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Transfr and Pico Neo 3

Spec Sheet

January 2023

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Transfr Specifications

Ports:

- 443
- 80

Must be able to communicate with:

- https://backend.transfrvr.com
- https://func.transfrvr.com

Pico Neo 3 VR Standalone Headset Specification Sheet

Compute Platform	**CPU**	Qualcomm XR2, Kryo 585, 8 Cores 64 bit （4 x A77, 4 x A55, 2.84GHz, 7nm
	GPU	Adreno 650, 587MHz
	RAM	6GB LPDDR4X, 2133MHz
	ROM	256GB, UFS 3.0
	Wi-Fi	Wi-Fi 6, 2 × 2 MIMO, 802.11 a/b/g/n/ac/ax, 2.4GHz/5GHz Dual band, Support Miracast and Wireless streaming PC Steam VR games
	Bluetooth	5.1+ HS
	OS	Android 10
	SDK	Pico SDK
Display	**Display**	Single 5.5 inch SFR TFT
	Resolution	Almost 4K Resolution, 3664 × 1920, PPI: 773
	Refresh Rate	72Hz / 90Hz (Future extension: 120Hz)

Standalone Headset Specs Continued On Next Page

Optics	**FOV**	98°
	Lens Material	Fresel, PMMA
	Eye Protection	TUV low blue light certificated, selectable in settings
	Myopia Adjustment	No physical adjustment, glasses compatible
	IPD Adjustment	Default: 63.5mm, Three physical positions: 58/63.5/69mm, Range: 54-73mm
Sensor	**Headset 9 axis sensor**	1KHz sample rate
	Headset P-Sensor	Wearing detection for screen sleep power saving
Camera	**Environment Camera**	Fish-eye monochrome (640 × 480 @120Hz) × 4, FOV: 166°
Eye Tracking	**Eye Tracking Camera**	Tobii Eye Tracking has been completely optimized to boost the Pico Neo 3 Pro Eye's capabilities on the latest Qualcomm XR2 platform. Through this technology, the Pro Eye is designed to deliver exceptional insights into more high-demanding use cases across key verticals such as brain healthcare, training, simulation, and design.

Standalone Headset Specs Continued On Next Page

Interaction	**Headset**	Totally new in-house, inside-out room scale tracking with millimeter-level tracking algorithm (more stable and more robust for complicated user home environments; improved tracking accuracy; faster safety area recovery); guardian system (larger range to support 10m × 10m); more realistic stereo vision, improved natural and smooth see-through feature; Up to 5 recordable play areas with faster recovery speed
	Controller	6DoF motion contoller × 2, within 1.2m from combination of Headset camera FOV: H238° V195°
	Hands Gesture	28 DoF Tracking, supports 5 kinds of Gesture (Q3/2021)
	Voice	Dual Mic noise reduction and echo cancellation
	Headset Keys	Power APP （Back) / Confirm / Home / Volume Up / Volume Down
Design and Ergonomics	**Weight**	Without Headstraps: 4xxg ; Total: 6x0g
	Straps	Adaptive top strap adjustment, easy and fast to wear
		Hard headband rotates so user can fit glasses with ease and adjust with a single hand
	Face Cushion	Replaceble 3D PU sterilizable face cushion, antifouling and washable
	Thermal	Includes silent cooling fan, breathable air flow designed to reduce fogging

Standalone Headset Specs Continued On Next Page

Design and Ergonomics Continued	**Ergonomics**	Reasonable front HMD and rear battery pack ergonomics design, more comfortable face experience; compatible with adults and kids, Asian, European, and American headsize
	Light Shield Nose Pad	N/A
	Glasses Spacer	N/A
Power	**Charging**	Qualcomm Quick Charge QC 3.0, USB PD 3.0
	Battery Capacity	5300mAh, 2.5-3h (Video playing 3h, Game 2.5h)
	3.5 mm DC Jack	N/A
Audio	**Speaker**	360° surrounding stereo speakers, supports 3D spatial effects, audio lower to 600Hz
	Microphone	Omnidirectional dual microphone, up to 30dB environment noise reduction, and 50dB echo cancellation for clear voice application
Interface	**USB-C Type - C 3.0**	USB 3.0 (Requires USB 3.0 data cable, bundle is USB 2.0 data cable)
		5V/1A OTG extendable power supply
		USB 3.0 OTG extendable (Requires adaptor cable)
		DP Output feature (Support USB DP to HDMI convertor to connect and show VR content on Display or TV)

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Interface Continued	**3.5mm Audio Jack**	Support 3rd party stereo headphone, compatible with American and European standard audio jack
	Micro - SD	N/A
	Customized DP Interface (USB Type-C Like)	Optional Customized 5 meters long DP 1.3 Cable connect VR headset to PC to experience native 4K@90Hz Stream VR contents
LED	**LED Indicator**	Three color LED to indicate power on/off and charging status
Controller	**Tracking Technology**	Infrared
	Tracking Accuracy	< 10mm (Within 1.2m from headset)
	Tracking Latency	< 20ms
	Sensor	Infrared sensors, 6 axis sensors (Gyroscope Accelerator)
	Bluetooth	5.1
	LNA Motor	Up to 1G vibration linear motors
	Keys	Joystick / Trigger / Grip / APP (Back) / Home/ X/Y (Left hand) / A/B (Right hand)
	LED Indicator	Three color LED to indicate power on/off and pairing status
	Battery	Two AA dry batteries, up to 100h battery life
	Battery Cover	Accessory extendable via battery case connector pins
	Lanyard	Bundle
	Weight	157g (Includes bundle battery)

PICO Neo3 Wi-Fi protocols

Supported protocols:

- Open
- WEP
- WPA/WPA2-Personal
- WPA/WPA2/WPA3-Enterprise
- Enhanced open
- WPA3-Personal
- WPA3-Enterprise 192bit mode

Details:

- WPA/WPA2/WPA3-Enterprise

EAP method (Phase 1)	Phase 2 Method
PEAP	MSCHAPv2
	GTC
TLS	
TTLS	PAP
	MSCHAP
	MSCHAPv2
	GTC
PWD	

- WPA/WPA2/WPA3-Enterprise

EAP method (Phase 1)	Phase 2 Method
TLS	

Pico DP Cable

Experience high-definition audio and video synchronization via the Display Port on the Neo 3 Pro and Pro Eye by connecting to your PC with the Pico DP cable. This cable supports up to 3664*1920 @90Hz to ensure your customers will have a smooth, ultra-low latency experience when tethered to a PC.The DP cable connects securely to the Neo 3 Pro or Pro Eye through a customized USB Type-C screw design to ensure a secure connection at all times. The cable is also axed to the headset strap via a special connector for added cable management and comfort. Through the standard DC5.5mm interface external power supply you will also have uninterrupted power for your Pico headset for extended sessions.

Model	E3B1P
Input	DisplayPort + USB2.0A + DC5.5 Female
Output	Customized USB Type C DP
Resolution	Max 3664 x 1920 @ 90HZ Hot Plug & Play detection Supports DP1.4 and USB 2.0
USB 2. OA Power	5V, Max 2.5V
Dc5.5 Power	5V~12V, Max 24W
Cable Material	Active Optical