DragonFly Model Comparison

DragonFly 1.2	DragonFly Black	DragonFly Red
		
IDENTIFICATION		
Black Soft-Touch Finish With Silver Lettering, Protective End-Cap, Leatherette Travel Pouch	Black Soft-Touch Finish With Gold Lettering, Protective End-Cap, Leatherette Travel Pouch	Red Automotive Finish With Gold Lettering, Protective End-Cap, Leatherette Travel Pouch
NATIVE RESOLUTION		
Up to 24-bit / 96kHz	Up to 24-bit / 96kHz	Up to 24-bit / 96kHz
OUTPUT		
1.8 volts Direct-Coupled, High output — Excellent for driving a wide range of headphones, including power-hungry, low-efficiency (~90-95dB/mW) models. In addition, DF 1.2's higher output enables a more dynamic musical presentation, with powerful lows and clean, well-extended highs. When used as a line-level device (volume set to 100%), DF 1.2's 1.8 volts provide enough power to drive all preamplifier, integrated amplifier, or receiver inputs.	1.2 volts Direct-Coupled, Medium output — More than enough power to successfully and gracefully drive a wide range of today's efficient headphones. Although DF Black has a lower output voltage than DF 1.2, its more advanced microcontroller and updated DAC chip mean that it can deliver more musical texture and detail — even when used with moderate-efficiency (~95-100dB/mW) headphones. When used as a line-level device (volume set to 100%), DF Black's 1.2 volts provide enough power to drive all preamplifier, integrated amplifier, or receiver inputs.	2.1 volts Direct-Coupled, High output — With a combination of power, beauty, and finesse, DF Red delivers greater overall impact, momentum, and grip than either DF 1.2 or DF Black, while also surpassing their excellent senses of touch, texture, and nuance. In addition, Red's high (2.1v) output means that it can easily drive the widest range of headphones. When used as a line-level device (volume set to 100%), DF Black's 1.2 volts provide enough power to drive all preamplifier, integrated amplifier, or receiver inputs.
MICROCONTROLLER		
Texas Instruments TAS1020B The TAS1020B (USB 1.0 and 1.1 compliant) was one of the first competent full-speed isochronous USB-controller solutions available for USB audio. At its inception (circa 2002), power consumption was far less of a concern, since the mobile devices of the time were not often used to store and play music.	Microchip PIC32MX The Microchip PIC32MX (USB 2.0 compliant) is a full-speed isochronous USB audio solution. Compared to other controllers, the Microchip microcontroller offers extremely low power consumption (77% lower than the TAS1020b and 95% lower than the most efficient XMOS solution), 32-bit architecture, and the option for software upgradibility (via a desktop application provided by AudioQuest). In addition, the Microchip's ultra-low-noise power supply minimizes the sound-degrading effect of high-frequency interference on the critical audio signal.	Microchip PIC32MX The Microchip PIC32MX (USB 2.0 compliant) is a full-speed isochronous USB audio solution. Compared to other controllers, the Microchip microcontroller offers extremely low power consumption (77% lower than the TAS1020b and 95% lower than the most efficient XMOS solution), 32-bit architecture, and the option for software upgradibility (via a desktop application provided by AudioQuest). In addition, the Microchip's ultra-low-noise power supply minimizes the sound-degrading effect of high-frequency interference on the critical audio signal.
DAC CHIP		
ESS 9023 24-Bit All ESS DAC chips represent outstaning performance and value.	ESS 9010 32-Bit Compared to the ESS 9023, the 32-bit ESS 9010 offers improved overall performance and uses a sophisticated minimum-phase digital filter to provide more naturally detailed and dynamic music.	ESS 9016 32-Bit Like the ESS 9010, the 32-bit ESS 9016 uses a sophisticated minimum-phase digital filter to provide more naturally detailed and dynamic music, but surpasses the 9010 in overall performance.
VOLUME CONTROL		
Analog Volume Control Digitally controlled (from the host) analog volume control. With DF 1.2 connected to a PC, adjusting the system's volume control will, through proxy, control the DF 1.2's onboard volume, ensuring maximum resolution regardless of volume setting.	Analog Volume Control Digitally controlled (from the host) analog volume control. With DF Black connected to a PC or mobile device, adjusting the host's volume control will, through proxy, control the DF Black's onboard volume, ensuring maximum resolution regardless of volume setting.	Digital: 64-Bit Bit-Perfect Volume Control DragonFly Red employs a 64-bit, bit-perfect digital volume control that resides inside the DAC chip itself—an elegant and sophisticated implementation that ensures maximum fidelity, dynamic contrast, and signal-to-noise ratio. With DragonFly Red connected to a PC or mobile device, adjusting the host's system volume control will, through proxy, control the DragonFly Red's onboard volume.
DESKTOP/PC COMPATIBILITY		
Windows 7 / 8.1 / 10; Apple OS X; Linux (no support provided)	Windows 7 / 8.1 / 10; Apple OS X; Linux (no support provided)	Windows 7 / 8.1 / 10; Apple OS X; Linux (no support provided)
MOBILE COMPATIBILITY		
No	Yes: Apple iOS (5 and newer); Android 4.1 and newer* For Android devices, see owner's manual.	Yes: Apple iOS (5 and newer); Android 4.1 and newer* For Android devices, see owner's manual.
SOFTWARE UPGRADABLE		
No	Yes (from desktop application): Please download AudioQuest's Desktop Manager Application and register your product.	Yes (from desktop application): Please download AudioQuest's Desktop Manager Application and register your product.
USB PROTOCOL		
Asynchronous USB Streamlength® Streamlength™ asynchronous USB code ensures low jitter, low resource load, minimal packet errors, world-class audio playback, and reliable connectivity between our DAC and any computing device compliant with USB Host Mode (as set forth by the USB Organization). Streamlength requires no additional drivers, making DF 1.2 virtually plug-and-play for Apple, Windows, iOS, and Android users.	Asynchronous USB Streamlength® Streamlength™ asynchronous USB code ensures low jitter, low resource load, minimal packet errors, world-class audio playback, and reliable connectivity between our DAC and any computing device compliant with USB Host Mode (as set forth by the USB Organization). Streamlength requires no additional drivers, making DragonFly Black virtually plug-and-play for Apple, Windows, iOS, and Android users.	Asynchronous USB Streamlength® Streamlength™ asynchronous USB code ensures low jitter, low resource load, minimal packet errors, world-class audio playback, and reliable connectivity between our DAC and any computing device compliant with USB Host Mode (as set forth by the USB Organization). Streamlength requires no additional drivers, making DragonFly Red virtually plug-and-play for Apple, Windows, iOS, and Android users.
DIMENSIONS		
12mm (h) x 19mm (w) x 62mm (l)	12mm (h) x 19mm (w) x 62mm (l)	12mm (h) x 19mm (w) x 62mm (l)