

		File Extension	Container	Video Codec	Audio Codec	Comments
<b>Container</b>	<b>Movie</b>	.mpg/ .mpeg/ .dat .vob	<b>MPEG-PS</b>	. MPEG1/2 . H.264 . VC1	. MPEG Layer 1/2/3 . AC3	
		.ts/ .trp/ .m2ts/ .mts	<b>MPEG TS</b>	. MPEG1/2 . H.264 . VC1 . H.265 . AVS2	. MPEG Layer 1/2/3 . AC3 . E-AC3 . AC4	
		.avi	<b>AVI</b>	. MPEG1/2 . MPEG4 . H.264 . MJPEG	. MPEG Layer 1/2/3 . AC3 . AAC . WMA	
		.mp4/	<b>MOV</b>	. MPEG1/2 . H.263 . MPEG4 . H.264 . H.265 . AV1	. MPEG Layer 1/2/3 . AAC LC . AC3 . AC4	
	<b>Music</b>	.mp3	<b>MP3</b>		. mp3	
		.ac3	<b>AC3</b>		. ac3	
		.aac	<b>AAC</b>		. AAC	
		.wma	<b>ASF</b>		. WMA	
		.amr	<b>AMR</b>		. AMR-NB . AMR-WB	
		.wav	<b>WAVE</b>		. MPEG Layer 1/2/3 . AAC . PCM	
	.flac	<b>FLAC</b>		. FLAC		
	<b>Photo</b>	.jpg/ .jpeg	<b>JPG</b>	.JPEG .PJPEG		
		.bmp	<b>BMP</b>	.BMP		
.gif		<b>GIF</b>	.GIF			
.png		<b>PNG</b>	.PNG			

Support

	File Extension	Name	Spec.	Max Resolution (Width x Height)	Comments
<b>Picture</b>	.jpg/ .jpeg	.JPEG	. Baseline	1920x1080	* Min resolution 16x16 * Sample type 420, 444, 422, GrayScale, RGB, CMYK
			. Progressive	1920x1080	
	.gif	. Graphics Interchange Format	. 87a . 89a (Only 1 picture at animation format)	1920x1080	* Support formats: version 87a/ version 89a (only decode 1st picture at animation format)
	.bmp	. Microsoft BMP image	. RGB 1/4/8/16/24/ 32-bit . RLE 4/8-bit	1920x1080	* Support OS/2 V1, V3, and Windows V3
.png	. Portable Network Graphics	. Grayscale, 24/32-bit per pixel . Interlace Format . Progressive	1920x1081		

Support

IC Family		FHD: NT72690-2K				
	Video Codec	Supported	Max. Resolution	Bitrate (Mbps)	Max. Frame rate	Spec.
Video	MPEG-1	Yes	1920x1080	60	60	
	MPEG-2	Yes	1920x1080	70	60	. MP@LL . SP@ML . MP@ML MP@HL
	MPEG-4	Yes	1920x1080	70	60	. SP (Simple Profile) . ASP (Advanced Simple Profile)
	DivX <small>Optional</small>	No				
	H.263	Yes	1920x1080	70	60	
	H.264	Yes	1920x1080	80	60	. BP/ MP @L4.2
	VC1/ WMV/ <small>Optional</small>	Yes	1920x1080	70	60	. SP/MP/AP @ L3
	AVS		1920x1080		30	. Jizhun (SD & HD) 基準
	MVC		1920x1080		30	. Stereo High Profile @ L4.1
	H.265/ HEVC	Yes	1920x1080	100	60	Main-10, Main tier @ L4.1
	VP9	Yes	1920x1080	80	60	Profile 0/2, up to 10 bit 4:2:0
	SHVC	Yes	1920x1080	100	60	Main-10, Main tier @ L4.1
	AV1	Yes	1920x1080	40	60	Main profile @ L4.1
	H.264 Encoder	Yes	1920x1080	N/A	30	
JPEG Encoder	Yes	1920x1080	N/A	10	Baseline only	

Optional: Need to get the license in advance.

Comments
* Support Main profile and High level
* Support GMC 1-point only * Don't support QMC + Interlaced combination. * Don't support Data Partition mode.
* Support Profile 0(P0)
* MPEG4-10 * Support Constrained Baseline Profile/ Main Profile/ High Profile, doesn't support full Baseline Profile (FMO/ RS). * Constrained Baseline Profile: <a href="http://www.innocodec.com/H.html">http://www.innocodec.com/H.html</a>
Don't support complex profile.
* It supports at x2 DDR environment for bandwidth issue * It is supported by NT72569 only.

Support

	Audio Codec	Max. Channels	Sample Frequency (Hz)	Bit rate (bps)	Bit depth
<b>Audio</b>	LPCM	2	48K/ 96K	768K ~ 6144K	16/24
	PCM	6	8K ~ 48K	64K ~ 4608K	8/16
	aLaw	2	8K ~ 48K	64K ~ 768K	14
	uLaw	2	8K ~ 48K	64K ~ 768K	14
	ADPCM	2	8K ~ 48K	32K ~ 384K	14
	MPEG-I Layer I/ II	2	32K ~ 48K	32K ~ 448K	16
	MPEG-II Layer I/ II	2	16K ~ 24K	8K ~ 256K	16
	MPEG-I Layer III	2	32K ~ 48K	32K ~ 320K	16
	MPEG-II Layer III	2	16k ~ 24K	8K ~ 160K	16
	MPEG-2.5 Layer III	2	8K ~ 12K	8K ~ 160K	16
	LC-AAC <small>Optional</small>	6	8K ~ 96K	16K ~ 1440K	16
	HE-AAC V1/V2 <small>Optional</small>	6	8K ~ 96K	16K ~ 720K	16
	AAC-ELD <small>Optional</small>	2	8K ~ 48K		16
	AC3 <small>Optional</small>	6	32K/ 44.1K/ 48K	32K ~ 640K	
	E-AC3 (Dolby Digital Plus) <small>Optional</small>	6 / 16 (MS12 v2.3)	32K/ 44.1K/ 48K	32K ~ 6144K	
	Vorbis (OGG)	6	8K ~ 96K	32k ~1440kbps	
	FLAC	8	any sampling rate (1Hz ~ 655,350Hz) 8~48kHz (8 channel) 96kHz/192kHz (2 channel)		
	DRA <small>Optional</small>	8	8K ~ 192K	32K ~ 9216K	
	AVS <small>Optional</small>	6	8K ~ 96K	16K ~ 480K	
	OPUS	6 Opus Family 0/1 (2~5.1ch) Opus Family 2 (Up to spatial 5.1ch)	8K ~ 48K	6K ~ 510K (2ch) 6k ~ 3060k (6ch)	
	APE	2	6K ~ 192K	422K ~ 27M	
	AC4 <small>Optional</small>	6(MS12 v.13) /10.1 (MS12 v2.3)	48KHz		32
	MPEG-H <small>Optional</small>	16	32K/ 44.1K/ 48KHz		
	TrueHD <small>Optional</small>	15.1 (48kHz) / 2 (96kHz/192kHz)	48k/96k/192kHz		32
ALAC	8	8~48kHz (8 channel) 96kHz/192kHz (2 channel)		16/20/24/32	
MP3 Encoder <small>Optional</small>	2	48kHz	128k		
MPEG2 AAC LC Encoder <small>Optional</small>	2	48kHz	128k		

	AC3/DDP encoder <small>Optional</small>	5.1(MS12 v1.3)/5.1.2(MS12 v2.3)	48kHz	128k~1536k	
	MAT encoder <small>Optional</small>	5,1,2	48kHz	24M	

Optional: Need to get the license in advance.

Dolby

2019/11/19 MS12 v2.4				
Codec	Type	decode Request	Render	
DDP	Channel-base	7.1 (v2), 5.1(v1)	5.1	Output of channel-based audio up to 5.1-channel
	ATMOS	15 OBJ + 1 LFE	5.1.2	Up to 15 objects (each of which may be a cluster of Dolby Atmos soundtrack) and a LFE are downmixed to 7.1-channel representations in the Dolby Digital
DD	Channel-base	5.1	5.1	
HE AAC	Channel-base	5.1	5.1	support decoding of up to 5.1-channel HE AAC
AC4 (level 3)	Channel-base	11		Up to 5.1 main and 2.0 associated channel-based audio
	ATMOS	10 OBJ	5.1.2	Up to 5.1 main, 3.0 dialogue, and 2.0 associated channel-based immersive audio plus Dolby Atmos content with up to ten objects and
MAT	Channel-base	7.1	5.1	If 7.1-channel audio is input, it is decoded and then rendered to the object audio renderer
	ATMOS	31 OBJ + 1LFE	5.1.2	The decoder accepts input of up to 31.1 objects and both are used by the object audio renderer
	TrueHD	Dolby TrueHD access units		audio to a 5.1.2-channel representation.
TrueHD	48kHz, channel-based	7.1	5.1	The Dolby TrueHD decoder supports decoding TrueHD content that contains up to 7.1 channels of PCM audio with accompanying metadata. The channel presentation for decoding, even if the input is 5.1.2-channel, is rendered to the object audio renderer
	48kHz, ATMOS	15 OBJ + 1 LFE	5.1.2	The decoder accepts input of up to 15.1 objects and both are used by the object audio renderer
	96/192KHz, channel-based	2	2	audio to a 5.1.2-channel representation. if the decoder receives input at 96 kHz or 192 kHz, the decoder will downmix the audio to a 5.1.2-channel presentation to ensure that the audio is output at a complexity required to process this input at a reasonable

WMA

WMA7 (WMA Standard v1)		○
WMA8 (WMA Standard v2)		○
WMA9.x (WMA Standard v3)	STANDARD	○
	PRO	○



	PRO	<input type="radio"/>
	VOICE (WMSpeech)	<input type="radio"/>
	LOSSLESS	<input type="radio"/>
WMA10	PRO-LBR	<input type="radio"/>
	PRO-M0	<input type="radio"/>
	PRO-M1	<input type="radio"/>
	PRO-M2	<input type="radio"/>
	PRO-M3	<input type="radio"/>

DTS M6

Stream Type	Minimum Decoding Capability
	DTS M6
Core 5.x	Core 5.x <sup>a</sup>
48 kHz <sup>b</sup> : LBR 7.x	48 kHz: LBR 5.x
48 kHz: Core + XLL 8-Channel	48 kHz:Core 5.x
48 kHz: Core + XCH + XLL 6.x	48 kHz:Core 5.x
96 kHz: Core + XLL 8-Channel	48 kHz:Core 5.x
96 kHz: Core + X96 + XLL 8-Channel	48 kHz:Core 5.x
192 kHz: Core + XLL 6-Channel	48 kHz:Core 5.x
48 kHz: Core + (XBR/XCH/XXCH) 8-Channel	48 kHz:Core 5.x
96 kHz: Core + (XCH/XXCH/X96) 8-Channel	48 kHz:Core 5.x
48 kHz: XLL 8-Channel (Coreless)	48 kHz: XLL 5.x
96 kHz: XLL 8-Channel (Coreless)	96 kHz: XLL 6 channel <sup>c</sup>
192 kHz: XLL 6-Channel (Coreless)	96 kHz: XLL 5.x channel <sup>c</sup>
192 kHz: XLL 8-Channel (Coreless)	96 kHz: XLL 6-channel <sup>c</sup>

**Comments**

**Support**

* DVD (in VOB container)
* Support Intel DVI & Microsoft only and 4-bit per sample format.
* Aka. Dolby Digital
* Aka. Dolby Digital Plus
* Supports from 4 to 32 bits per sample.
. Dual DSP is needed . MS12 should be support
. Dual DSP is needed . For ATSC 3.0 application.
. Dual DSP is needed . MS12 v2.3 should be support

. Dual DSP is needed
. MS12 should be support
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. MS12 should be support

els is required
er of objects from the original mixed and encoded as 5.1- or Dolby Plus bitstream structure.
; or AAC main audio
sed audio
ed channel-based audio
is 2.0 associated audio
associated metadata
downmixed to 5.1 channels by
s and accompanying metadata, to render the object-based
of 48 kHz channel-based Dolby s and outputs up to 5.1 channels he decoder selects the 6- nput contains an 8-channel
s and accompanying metadata, to render the objectbased
Hz, it decodes the two-channel and to keep the computational reasonable level.

