

Colorfly pocket hifi Audio Parameters Test Report

1 Test Conditions:

Test Equipment: Audio Precision AP2722.

Test Load Resistor:

16 Ohm,32 Ohm,100 Ohm,300 Ohm.

3.5 Headphone jack load resistor: 16 Ohm,32 Ohm.

6.3 Headphone jack load resistor: 100 Ohm,300 Ohm.

Test Frequency point:

31.5Hz,200Hz,1KHz,10Khz,15Khz,20Khz.

2 Audio Parameters Test Report:

1) 3.5 Headphone jack with 32 Ohm load:

AUDIO PERFORMANCE	TEST FILE	Sound Level	A CHANNEL	B CHANNEL
MAX AMPLITUDE	NO3_16_1K_44.MP3	Typ:	612.3mV	619.1mV
	NO7_16_31.5_44.mp3	Typ:	485.1mV	497.7mV
	NO1_16_200_44.MP3	Typ:	609.5mV	613.4mV
	NO2_16_10K_44.MP3	Typ:	611.6mV	618.0mV
	NO2_16_15K_44.MP3	Typ:	610.3mV	617.8mV
	NO9_16_20K_44.mp3	Typ:	610.2mV	617.2mV
THD+N RATIO	NO3_16_1K_44.MP3	Typ:	0.00402%	0.00389%
	NO7_16_31.5_44.mp3	Typ:	0.03480%	0.03357%
	NO1_16_200_44.MP3	Typ:	0.00590%	0.00589%
	NO1_16_10K_44.MP3	Typ:	0.00734%	0.00721%
		SRC enable	0.00336%	0.00324%
	NO2_16_15K_44.MP3	Typ:	0.01422%	0.01413%
SRC enable		0.00218%	0.00216%	

		Typ:	0.83907%	0.82107%
	NO9_16_20K_44.mp3	SRC enable	0.00191%	0.00185%
CROSSTALK	NO5_16_1KL_44.MP3	Typ:		- 76.872dB
	NO6_16_1KR_44.MP3	Typ:	-76.211 dB	
Channel Unbalance	NO3_16_1K_44.MP3	Typ:	-0.132dB	0.132dB
THD+N RATIO (A-Weight)	NO3_16_1K_44.MP3	Typ:	0.00343%	0.00322%
	NO9_16_20K_44.mp3	Max:	0.00416%	0.00407%
Ground Noise	NO4_16_0_44.MP3	Max:	2.688uV	2.388uV
SIGNAL-TO-NOISE RATIO	NO4_16_0_44.MP3	Max:	-107.147dB	- 108.177dB
	NO3_16_1K_44.MP3			
SIGNAL-TO-NOISE RATIO (A-Weight)	NO4_16_0_44.MP3	Max:	-109.896dB	- 110.120dB
	NO3_16_1K_44.MP3			

2) 3.5 Headphone jack with 16 Ohm load:

AUDIO PERFORMANCE	TEST FILE	Sound Level	A CHANNEL	B CHANNEL
MAX AMPLITUDE	NO3_16_1K_44.MP3	Typ:	610.2mV	615.7mV
	NO7_16_31.5_44.mp3	Typ:	408.8mV	414.7mV
	NO1_16_200_44.MP3	Typ:	602.3mV	608.3mV
	NO2_16_10K_44.MP3	Typ:	608.1mV	613.4mV
	NO2_16_15K_44.MP3	Typ:	607.5mV	611.5mV
	NO9_16_20K_44.mp3	Typ:	602.9mV	609.6mV
THD+N RATIO	NO3_16_1K_44.MP3	Typ:	0.00411%	0.00397%
	NO7_16_31.5_44.mp3	Typ:	0.03681%	0.03615%
	NO1_16_200_44.MP3	Typ:	0.00619%	0.00602%
	NO1_16_10K_44.MP3	Typ:	0.00747%	0.00733%
		SRC enable	0.00363%	0.00348%
	NO2_16_15K_44.MP3	Typ:	0.01422%	0.01413%
		SRC enable	0.00247%	0.00232%
NO9_16_20K_44.mp3	Typ:	0.83507%	0.82402%	
	SRC enable	0.00215%	0.00202%	
CROSSTALK	NO5_16_1KL_44.MP3	Typ:		- 72.855dB

	NO6_16_1KR_44.MP3	Typ:	-72.595 dB	
Channel Unbalance	NO3_16_1K_44.MP3	Typ:	-0.173dB	0.173dB
THD+N RATIO (A-Weight)	NO3_16_1K_44.MP3	Typ:	0.00358%	0.00341%
	NO9_16_20K_44.mp3	Typ:	0.00435%	0.00424%
Ground Noise	NO4_16_0_44.MP3	Typ:	2.688uV	2.388uV
SIGNAL-TO-NOISE RATIO	NO4_16_0_44.MP3	Typ:	-107.274dB	-108.286dB
	NO3_16_1K_44.MP3			
SIGNAL-TO-NOISE RATIO (A-Weight)	NO4_16_0_44.MP3	Typ:	-109.998dB	-110.213dB
	NO3_16_1K_44.MP3			

3) 6.3 Headphone jack with 100 Ohm load:

AUDIO PERFORMANCE	TEST FILE	Sound Level	A CHANNEL	B CHANNEL
MAX AMPLITUDE	NO3_16_1K_44.MP3	Typ:	1925mV	1976mV
	NO7_16_31.5_44.mp3	Typ:	1920mV	1974mV
	NO1_16_200_44.MP3	Typ:	1926mV	1978mV
	NO2_16_10K_44.MP3	Typ:	1917mV	1962mV
	NO2_16_15K_44.MP3	Typ:	1915mV	1959mV
	NO9_16_20K_44.mp3	Typ:	1896mV	1928mV
THD+N RATIO	NO3_16_1K_44.MP3	Typ:	0.00401%	0.00396%
	NO7_16_31.5_44.mp3	Typ:	0.01585%	0.01534%
	NO1_16_200_44.MP3	Typ:	0.00601%	0.00596%
	NO1_16_10K_44.MP3	Typ:	0.00643%	0.00631%
		SRC enable	0.00339%	0.00324%
	NO2_16_15K_44.MP3	Typ:	0.01398%	0.01387%
		SRC enable	0.00244%	0.00231%
NO9_16_20K_44.mp3	Typ:	0.83117%	0.82162%	
CROSSTALK	NO5_16_1KL_44.MP3	Typ:		-81.103dB
	NO6_16_1KR_44.MP3	Typ:	-80.066 dB	
Channel Unbalance	NO3_16_1K_44.MP3	Typ:	-0.210dB	0.210dB
THD+N RATIO (A-Weight)	NO3_16_1K_44.MP3	Typ:	0.00358%	0.00341%
	NO9_16_20K_44.mp3	Typ:	0.00435%	0.00424%

Ground Noise	NO4_16_0_44.MP3	Typ:	8.315uV	7.605uV
SIGNAL-TO-NOISE RATIO	NO4_16_0_44.MP3	Typ:	-107.274dB	- 108.286dB
	NO3_16_1K_44.MP3			
SIGNAL-TO-NOISE RATIO (A-Weight)	NO4_16_0_44.MP3	Typ:	-109.998dB	- 110.213dB
	NO3_16_1K_44.MP3			

4) 6.3 Headphone jack with 300 Ohm load:

AUDIO PERFORMANCE	TEST FILE	Sound Level	A CHANNEL	B CHANNEL
MAX AMPLITUDE	NO3_16_1K_44.MP3	Typ:	1933mV	1982mV
	NO7_16_31.5_44.mp3	Typ:	1929mV	1976mV
	NO1_16_200_44.MP3	Typ:	1936mV	1988mV
	NO2_16_10K_44.MP3	Typ:	1920mV	1972mV
	NO2_16_15K_44.MP3	Typ:	1923mV	1962mV
	NO9_16_20K_44.mp3	Typ:	1903mV	1937mV
THD+N RATIO	NO3_16_1K_44.MP3	Typ:	0.00449%	0.00418%
	NO7_16_31.5_44.mp3	Typ:	0.01659%	0.01554%
	NO1_16_200_44.MP3	Typ:	0.00613%	0.00602%
	NO1_16_10K_44.MP3	Typ:	0.00650%	0.00636%
		SRC enable	0.00342%	0.00328%
	NO2_16_15K_44.MP3	Typ:	0.01399%	0.01393%
SRC enable		0.00267%	0.00251%	
NO9_16_20K_44.mp3	Typ:	0.83133%	0.82250%	
	SRC enable	0.00227%	0.00220%	
CROSSTALK	NO5_16_1KL_44.MP3	Typ:		- 88.933dB
	NO6_16_1KR_44.MP3	Typ:	-88.184 dB	
Channel Unbalance	NO3_16_1K_44.MP3	Typ:	-0.209dB	0.209dB
THD+N RATIO (A-Weight)	NO3_16_1K_44.MP3	Typ:	0.00385%	0.00371%
	NO9_16_20K_44.mp3	Typ:	0.00495%	0.00488%
Ground Noise	NO4_16_0_44.MP3	Typ:	8.315uV	7.605uV
SIGNAL-TO-NOISE RATIO	NO4_16_0_44.MP3	Typ:	-107.211dB	- 108.140dB
	NO3_16_1K_44.MP3			
SIGNAL-TO-NOISE	NO4_16_0_44.MP3	Typ:	-109.787dB	- 110.036dB

RATIO (A-Weight)	NO3_16_1K_44.MP3			
---------------------	------------------	--	--	--

a) Typ:

Typical test .

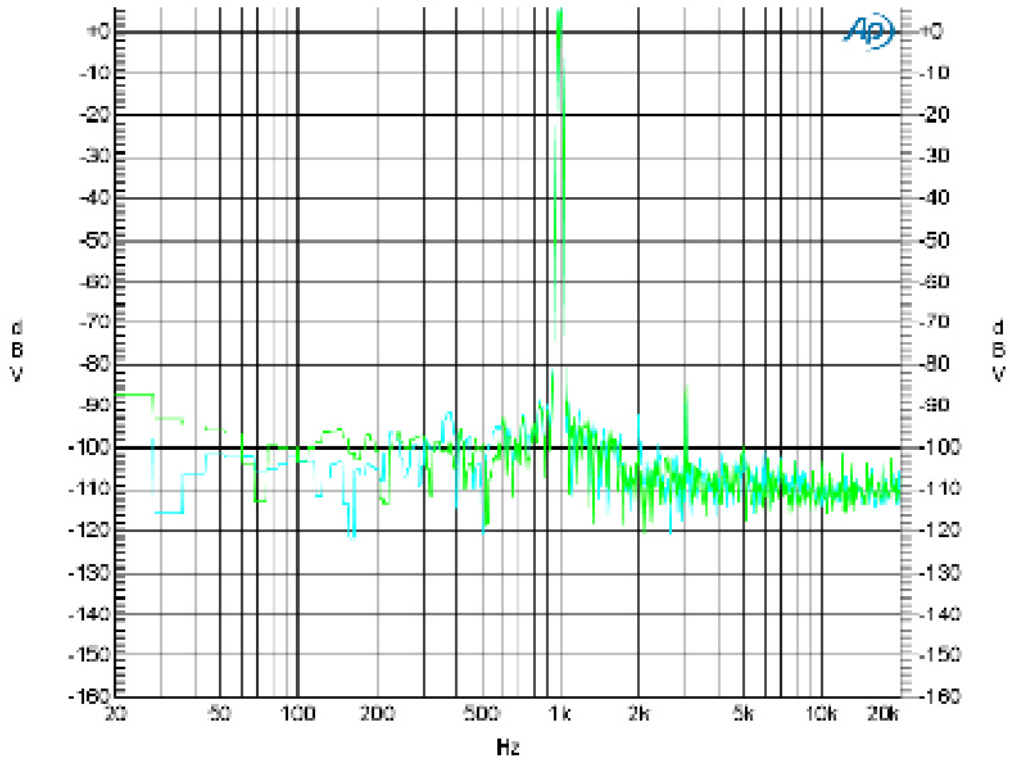
b) SRC enable:

The sample rate conversion module is shut down In typical test , DAC working mode is according to the original sampling rate and bits.when SRC enable,Output is converted to 24Bit/192Khz.

When SRC enable,the SRC module can effectively reduce the high frequency distortion.

3 Test Graphics

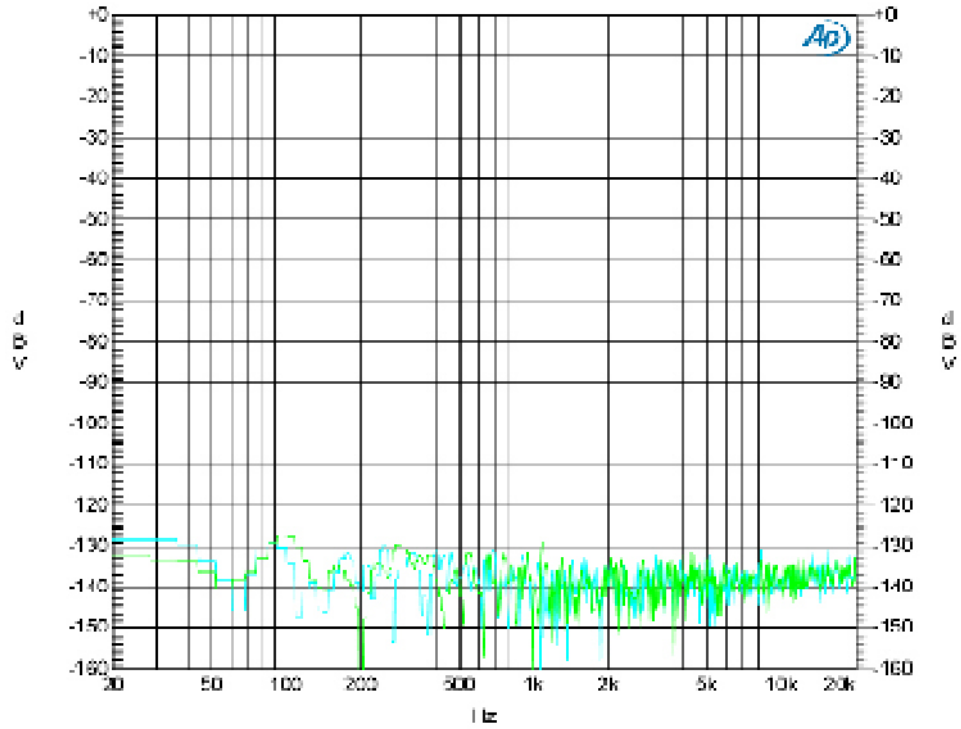
1) THD+N (1Khz 0dB @32 OHM) A-A FFT



Sweep	Trace	Color	Line Style	Thick	Data	Axis	Comment
1	1	Cyan	Solid	1	Fit Ch 2 Ampl	Left	
1	2	Green	Solid	1	Fit Ch 1 Ampl	Right	



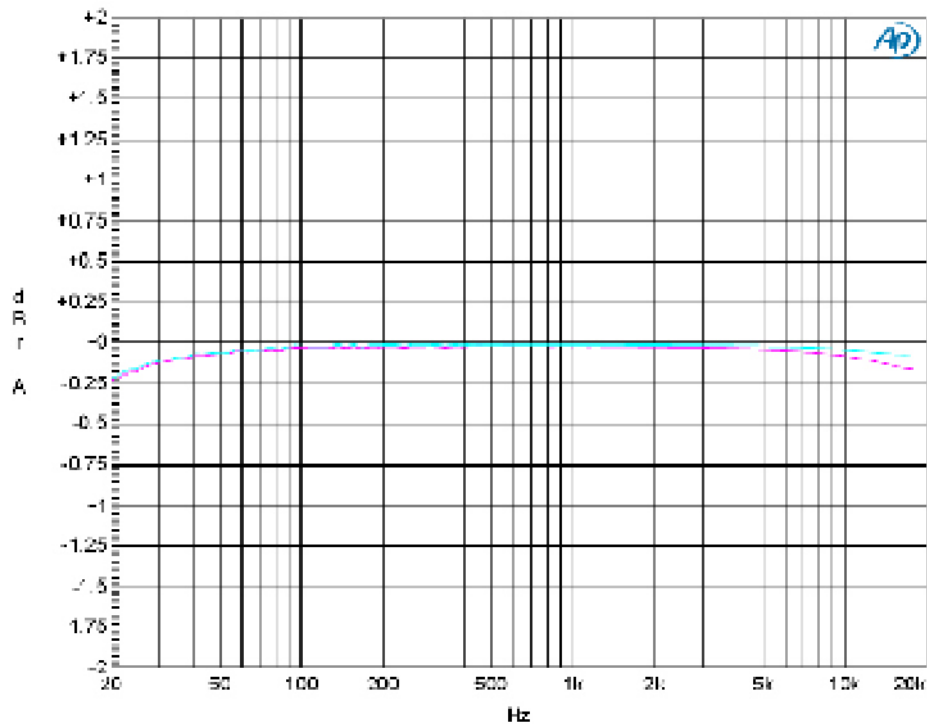
2) SNR (0 Signal @32 OHM) A-A FFT



Sweep	Trace	Color	Line Style	Thick	Data	Axis	Comment
1	1	Cyan	Solid	1	FF:Ch.2 Ampl	Left	
1	2	Green	Solid	1	FF:Ch.1 Ampl	Right	



3)Frequency response @ 100 OHM – NORMAL



Sweep	Trace	Color	Line Style	Thick	Data	Axis	Comment
1	1	Cyan	Solid	1	Anlr.Level A	Left	
1	2	Magenta	Solid	1	Anlr.Level B	Left	

The headphone amplifier can output 200mA current, frequency response is very flat with normal load. When load less than 32 ohms, it will affect the frequency response of low-frequency output, Due to the headphone amplifier used 220uF output coupling capacitor.

Colorful

6/1/2010