



Comparisons between Tone1 and Tone2 Pro

Model	Tone2 Pro	Tone1
Overview	Mini desktop DAC with built-in headphone amplifier	Professional Hi-Fi DAC
Key Features		
DAC	Yes	Yes
Headphone Amplifier	Yes	-
Balanced Audio	Yes	-
MQA	Licensed	-
Linear Power Supply	Support	-
External Bluetooth Module	Support	-
Finish	Enclosure (Anodised Black/Red/Blue)	Bare Board
DAC Performance		
THD+N	0.000126% (-118dB)	0.000337% (-110dB)
SINAD	118dB	110dB
Noise	3.5uVrms (BAL) / 2.0uVrms (UNBAL)	2.6uVrms
SNR	121dB	118dB
DNR	121dB	118dB
Crosstalk, 200KΩ	> 120dB	> 118dB
Output, 200KΩ	4.0 Vrms (BAL) / 2.0 Vrms (UNBAL)	2.2 Vrms
Sampling Rate		
USB Input	PCM 768KHz 32bit DSD 512MHz 1bit (Native)	PCM 384KHz 32bit DSD 256MHz 1bit (Native)
Coaxial Input	192KHz 24bit	192KHz 24bit
Processor		
Processor	XMOS XU216, 16 Logical Cores	XMOS XU208, 8 Logical Cores
Coprocessor		
Coprocessor	STM8S003, Programmable	-
DAC Chipset		
DAC Chipset	ESS ES9038Q2M 32-Bit Stereo DAC	ESS ES9038Q2M 32-Bit Stereo DAC
Amplifier Chipsets		
I/V Stage	2x TI OPA1612	2x RT6862D
LPF Stage	2x TI OPA1612	1x RT6863
Buffer Stage	3x RT6863D	-
Ultralow Noise LDOs		
	1x ESS ES9311Q, 1.3uVrms	5x ADI ADP150, 9uVrms
	5x ADI ADP151, 9uVrms	-
	1x ADI ADP7118, 11uVrms	-
	1x ADI ADP7182, 18uVrms	-
Apple MFi		
Apple MFi	MFi 3.0 [1]	-
Pre-shaping Technology		
Pre-shaping Technology	Altera MAX V CPLD	-
Audiophile Crystal Oscillator		
	Accusilicon AS318-B Series, 45.1584MHz	SiTime 22.5792MHz
	Accusilicon AS318-B Series, 49.1520MHz	SiTime 24.5760MHz
	SiTime 100.0000MHz	SiTime 100.0000MHz
High Precision		
Feedback Resistor	0.1% Film Resistors	0.5% Film Resistors
Bypass Capacitor	5% Film Capacitors	20% Aluminum Electrolytic Capacitors
Decoupling Capacitor	5% COG Ceramic Capacitors	5% COG Ceramic Capacitors
PCB Board		
PCB Board	6 Layers Stackup Tg Rating: 170 °C	4 Layers Stackup Normal

LED (Power)	White, Pink	White
LED (Knob)	RGB Light Ring	-
Knob	Hybrid Digital Volume Control	-
	Rotate/Push Operation	-
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Connectivities		
USB-C Port	USB 2.0	USB 2.0
I2S USB-C Port	I2S, Linear Power Supply	-
Coaxial Input	Yes	Yes
Coaxial Output	Yes [2]	-
Line-out	Balanced RCA	Standard RCA
4.4 Headphone (Balanced)	Yes	-
3.5 Headphone (Unbalanced)	Yes	-
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Compatibility	Windows 7, 8, 10 (ASIO driver required)	Windows 7, 8, 10 (ASIO driver required)
	macOS	macOS
	Linux (with UAC2 compliant kernel)	Linux (with UAC2 compliant kernel)
	Android (supports OTG function)	Android (supports OTG function)
	iPadOS	-
	iOS	-
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Rated Voltage	DC 5V	DC 5V
Power Consumption	620mA (max)	350mA (max)
Size (Board)	12.0mm(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)	

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

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