








Please note:

- For media formats listed herein and especially for file extensions not explicitly listed: File extensions not listed are either not playable at all, or cause a severely impaired playback performance.
- Manually overwritten file extensions will not cause the file to become playable, but instead such manual interaction may cause loud digital decoding noise on the speaker outputs or may even crash the device, in the worst case.
- Files that contain any kind digital watermark, DRM header or general copy protection cannot be played back.
- MP3 and AVI files created with non-compliant encoder settings are prone to cause audio dropouts and/or stuttering picture performance.
- Extension of existing file extension standards and definitions can cause incompatibilities in the future, because the software decoders implemented on device are of licensed type as is, and thus memory resident by nature.
- After device start-up and during periods of increased CPU load, audio and video file playback can be affected by brief audio dropouts.
- In particular, USB mass storage devices must be formatted correctly before use. Read-in and track list processing times can be adversely affected by the memory controller resident on the mass storage device.
- In addition, even USB mass storage devices that seem to work well during initial empirical testing can still show sluggish performance and audio playback related issues, no matter if all files loaded on the storage device are of compliant format.





FILE ALLOCATION LIMITATIONS

Limitations	HardDisk 	SD Card 	DVD/-CD 
Max. number of total files	40 000	20 000	1500
Max. number files per folder	1000	1000	255
Max. number of folders	1000	1000	512
Max. number of stacked folder layers (folder sub-levels)	16	16	8
Max. supported single file size AUDIO	4GB	4GB	2GB
Max. supported single file size VIDEO	4GB	4GB	4GB
Guaranteed supported size of on data medium	64GB	32GB	4.5GB
Max. characters for single filename	255	255	255
Max. character for foldername	255	255	255

SUPPORTED AUDIO FORMATS (Compatibility with digital audio files)

Audio Formats	HardDisk / USB 	SD 	DVD/-CD 	iPod 
MP3 "MPEG-1/2/3 Audio Layer 2 & 3"	Y	Y	Y	by iPod
AAC (m4a) "Advanced Audio Coding"	Y	Y	N	by iPod
M4A (mp4a) "Advanced Audio Coding"	Y	Y	N	by iPod
FLAC "Free Lossless Audio Codec"	Y	Y	N	by iPod
WAV "Waveform Audio File Format" WAV6 (5.1) & WAV8 (7.1)	Y	Y	N	by iPod
WMA "Windows Media Audio" WMA HQ; WMA Normal & WMA VBR	Y	Y	Y	by iPod
WMA-PRO "Windows Media PRO-Audio" WMA Lossless & WMA PRO Audio	Y	Y	N	by iPod
ALAC "Apple Loss Audio Codec"	N	N	Y	by iPod
A/52 & AC3 ATSC "Dolby Digital - Advanced Television System Committee"	N	N	N	by iPod
AIFF "AUDIO Interchange File Format"	N	N	N	by iPod
RA "Real Audio"	N	N	N	by iPod
MAC "Monkey's Audio Codec"	N	N	N	by iPod
ATRAC /ATRAC 3 "Adaptive Transform"	N	N	N	by iPod
OGG "Vobis"	N	N	N	by iPod
M4R "Ringtone format"	N	N	N	by iPod

SUPPORTED VIDEO FORMATS (Compatibility with digital video files)


Video Formats	HardDisk / USB 	SD 	DVD/-CD 	iPod 
AVI (H264; XVID; FMP4)	Y	Y	Y	Not supported
MP4 (XVID; MPEG-4)	Y	Y		Not supported
H.264	Y	Y	N	Not supported
MKV 1080p	Y	Y	N	Not supported
MPEG2/TS	Y	Y	Y	Not supported
MPG (MPEG2)	Y	Y	N	Not supported
WMV	Y	Y	N	Not supported
XVID	Y	Y	Y	Not supported
MOV	N	N	N	Not supported
FLV	N	N	N	Not supported
RMVB	N	N	N	Not supported
VOB	N	N	N	Not supported
CD-MPEG1/2/3	N	N	Y	Not supported
CDDA	N	N	Y	Not supported
CD-ROM	N	N	Y	Not supported
CD-R	N	N	Y	Not supported
CD-R/RW	N	N	Y	Not supported
DVD	N	N	Y	Not supported
DVD+R/-R	N	N	Y	Not supported
DVD+R/RW	N	N	Y	Not supported
DVD-R/RW	N	N	Y	Not supported
DVD-DL	N	N	Y	Not supported
*Divx & div	N	N	N	Not supported

ZENEC-FULLSCREEN ADDITIONAL INFORMATION


Videocontainer	Codec	TV-Standards (Formate)		ZENEC Fullscreen	Image Resolution
mp4	Xvid	Encoded in PAL	High resolution	Y	800 x 480
		Encoded in NTSC	High resolution	Y	800 x 480
mp4	mpeg 4	Encoded in PAL	High resolution	Y	800 x 480
		Encoded in NTSC	High resolution	Y	800 x 480
AVI	mpeg 4 (Xvid)	Encoded in PAL	High resolution	Y	800 x 480
		Encoded in NTSC	High resolution	Y	800 x 480

GENERAL INFORMATION

HardDisk (USB)

USB Standards	1.0	Y		
	1.1	Y		
	2.0	Y	up to 64 GB	
	3.0	N		
File systems	FAT 16 (standard)	N		
	FAT 32	Y		
	exFAT	N		
	NTFS	N		
	HPFS	N		
USB speed classifications	ext2, ext3, ext4	N		
	Low_Speed, 1,5 Mbit/s (187,5 KB/s)	Y		
	Full_Speed, 12 Mbit/s (1.5 MB/s)	Y		
	High_Speed, 480 Mbit (60MB/s)	Y		
USB power management	Super_Speed, 5 Gbit/s (625 MB/s)	N		
	Operating-Power Mode, constant current output	Y	max. 500mA	
ZENEC USB-HUB	For max. three 2.0 USB data carriers + one iPod connection port	Y		

SD

SD standards	SD standard	Y		
	SDHC	Y	up to 32GB	
	SDXC	N		
File systems	FAT 16 (standard)	N		
	FAT 32	Y		
	exFAT	N		
	NTFS	N		
	HPFS	N		
SD card speed classifications	ext2, ext3, ext4	N		
	Class 2, 16 Mbit/s (2MB/s)	Y		
	Class 4, 32 Mbit/s (4MB/S)	Y		
	Class 6, 48 Mbit/s (6MB/s)	Y		
	Class 10, 80 Mbit/s (10MB/s)	N		