

# **RK27 Codec Benchmark**

**V1.3**

**Rockchip**

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## 1. RK27 Audio Decoding benchmark

### MP3 AUDIO

[Codec]: MPEG1/2/2.5 Audio Layer 3  
[Channel]: 2  
[Bitrate]: 8~320Kbps, CBR and VBR  
[Sample]: 8-48KHz  
[Exceptional]: No  
[Container]: MP3

### WMA AUDIO

[Codec]: Version 7, 8, 9,  
[Channel]: 2  
[Bitrate]: 8Kbps~320kbps  
[Sample]: 8-48KHz  
[Exceptional]: WMA Pro and WMA lossless  
[Container]: WMA

### WAV AUDIO

[Codec]: MS-ADPCM, IMA-ADPCM, PCM  
[Channel]: 2  
[compressed]: 4bit MS-ADPCM, IMA-ADPCM  
[Bitrate]:  
[Sample]: 8-48KHz  
[Exceptional]: No  
[Container]: WAV

### APE AUDIO

[Codec]: Ver. 3.95, 3.97, 3.98, 3.99, normal and fast  
[Channel]: 2  
[Sample]: 8-48KHz  
[Container]: APE

### OGG AUDIO

[Codec]: Q-1- Q10  
[Channel]: 2  
[Bitrate]:  
[Sample]: 8-48KHz  
[Exceptional]: No  
[Container]: OGG

### FLAC AUDIO

[Codec]: FLAC  
[Channel]: 2  
[Bitrate]:  
[Sample]: 8-48KHz  
[Exceptional]: No  
[Container]: FLA

### AAC AUDIO

[Codec]: ADIF ,ATDS Header AAC-LC and AAC-HE  
[Channel]: 2  
[Sample]: 8-48KHz  
[Container]: AAC

## 2. RK27 Audio Encoding benchmark

### MP3 AUDIO

[Codec]: MPEG1/2/2.5 Audio Layer 3  
[Channel]: 2  
[Bitrate]: 16~224Kbps, CBR  
[Sample]: 8-44KHz  
[Exceptional]: No  
[Container]: MP3

### WAV AUDIO

[Codec]: IMA-ADPCM and MS-ADPCM  
[Channel]: 2  
[Bitrate]: 4  
[Sample]: 8-44KHz  
[Exceptional]: No  
[Container]: WAV

### 3. RK27 Image benchmark

**JPEG**

[Codec]: JPEG  
[Compressed]: Baseline  
[Resolution]: 8000\*8000  
[Exceptional]: Progressive jpeg  
[Container]: JPG

**BMP**

[Codec]: BMP  
[Resolution]: All  
[Exceptional]: No  
[Container]: bmp

**GIF**

[Codec]: GIF  
[Resolution]: 1000\*1000  
[Exceptional]: No  
[Container]: GIF

## 4. RK27 Video benchmark

### **MPEG-4 VIDEO**

[Codec]: XviD, DivX 3/4/5, MS MPEG-4 v3  
 [Resolution<sup>[1]</sup>]: Max. 800x480(pels)  
 [Bitrate<sup>[2]</sup>]: No restriction  
 [Exceptional]: Not Support GMC&QPPEL  
 [Container]: AVI, MP4  
 [Audio decode]: MP3, AC3, MS-ADPCM

### **REAL MEDIA VIDEO**

[Codec]: Real Video Codec 8/9/10  
 [Resolution<sup>[1]</sup>]: Max. 800x480(pels)  
 [Bitrate<sup>[2]</sup>]: No restriction  
 [Exceptional]: Not Support G2  
 [Container]: RM/RMVB  
 [Audio Codec]: Real Audio

### **WMV VIDEO**

[Codec]: WMV 7/8/9  
 [Resolution<sup>[1]</sup>]: Max. 720x480(pels)  
 [Bitrate<sup>[2]</sup>]: No restriction  
 [Exceptional]: Not Support high profile, VC-1  
 [Container]: WMV, ASF  
 [Audio Codec]: WMA

### **FLASH VIDEO**

[Codec]: Sorenson H.263  
 [Resolution<sup>[1]</sup>]: Max. 640x480(pels)  
 [Bitrate<sup>[2]</sup>]: No restriction  
 [Exceptional]: Not Support O2 VP6  
 [Container]: FLV  
 [Audio Codec]: MP3

### **H.263 VIDEO**

[Codec]: H.263  
 [Resolution<sup>[1]</sup>]: Max. 800x480(pels)  
 [Bitrate<sup>[2]</sup>]: No restriction  
 [Exceptional]: N/A  
 [Container]: 3GP  
 [Audio Codec]: MP3

### **MPEG-I VIDEO**

[Codec]: MPEG-I  
 [Resolution<sup>[1]</sup>]: Max. 768x576 (pels)  
 [Bitrate<sup>[2]</sup>]: No restriction  
 [Exceptional]: N/A  
 [Container]: DAT, MPG  
 [Audio Codec]: MP2

### **MPEG-II VIDEO**

[Codec]: MPEG-II MP@ML  
 [Resolution<sup>[1]</sup>]: Max. 768x576(pels)  
 [Bitrate<sup>[2]</sup>]: No restriction  
 [Exceptional]: N/A  
 [Container]: VOB, MPG  
 [Audio Codec]: MP2

### **DV**

[Codec]: MPEG-4 SP  
 [Resolution<sup>[1]</sup>]: Max. 640x480(pels)

[Bitrate<sup>[2]</sup>]: 768kbps  
[Exceptional]: N/A  
[Container]: AVI, 3GP (*update soon*)  
[Audio Codec]: MS-ADPCM

**CMMB**

[Codec]: H.264 BP  
[Resolution<sup>[1]</sup>]: Max. 352x288(pels)  
[Bitrate<sup>[2]</sup>]: 384kbps  
[Exceptional]: N/A  
[Container]: 3GP(*update soon*)  
[Audio Codec]: AAC+

[1] [2]: The max resolution&bitrate is supported good, not means supported well.

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