



Tone Series Comparisons

Model	Tone2 Pro	Tone2	Tone1
Overview	Mini desktop DAC with built-in headphone amplifier	Hi-Fi Mini Desktop DAC with balanced RCA	Professional Hi-Fi DAC
Key Features			
DAC	Yes	Yes	Yes
Headphone Amplifier	Yes	-	-
Balanced Audio	Yes	Yes	-
MQA	Licensed	-	-
Linear Power Supply	Support	Support	-
External Bluetooth Module	Support	Support	-
Finish	Enclosure (Anodised Black/Red/Blue)	Enclosure (Anodised Black/Dream Blue)	-
Maker Kit	-	Bare Board [1]	Bare Board
DAC Performance			
THD+N	0.000126% (-118dB)	0.000126% (-118dB)	0.000337% (-110dB)
SINAD	118dB	118dB	110dB
Noise	3.5uVrms (BAL) / 2.0uVrms (UNBAL)	3.5uVrms (BAL) / 2.3uVrms (UNBAL)	2.6uVrms
SNR	121dB	121dB	118dB
DNR	121dB	119dB	118dB
Crosstalk, 200KΩ	> 120dB	> 120dB	> 118dB
Output, 200KΩ	4.0 Vrms (BAL) / 2.0 Vrms (UNBAL)	4.0 Vrms (BAL) / 2.0 Vrms (UNBAL)	2.2 Vrms
Output Impedance	200 Ω (BAL) / 100 Ω (UNBAL)	200 Ω (BAL) / 100 Ω (UNBAL)	100 Ω
Sampling Rate			
USB Input	PCM 768KHz 32bit DSD 512 (Native)	PCM 768KHz 32bit DSD 512 (Native)	PCM 384KHz 32bit DSD 256 (Native)
Coaxial Input	192KHz 24bit	192KHz 24bit	192KHz 24bit
Processor			
	XMOS XU216, 16 Logical Cores	XMOS XU208, 8 Logical Cores	XMOS XU208, 8 Logical Cores
Coprocessor			
	STM8S003, Programmable	STM8S003, Programmable	-
DAC Chipset			
	ESS ES9038Q2M 32-Bit Stereo DAC	ESS ES9038Q2M 32-Bit Stereo DAC	ESS ES9038Q2M 32-Bit Stereo DAC
Amplifier Chipsets			
I/V Stage	2x TI OPA1612	2x TI OPA1612	2x RT6862
LPF Stage	2x TI OPA1612	2x RT6862	1x RT6863
Buffer Stage	3x RT6863	-	-
Ultralow Noise LDOs			
	1x ESS ES9311Q, 1.3uVrms	1x ESS ES9311Q, 1.3uVrms	5x ADI ADP150, 9uVrms
	5x ADI ADP151, 9uVrms	5x ADI ADP151, 9uVrms	-
	1x ADI ADP7118, 11uVrms	1x ADI ADP7118, 11uVrms	-
	1x ADI ADP7182, 18uVrms	1x ADI ADP7182, 18uVrms	-
Apple MFi			
	MFi 3.0 [2]	-	-
Pre-shaping Technology			
	Altera MAX V CPLD	Altera MAX V CPLD	-
Audiophile Crystal Oscillator			
	Accusilicon AS318-B Series, 45.1584MHz	Accusilicon AS318-L Series, 45.1584MHz	SiTime 22.5792MHz
	Accusilicon AS318-B Series, 49.1520MHz	Accusilicon AS318-L Series, 49.1520MHz	SiTime 24.5760MHz
	SiTime 100.0000MHz	SiTime 100.0000MHz	SiTime 100.0000MHz
High Precision			
Feedback Resistor	0.1% Film Resistors	0.1% Film Resistors	0.5% Film Resistors
Bypass Capacitor	5% Film Capacitors	5% Film Capacitors	20% Aluminum Electrolytic Capacitors
Decoupling Capacitor	5% COG Ceramic Capacitors	5% COG Ceramic Capacitors	5% COG Ceramic Capacitors
PCB Board			
	6 Layers Stackup	4 Layers Stackup	4 Layers Stackup
	Tg Rating: 170 °C	Tg Rating: 150 °C	Normal
LED (Power)			
	White, Pink, Red	White, Pink, Red	White
LED (Knob)			
	RGB Light Ring	RGB Light Ring	-
Knob			
	Hybrid Digital Volume Control	Hybrid Digital Volume Control	-
	Hardware Analog Volume	Software DAC Volume	-
	Rotate/Push Operation	Rotate/Push Operation	-
Connectivities			
USB-C Port	USB 2.0	USB 2.0	USB 2.0
I2S USB-C Port	I2S, Linear Power Supply	I2S, Linear Power Supply	-
Coaxial Input	Yes	Yes	Yes
Coaxial Output	Yes [3]	-	-

Line-out	Balanced RCA	Balanced RCA	Standard RCA
4.4 Headphone (Balanced)	Yes	-	-
3.5 Headphone (Unbalanced)	Yes	-	-
Compatibility	Windows (ASIO driver required) macOS Linux (with UAC2 compliant kernel) Android (supports OTG function) iPadOS iOS	Windows (ASIO driver required) macOS Linux (with UAC2 compliant kernel) Android (supports OTG function) iPadOS -	Windows (ASIO driver required) macOS Linux (with UAC2 compliant kernel) Android (supports OTG function) - -
Rated Voltage	DC 5V	DC 5V	DC 5V
Power Consumption	620mA (max)	450mA (max)	350mA (max)
Size (PCBA Board)		12.7mm(h) x 82.0mm(w) x 65.0mm(l)	17.0mm(h) x 82.0mm(w) x 74.5mm(l)
Size (Finish)	17.0mm(h) x 88.0mm(w) x 68.0mm(l)	17.0mm(h) x 88.0mm(w) x 68.0mm(l)	

[1] Tone2 is sold in two versions, a finished product with an enclosure, and a bare PCBA 'Maker Kit'.

[2] iPhone support requires the USB-C to Lightning OTG (Apple C78-USBH) cable, normal Lightning charging cables will not work.

[3] Coaxial S/PDIF out requires use of a specialised firmware, and a Balanced RCA to Standard RCA converter cable.