

FiiO QX13 Specifications

General Specifications

- **Name/Model:** QX13
 - **Hardware Solution:** DAC: ES9027SPRO ×1, USB Decoding: XMOS XU316, Amplifier: INA1620 ×4
 - **Color:** Black (Carbon Fiber) / Titanium Gold (Aluminum Alloy)
 - **Weight:** ~33.7g (Carbon Fiber) / ~39.2g (Aluminum Alloy)
 - **Dimensions:** ~64.2 × 30.7 × 13mm
 - **Volume Control:** Physical Buttons
 - **Display:** 1.99" LCD (170 × 320)
 - **Recommended Headphone Impedance:**
 - PO: 8–350Ω
 - BAL: 8–350Ω
 - **Gain Settings:** High / Low
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Buttons and Ports

- **Buttons:** Volume Up ×1, Volume Down ×1, Play/Pause ×1
 - **USB Ports:**
 - Type-C USB 2.0 (Power/Data)
 - Type-C USB POWER IN (Orange, for Power Supply/OTA Upgrades)
 - **Slide Switch:** Desktop Mode Switch ×1
 - **Balanced Output Port:** 4.4mm
 - **Headphone Output Port:** 3.5mm
 - **Coaxial Output Port:** 3.5mm (Shared with PO)
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Special Functions

- **Desktop Mode:** Supported
- **Status Display:** Format, Volume Level, Gain, USB Mode, Sampling Rate, etc.
- **EQ Adjustment:**
 - 10-Band Dynamic EQ (±12dB)
 - 8 Built-in Presets + User Customization
- **MQA Support:** Full Decoding
- **Screen Rotation:** Supported
- **Charging Support:** Supports charging FiiO ESTICK via POWER IN port
- **Max Supported Sampling Rates:**

- USB DAC: 768kHz/32bit PCM, DSD512 (Native)
 - Coaxial Output: Up to 96kHz/24bit
 - **Firmware Upgrade:** USB-OTA Supported
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Power Supply

- **Input Requirement:** DC 5V $\geq$ 1A
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Audio Performance

3.5mm Output (USB Decoding, Desktop Mode, High Gain)

- **Output Power:**
 - 440mW+440mW (16 Ω)
 - 310mW+310mW (32 Ω)
 - 40mW+40mW (300 Ω)
- **Output Impedance:** <1 Ω
- **Crosstalk:** $\geq$ 77dB
- **SNR:** $\geq$ 124dB (A-weighted)
- **THD+N:** <0.0004% (1kHz, -2dB @32 Ω)
- **Peak Output Voltage:** 9.8Vp-p
- **Noise Floor:** <2 μ V (A-weighted)
- **Frequency Response:**
 - 20Hz–90kHz: <2.8dB attenuation
 - 20Hz–20kHz: <0.07dB attenuation

4.4mm Output (USB Decoding, Desktop Mode, High Gain)

- **Output Power:**
 - 480mW+480mW (16 Ω)
 - 900mW+900mW (32 Ω)
 - 125mW+125mW (300 Ω)
- **Output Impedance:** <1.5 Ω
- **Crosstalk:** $\geq$ 113dB
- **SNR:** $\geq$ 124dB (A-weighted)
- **THD+N:** <0.0006% (1kHz, -8dB @32 Ω)
- **Peak Output Voltage:** 17.5Vp-p
- **Noise Floor:** <3.4 μ V (A-weighted)
- **Frequency Response:**
 - 20Hz–70kHz: <2.8dB attenuation
 - 20Hz–20kHz: <0.07dB attenuation

3.5mm Output (USB Decoding, Non-Desktop Mode, High Gain)

- **Output Power:**
 - 370mW+370mW (16Ω)
 - 250mW+250mW (32Ω)
 - 30mW+30mW (300Ω)
- **Output Impedance:** <1Ω
- **Crosstalk:** ≥75dB
- **SNR:** ≥123dB (A-weighted)
- **THD+N:** <0.0004% (1kHz, -2dB @32Ω)
- **Peak Output Voltage:** 8.7Vp-p
- **Noise Floor:** <2μV (A-weighted)
- **Frequency Response:**
 - 20Hz–90kHz: <2.8dB attenuation
 - 20Hz–20kHz: <0.07dB attenuation

4.4mm Output (USB Decoding, Non-Desktop Mode, High Gain)

- **Output Power:**
 - 470mW+470mW (16Ω)
 - 605mW+605mW (32Ω)
 - 70mW+70mW (300Ω)
- **Output Impedance:** <1.5Ω
- **Crosstalk:** ≥113dB
- **SNR:** ≥122dB (A-weighted)
- **THD+N:** <0.0006% (1kHz, -6dB @32Ω)
- **Peak Output Voltage:** 13Vp-p
- **Noise Floor:** <3.5μV (A-weighted)
- **Frequency Response:**
 - 20Hz–90kHz: <2.8dB attenuation
 - 20Hz–20kHz: <0.07dB attenuation