

# Audio Products

## Performance Comparison

### 1 Overview

Colorfly pocket hifi is a customized product for the advanced audio. It supports most of the lossless audio format files and other compressed audio format files playback, Such as WAV,APE,FLAC,MP3,WMA.

It used advanced audio DAC chip(CS4398), The high performance DAC support sample rates up to 192kHz and accept up to 24bit audio data. Colorfly pocket hifi built a sample rate conversion(SRC) module,It can greatly improve the performance of common audio formats,improve the sound quality.

It chose the TCXO used to reduce the clock jitter, It is be able to match the high-performance desktop audio device.It support SPDIF output, Provide high-performance digital audio output.

Colorfly pocket hifi may be one of the best portable hifi audio products.

## 2 Performance Comparison

Species	Item	Parameter	Product			
			MP3/4 devices	High grade MP3/MP4	CD/ SACD player	Colorfly pocket hifi
Performance	MAX AMPLITUDE	3.5 ack output	about 500mV	about 500mV	-----	620mV
		6.3 jack output	not support	not support	-----	2000mV
	THD+N RATIO(44.1Khz FS,16ohm,32ohm, 100ohm,300ohm load conditions)	1Khz	0.06%(-64db)	0.01%(-80db)	0.006%(-85db)	0.004%(-87db)
		15Khz	0.1%(-60db)	0.06%(-64db)	0.02%(-74db)	0.014%(-76db)
		15Khz(SRC Enable)	not support	not support	not support(only Hi-End version support)	0.0022%(-90db)
	CROSSTALK	32ohm load	40db	60db	-----	>75db
	SIGNAL-TO-NOISE RATIO	-----	85db	92db	105db	108db
	Clock jitter	-----	200ppm(PXO and PLL)	50ppm(PXO and PLL)	30ppm(Used TCXO <=10ppm)	1ppm
	Support 24Bit/192Khz Files Playback	-----	No	No	ONLY SACD SUPPORT	Yes(support 16bit/24bit sample rate from 16KHz-192Khz Files)
Functions	Sample rate conversion	-----	No	No	No (only Hi-End version support)	Yes
	Low jitter SPDIF output	-----	No	No	Yes( only Hi-End version support low jitter output)	Yes
	SPDIF input	-----	No	No	No	Yes
	USB audio support	-----	No	No	No	later
	Drive 32ohm headphones	-----	Yes	Yes	-----	Yes
	Drive 100ohm	-----	No	No	-----	Yes

	headphones					
	Drive 300ohm headphones	-----	No	No	-----	Yes
	Driver 2 Way Headset	-----	No	No	-----	Yes
	Portable mobile	-----	Yes	Yes	No	Yes
	TXCO	-----	No	No	No(only Hi-End version support)	Yes
Parts Selection	Audio-specific capacitors	-----	No	No	Yes(only HiFi version support)	Yes
	Gold-plated connectors	-----	No	No	Yes	Yes
	CPLD Clock Module	-----	No	No	No(only Hi-End version support)	Yes
	wood case	-----	No	No	No	Yes
	Professional volume control	-----	No	No	No(Digital volume control)	Yes
	Advanced op amp	-----	No	No	Yes	Yes
	Advanced DAC	-----	No( Embedded)	No	Yes	Yes(High Performance DAC)
	PCB layer	-----	4 layer	4layer	2-4layer	6layer
	Custom headphone driver IC	-----	No(Embedded)	No	-----	Yes

Note:

- 1 Support 24bit/192Khz files Playback(WAV format now).
- 2 TCXO :Temperature compensated crystal oscillator.

- 3 SRC:Sample rate conversion.
- 4 Professional volume control:Provide no dynamic compression of the volume control.
- 5 Driver 2 Way Headset: Provide 2 way independent drive headphone output, It can simultaneously drive two headphones, Achieve two people to enjoy the fun of music.
- 6 Custom headphone driver IC:Provide 200mA current output. Whether driving 32 ohm or 300 ohm headphones,can maintain the best working condition.Can maintain the best signal to noise ratio and harmonic distortion.