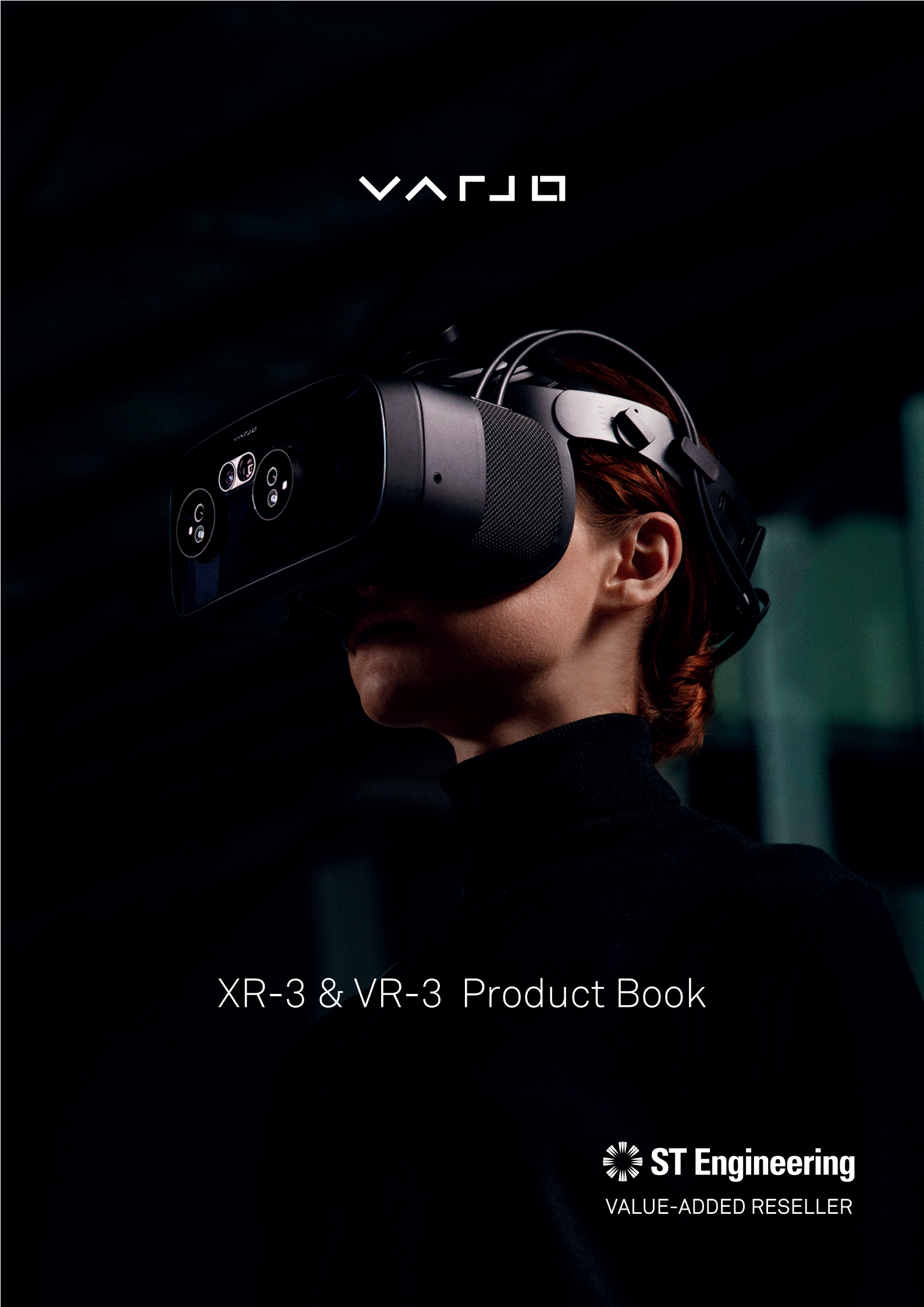
VARJO



XR-3 & VR-3 Product Book

ST Engineering

VALUE-ADDED RESELLER

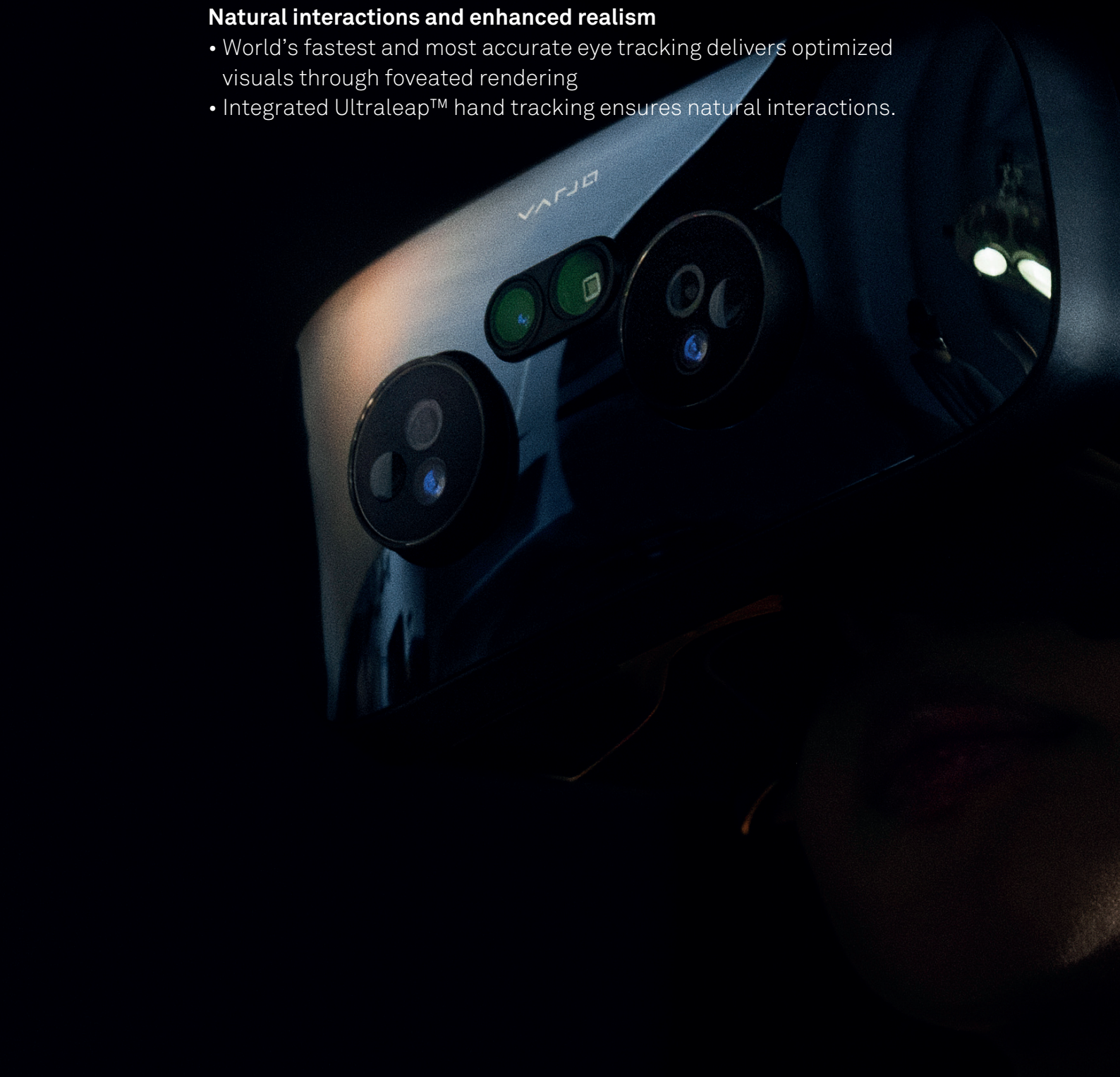
Varjo XR-3 and Varjo VR-3 unlock new professional applications and make photorealistic mixed reality and virtual reality more accessible than ever, allowing professionals to see clearer, perform better and learn faster.

See everything – from the big picture to the smallest detail

- 115° field of view
- Human-eye resolution at over 70 pixels per degree
- Color accuracy that mirrors the real world

Natural interactions and enhanced realism

- World's fastest and most accurate eye tracking delivers optimized visuals through foveated rendering
- Integrated Ultraleap™ hand tracking ensures natural interactions.



Wearable for hours on end

- Improved comfort with 3-point precision fit headband, 40% lighter weight, and active cooling
- Automatic IPD and sophisticated optical design reduce eye strain and simulator sickness

Complete software compatibility

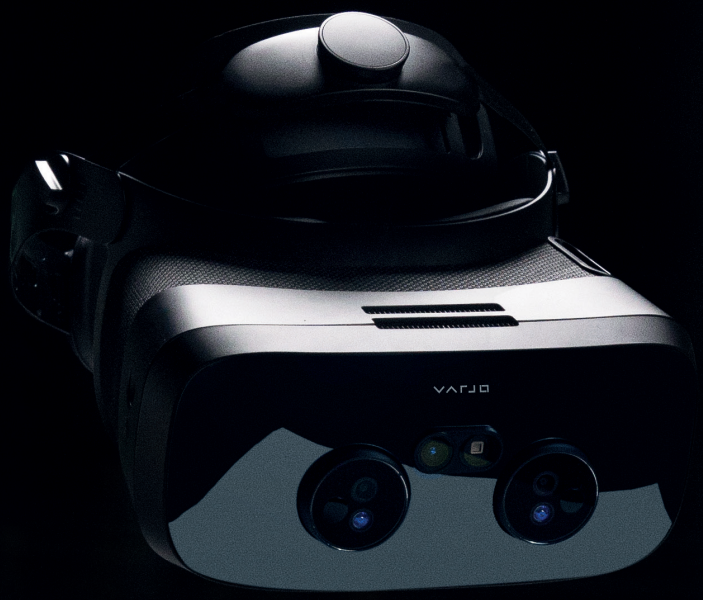
Unity™, Unreal Engine™, OpenXR 1.0 (early 2021) and a broad range of professional 3D software, including Autodesk VRED™, Lockheed Martin Prepar3d™, VBS BlueIG™ and FlightSafety Vital™

"Varjo has pushed the boundaries of high-resolution mixed reality for professionals across various industries."

AC MAHENDRAN – Director, XR, Unity

Varjo XR-3: The only photorealistic mixed reality headset.

Varjo XR-3 delivers the most immersive mixed reality experience ever constructed, featuring photorealistic visual fidelity across the widest field of view (115°) of any XR headset. And with depth awareness, real and virtual elements blend together naturally.



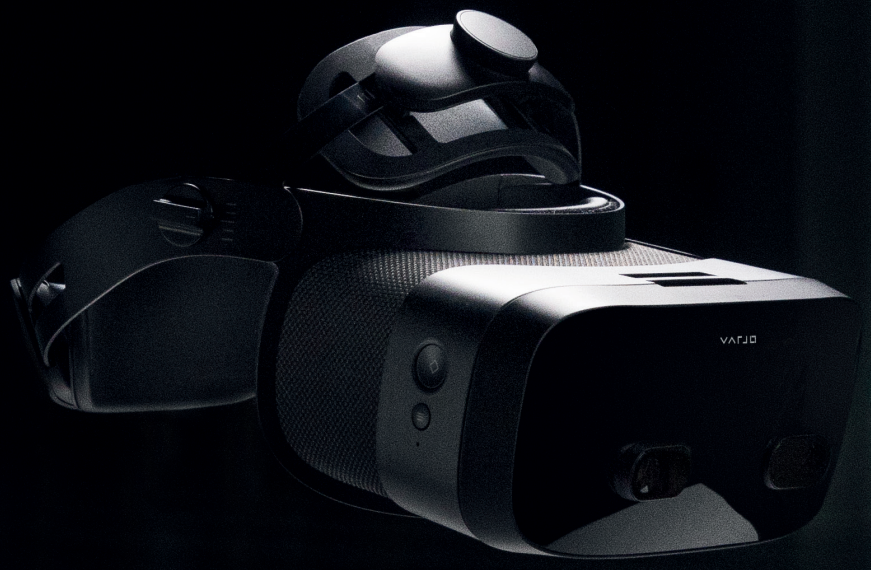
LiDAR and stereo RGB video pass-through deliver seamless merging of real and virtual for perfect occlusions and full 3D world reconstruction.

Inside-out tracking vastly improves tracking accuracy and removes the need for SteamVR™ base stations.

*Device and a valid subscription (or offline unlock license) are both required for using XR-3

Varjo VR-3: Highest-fidelity VR. Tailor-made for professionals.

Varjo VR-3 sets a new standard for naturally immersive computing with the industry's highest resolution (over 70 ppd) across the widest field of view (115°). By powering true-to-life virtual reality experiences, VR-3 enables a deeper level of focus in your daily workflow.



VR-3 and XR-3 feature the world's fastest and most accurate eye tracking at up to 200 Hz, giving users optimized visual fidelity through foveated rendering and enabling analysis of even the smallest eye movements.

Ultraleap hand tracking precisely captures natural hand movements, ensuring deeper immersion and natural interactions.

*Device and a valid subscription (or offline unlock license) are both required for using VR-3

Technical specifications

	VARJO XR-3	VARJO VR-3
Display & Resolution	Full Frame Bionic Display with human-eye resolution. Focus area (27° x 27°) at 70 PPD uOLED, 1920 x 1920 px per eye Peripheral area at over 30 PPD LCD, 2880 x 2720 px per eye Colors: 99% sRGB, 93% DCI-P3	Full Frame Bionic Display with human-eye resolution. Focus area (27° x 27°) at 70 PPD uOLED, 1920 x 1920 px per eye Peripheral area at over 30 PPD LCD, 2880 x 2720 px per eye Colors: 99% sRGB, 93% DCI-P3
Field of View	Horizontal 115°	Horizontal 115°
Refresh rate	90 Hz	90 Hz
Hand tracking Comfort &	Ultraleap Gemini (v5)	Ultraleap Gemini (v5)
Wearability	3-point precision fit headband Replaceable, easy-to-clean polyurethane face cushions Automatic IPD 59-71mm	3-point precision fit headband Replaceable, easy-to-clean polyurethane face cushions Automatic IPD 59-71mm
Weight	594 g + headband 386 g	558g + headband 386 g
Connectivity	Two headset adapters in-box Two USB-C cables (5 m) in-box PC Connections: 2 x DisplayPort and 2 x USB-A 3.0+	Two headset adapters in-box Two USB-C cables (5 m) in-box PC Connections: 2 x DisplayPort and 2 x USB-A 3.0+
Positional Tracking	SteamVR™ 2.0 (recommended) or 1.0 tracking system Varjo inside-out tracking utilizing RGB video pass-through cameras	SteamVR™ 2.0 (recommended) or 1.0 tracking system
Eye tracking	200 Hz with sub-degree accuracy; 1-dot calibration for foveated rendering	200 Hz with sub-degree accuracy; 1-dot calibration for foveated rendering
Audio	3.5mm audio jack with microphone support	3.5mm audio jack with microphone support
Mixed reality	Ultra-low latency, dual 12-megapixel video pass-through at 90 Hz	Not available on VR-3
XR Depth	LiDAR + RGB fusion, 40 cm–5 m operating range	Not available on VR-3

Recommended hardware

Component	Recommended	Minimum
Processor	Premium 8-core CPU or higher For example: Intel Core i9-9900K Intel Xeon W-2245 8-core AMD Ryzen 7 3700X	8-core CPU For example: Intel Core i7-7700k AMD Ryzen 7 2700X
GPU	NVIDIA GeForce RTX 3080 NVIDIA RTX A6000	NVIDIA GeForce RTX 3070 NVIDIA GeForce RTX 2080 Ti NVIDIA RTX 6000
Memory	32 GB	
Storage space	2 GB	
Video output	2 x DisplayPort 1.4	
USB connectivity	2 x USB-A 3.0 / 3.1	
Operating system	Windows 10 (64-bit)	

Support for industry-leading 3D platforms and software

AUTODESK VRED PROFESSIONAL · FlightSafety international · VBS BLUE IG · unity · UNREAL ENGINE · PREPAR3D · OpenXR

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