encoding	<ul style="list-style-type: none">ISO/IEC 10918-1DIS 10918-1 and draft DIS 10918-2		1MP	eLinux: 105 WinCE: 105	50	33.75	
Misc Packages									
v4l_sink	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux operating system	<ul style="list-style-type: none">Supports Video4Linux (V4L) post-processing driverSupports i420 raw data formatSupports post-processing resize and rotation dynamicallySupports crop settingSupports TV out switchTested with Freescale GStreamer plugins for video decoding							
v4l_source	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux operating system	<ul style="list-style-type: none">Supports Video4Linux (V4L) pre-processing driverSupports capture pixel format and size settingSupports preview width and height settingSupports preview position and rotation settingIntegrated in Freescale mfw_v4lsrc GStreamer pluginTested with Freescale GStreamer plugin for MPEG-4 video encoding							
Parsers/Demuxers									
asf	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux operating system	<ul style="list-style-type: none">WMV video and WMA audio demuxingGStreamer plugin wrapper for Linux® platformsSupports WMDRM decryption integrated with the Janus™ libraryTested with Freescale GStreamer plugin for WMA Standard audio decodingTested with Freescale GStreamer plugin for WMV SP video decodingTested with Freescale GStreamer plugin for WMV MP video decoding			Use-Cases: WMV video + WMA audio				
avi	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux operating system	<ul style="list-style-type: none">MPEG-4 video and MP3 audio demuxingH.264 video and MP3 audio demuxingGstreamer plugin wrapper for Linux® platformsTested with Freescale GStreamer plugin for MPEG-4 SP video decodingTested with Freescale GStreamer plugin for H.264 BP video decodingTested with Freescale GStreamer plugin for MP3 audio decoding			Use-Cases: MPEG-4 video + MP3 audio H.264 video + MP3 audio				
mp4	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux and WinCE operating systems	<ul style="list-style-type: none">Supports MPEG-4 video and AAC or MP3 audio demuxingSupports H.264 video and AAC or MP3 audio demuxingGstreamer plugin wrapper for Linux platformsDirectShow filter wrapper for WinCE platformTested with Freescale DirectShow filters for MPEG-4 SP and H.264 BP video decodingTested with Freescale GStreamer plugins for MPEG-4 SP and H.264 BP video decodingTested with Freescale DirectShow DMO for AAC/MP3 audio decodingTested with Freescale GStreamer plugins for AAC/MP3 audio decoding			Use-Cases: MPEG-4 video + AAC or MP3 audio H.264 video + AAC or MP3 audio				
m2v	<ul style="list-style-type: none">Hardware – i.MX ARM11 platformsSoftware - eLinux operating system	<ul style="list-style-type: none">Parse inputted mpeg elementary data to frame basedTested with Open source GStreamer plugin for ffmpeg demuxerTested with Freescale GStreamer plugin for MPEG-2 video decoding			Use-Case: MPEG-1 system stream with open source ffmpeg demux				