

# CATALOGUE - EQUIPMENT AND SPECIFICATIONS



MIXR - EQUIPMENT AND SPECIFICATIONS VIRTUAL PRODUCTION 03

# **MIXR CATALOGUE**

THIS CATALOGUE CONTAINS PRESENTATIONS AND SPECIFIKATIONS OF MODEL, HARDWARE AND SOFTWARE

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MADE FOR MIXR'S TECHNOLOGY 2022

LAYOUT RIKKE HEDEGAARD THOMSEN

BORROWED TEXT | CREDIT TO DESIGN | CLARA STENFELDT

# **LED WALL**



### INFO

FOR VIRTUAL PRODUCTIONS

3 x 5 m led wall

#### **DISPLAY**

LED wall 15 sqm – L 5 m, H 3m Pixel pitch 2,5 meters Room Measurements: L 10,7 m, B 7,4 m, H 5,8 m (LED wall takes apx. 2 m of the lenght)



Video processer: Novastar (MCTRL4K)
Possible to use with or without cameratracking.
It is possible to borrow Antilatency floor tracking solution or
HTC VIVE MARS CAMTRACKER

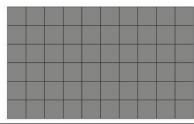
For more reading go to: https://www.absen-europe.com/virtual-studio/



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#### **Screen Configuration**



Single Panel Information				
Product Model	PL2.5 Pro	Dimensions (w x h x d) (mm)	500x500x87	
Resolution (w x h)	200x200	# of modules	4	
Weight (kg/per pcs)	9.6	Cabinet Material	Die Casting Aluminum	

Display Information				
Display	Width	Height	Total	
# of panels(pcs)	10	6	60	
Display area ( m )	5.000	3.000	15.000	
Display Resolution(px)	2000	1200	2400000	

Other Spec				
Aspect Ratio (W:H)	1.667 : 1	Diagonal	5.83 m	
Weight(Kg/Lbs)	576.00	Heat load(BTU/HR)	27637.200	
Max # of data cascading	14	# of data ports required	5	
Max # of power cascading	3pcs per outlet@220V/16A	# of AC outlets required	20 @220V/16A outlet	
Avg Power/W	2700	Max Power/W	8100	
Sending box model	MCTRL4K	# of sending box	1	

<sup>\*</sup>Note: Information listed here for reference and estimation only. For data, power requirement and the sending box, etc., please contact Absen for confirmation and more details.

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# **DISPLAY CONTROLLER**



#### INFO

FOR VIRTUAL PRODUCTION
NOVAMCTRL4K led wall display controller

#### **FEATURES**

Complete video input interfaces: DP1.2 x 1, HDMI2.0 x 1, dual-link DVI x 2 Supports 16-channel Neutrik gigabit ethernet outputs and 4-optical ports Supports two operating modes during dual-link DVI input: mosaic and multi-card Screen configuration can be done at any time without PC Manual adjustment of screen brightness Multiple controllers are able to be cascaded for uniform control

#### **INPUTS**

DP 1.2 interface, with a maximum resolution of  $4096 \times 2160@60$ Hz and minimum resolution of  $640 \times 480@24$ Hz

HDMI 2.0 interface, with a maximum resolution of 4096x2160@60Hz and minimum resolution of  $800 \times 600$ @30Hz

DUAL DVI-D1/D2 interface, each with a maximum resolution of  $3840 \times 1080 @ 60$ Hz and minimum resolution of  $800 \times 600 @ 30$ Hz

# Outputs

1-16

16 Neutrik (NE8FBH) Gigabit Ethernet ports Maximum loading capacity of a single Ethernet port:

For 8-bit input sources: 650,000 pixels

For 10-bit/12-bit input sources: 320,000 pixels

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# PC



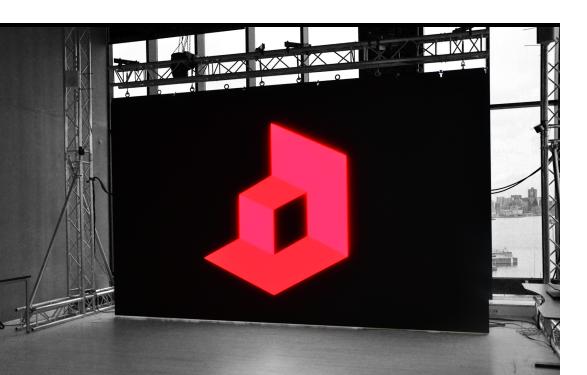
#### **INFO**

#### FOR VIRTUAL PRODUCTION

Screen & desk

#### **WORKSTATION**

HP Z2 TWR G9 – 700W Workstation
Intel Core i9-12900K, 128GB (4x32GB) DDR5 4800 UDMIMM ECC Mem, 2TB PCIe 4x4 2280 Turbo M.2 SSD, NVIDIA RTX A5000 24 GB DH Blower Fan 4DP PCIe x16 Graphics, HP USB Mus & Keyboard, Pro 64 High End HP Z Turbo 2TB PCIe-4x4 2280 TLC M.2 2nd SSD
And Blackmagic Decklink Pro 8K PCie



# **VIVE PRO 2**



### INFO

FOR VIRTUAL REALITY

4 x Vive Pro headset in 5K



#### **VIVE PRO 2 HEADSET**

Basestation 2.0 Controller (L) + (R)All-in-one cable Cleaning cloth Earphone hole cap x 2 Link box (2.0) USB 3.0 cable DisplayPort cable Mini DP to DP Adapter Link box power adapter Controller (2018) w. lanyard Micro-USB cable x 2 Power adapter x 2 Base station 2.0 x 2 Base station power adapter Mounting kit Documentation (QSG / Safety Guide / Warranty / IPD Guide / Wall Mount Installation Guide / VIVE Logo Sticker

#### **BRIEF HIGHLIGHTS**

- 1. Immerse yourself in nextgen visuals with industryleading 5K resolution, wide 120° field of view, and an ultra-smooth 120Hz refresh rate.
- 2. Feel fully immersed with the equipped Hi-Res Certified headphones.
- 3. Experience best in class tracking performance and comfort.

#### **SCREEN**

Dual RGB low persistence LCD. Resolution: 2448 x 2448 pixels per eye (4896 x 2448 pixels combined) Refresh Rate: 90/120 Hz (only 90Hz supported via VIVE Wireless Adapter) Field of view: Up to 120°

#### AUDIO

Hi-Res certified headset (via USB-C analog signal) Hi-Res certified headphones (removable) High impedance headphones support (via USB-C analog signal)

#### **INPUTS**

Integrated dual microphones Connections Bluetooth, USB-C port for peripherals

#### **SENSORS**

G-sensor, gyroscope, proximity, IPD sensor, SteamVR Tracking V2.0 (compatible with SteamVR 1.0 and 2.0 base stations)

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#### **ERGONOMICS**

Eye relief with lens distance adjustment

Adjustable IPD 57-70mm, headphones and head strap

Controller Specs

Sensors

SteamVR Tracking 2.0

Input

Multifunction trackpad

Grip buttons

dual-stage trigger

System button, Menu button

Use per charge - Approx. 6 hours

Connections

Micro-USB charging port

Tracked Area Requirements

Standing/seated

No min. space requirements

Room-scale: Up to 10m x 10m using four SteamVR Base Station 2.0.

The included two base stations support up to 5m x 5m.

#### MINIMUM COMPUTER SPECS

Processor: Intel Core i5-4590 or AMD Ryzen 1500 equivalent or greater

Graphics: NVIDIA GeForce GTX 1060 or AMD Radeon RX 480 equivalent or greater.

\*GeForce RTX 20 Series (Turing) or AMD Radeon 5000 (Navi)

Memory: 8 GB RAM or more

Video out: DisplayPort 1.2 or higher

\*DisplayPort 1.4 or higher with DSC is required for Full Resolution mode.

USB ports: 1x USB 3.0 or newer

Operating system: Windows 11 / Windows 10

# **VARJO AERO**



#### INFO

FOR VIRTUAL REALITY

1 x Varjo Aero headset (very high quality)

#### **DISPLAYS**

Dual Mini LED LCD; 2880 x 2720 px per eye

Brightness: Calibrated to 150 NIT

Colors: Calibrated with coverage of

99% sRGB, 95% DCI-P3

Refresh rate: 90 Hz



### **OPTICS**

Custom-made variable resolution aspheric lenses with 35 PPD peak fidelity Edge-to-edge clarity; no reflections, no ghost rays

#### **FIELD OF VIEW**

Horizontal: 115° I Diagonal: 134° at 12 mm eye relief

# INTERPUPILLARY DISTANCE (IPD)

Automatic IPD adjustment with motor Supported IPD range: 57–73 mm

#### **AUDIO**

3.5 mm audio jack In-ear headphones with mic in-box

#### **WEIGHT**

487 g + headband 230 g (including counterweight)

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AUGMENTED REALITY

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#### **DIMENSIONS**

Width 200 mm, height 170 mm, length 300 mm

#### CONNECTIVITY

Headset adapter and USB-C cable (5-metre) in-box PC connections: DisplayPort and USB-A 3.0

#### **POSITIONAL TRACKING**

SteamVR 2.0/1.0

#### **EYE TRACKING**

200 Hz with sub-degree accuracy; 1-dot calibration for foveated rendering

# **COMFORT & AMP; WEARABILITY**

3-point precision fit headband Replaceable, easy-to-clean polyurethane face cushions Active cooling

#### **PROCESSOR**

4-core CPU

For example; Intel Core i5-4590, Intel Xeon E5-1620, AMD Ryzen 5 1500X equivalent or better

#### **COMPONENT**

Memory 8 GB
Storage space 2 GB
Video output 1 x DisplayPort 1.4
USB connectivity 1 x USB-A 3.0 / 3.1
Operating system Windows 10 (64-bit), Windows 11 (64-bit)

# **HOLOLENS 2**



#### **INFO**

FOR AUGMENTED REALITY

2 x Hololens 2 smart glasses headset

#### **DISPLAY**

Optics: See-through holographic lenses (waveguides)

Resolution: 2k 3:2 light engines

Holographic density: >2.5k radiants (light points per radian) Eye-based rendering: Display optimization for 3D eye position

#### **SENSORS**

Head tracking: 4 visible light cameras

Eye tracking: 2 IR cameras

Depth: 1-MP Time-of-Flight depth sensor

IMU: Accelerometer, gyroscope, magnetometer

Camera: 8-MP stills, 1080p30 video

#### **AUDIO AND SPEECH**

Microphone array: 5 channels Speakers: Built-in spatial sound

#### **HUMAN UNDERSTANDING**

Hand tracking: Two-handed fully articulated model

Eye tracking: Real-time tracking

Voice: Command and control on-device; natural language with internet connectivity Windows Hello: Enterprise-grade security with iris recognition

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#### **ENVIRONMENT UNDERSTANDING**

6DoF tracking: World-scale positional tracking Spatial Mapping: Real-time environment mesh Mixed Reality: Capture Mixed hologram and physical environment photos and videos

#### **COMPUTE AND CONNECTIVITY**

SoC: Qualcomm Snapdragon 850 Compute Platform

HPU: Second-generation custom-built

holographic processing unit

Memory: 4-GB LPDDR4x system DRAM

Storage:64-GB UFS 2.1

WiFi: 802.11ac 2x2

Bluetooth 5.0

USB Type-C

#### FIT

Single size

Fits over glasses

Weight 566g

#### **SOFTWARE**

Windows Holographic Operating System Microsoft Edge Dynamics 365 Remote Assist & Guides 3D Viewer

### **POWER**

Battery life: 2–3 hours of active use Charging: USB-PD for fast charging

# **ROKOKO SMARTSUITE PRO II**



#### **INFO**

FOR MOTION CAPTURE

3 x Motion Capture suits small, medium and large

1 x Motion Capture gloves + headband

#### **TEXTILE**

The textiles are a unisex design

They are made of a high performance and very durable, nylon based fabric.

Adjustable tightening straps to make it fit all body types. Seamlessly integrated tunnels to protect all electronics parts.

With YKK zippers.

Empower movements, yet very comfortable

#### **SENSORS**

9-DoF IMU motion sensors connected to a hub, pre-installed in a textile suit

3D orientation accuracy: ± 1 deg

#### HUB

The hub is placed on the back of the suit and its main job is to collect all the tracking data from the sensors, fusion it and live stream it to Rokoko Studio over WiFi.

#### **BATTERY & POWER**

The suit is powered by an external power bank, see our recommendations here, you connect the suit via the USB power cables included in the box.



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# **CONNECTIVITY (WIFI)**

2,4 & 5 Ghz - 802.11ac Wi Fi wireless networking

Frame rate: 200fps

Latency: approx. 15 ms latency on a standard WiFi router

Range: Up to 100 m

#### IN THE BOX

Up to 19 x Sensors

A Smartsuit Pro II textile with pre-installed motion sensors connected to a hub.

A power cable.

One waterproof suit cover.

### **SOFTWARE & PLUGINS**

Rokoko Studio: an easy-to-use live motion capture recording software.

Plugin integrations for real-time data streaming are available:

UNREAL	HOUDINI	UNITY	CATOON ANIMATOR 4
BLENDER	ICLONE 7	MAYA	
MOBU	SIEMENS JACK	CINEMA 4D	MOTION- BUILDER

#### **MAINTENANCE**

The electronic parts can easily be removed from the Smartsuit Pro II, so you can wash the textile in a machine.



# **MATTERPORT PRO2**



### INFO

FOR 3D SCANNING
Matterport camera in 4k

#### **3D SENSING**

Structured light (infrared) 3D sensor 20 seconds capture time per scan/sweep 99% accurate within range 15 ft (4.5 m) maximum range 3D Data Registration: Automatic Depth Resolution: 10 points per degree

#### **CONSTRUCTION**

Durable texture black plastic enclosure Manufactured in USA

Size: 9.0" H, 10.25" W, 4.38" D (230 x 260 x 110 mm)

Weight: 7.5 lb (3.4 kg)

Color: Black



#### **PHOTOGRAPHY**

Output Pano Pixels: 134.2 MP, equirectangular

Export images up to 8092px x 4552px

Lens: 4K Full Glass

White Balancing: Automatic full-model 360° (left-right) x 300° (vertical) field of view

### DATA

WiFi to transfer data from camera to iOS device through the Capture app WiFi 802.11 n/ac 5 Ghz Includes a GPS

#### **BATTERY**

Lithium ion battery
Can scan for 8 hours on one charge
4.5 hour charge time



# RAZOR BLADE PRO



# INFO

FOR VR, MoCap & 3D

4 x Razor Blade Pro laptops 17" (2021)

#### **SYSTEM**

Windows 10 Home 64-bit Edition Theft/Intrusion Protection

#### **PROCESSOR**

Manufacturer: Intel

CPU-Type: Core i9

Processor generation: 11

Processor number.: I9-11900H

Clock-frequence: 2.5 GHz Max Turbo Speed: 4.9 GHz Number of Cores: 8 Cores

Functions: Intel Turbo Boost Technology

# **RAM**

Installed memory: 32 GB
Technology: DDR4 SDRAM

Memory frequence: 3,200 MHz

## **HARD DISC**

Type: SSD

Storage Capacity (built in): 1000 GB

Interface: PCIe

Hard disc-qualities: NVM Express (NVMe)



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#### **CARD READER**

Type: Card reader

Supported flash memory: SDXC UHS-III Memory Card

### **DISPLAY**

Diagonal size (metric): 43.9 cm

Screen type: LED Screen size: 17.3 " Widescreen: Yes

Resolution: 3840 x 2160 Image clarity: 300 cd/mm Update frequency: 120 Hz

Monitor Features: 100% sRGB color spectrum, 6 mm edge

Factory Calibration

#### **VIDEO OUTPUT**

Discrete graphics processor: Yes

Graphics processor: NVIDIA GeForce RTX 3080 Graphics processor-serie: NVIDIA GeForce RTX

Technology: GDDR6 SDRAM

Digital Camera: Possible to use as webcam?

Resolution: 720p

Sound outpit Type: Stereo speakers Audio Input Type: Array-microphone

Input equipment Type: Keyboard, Touchpad

Backlight: Yes (RGB)

Features: Anti-ghosting, Glass touchpad, Per key RGB,

Precision touchpad, Razer Chroma RGB, Razer Synapse 3 enabled

#### **NETWORK**

Data connection protocol: 2.5 Gigabit Ethernet, Bluetooth 5.2, Ethernet, Fast Ethernet, Gigabit Ethernet, IEEE 802.11a, IEEE 802.11ac, IEEE 802.11ax (Wi-Fi 6),

IEEE 802.11b, IEEE 802.11g, IEEE 802.11n

Wireless protocol: 802.11a/b/g/n/ac/ax, Bluetooth 5.2

Wired protocol: 2.5 Gigabit Ethernet Wireless NIC: Intel Wi-Fi 6E AX 210

Mobile broadband

Holders

M.2 (PCI Express / SATA) (1 free)

Battery Cells: 2 cells

Battery capacity: 70.5 W·h

Power unit: 230 W

#### **INTERFACER**

3 x USB 3.2 Gen 2, HDMI, Combo jack for headphone/microphone,

LAN, USB-C (supports Thunderbolt 3), USB-C 3.2 Gen 2

**USB-C** functions

**USB** Power Delivery

2 USB-C ports

3 USB ports

1 HDMI-ports

#### **MEASURE AND WEIGHT**

Width: 39.5 cm Depth: 26 cm Height: 1.99 cm

Weight from: 2.75 kg

# IPAD PRO



### **INFO**

FOR MIXED REALITY & 3D SCAN

4 x Apple tablets 12,9" (2021) for MR & 3D (apps)

#### **SCREEN**

Liquid Retina XDR screen footnote2 Liquid Retina display footnote2 ProMotion technology

#### **INSIGHT**

Apple softwear
M1 chip
12 MP wide-angle and 10 MP
ultra-wide-angle cameras on the back
TrueDepth camera on the front with In focus function
USB-C connector which supports
Thunderbolt/USB 4

#### **WORKS WITH**

Apple Pencil (2nd generation) Magic Keyboard Smart Keyboard Folio

5G mobile connectivity3

#### **APPS**

E.g. Polycam, Matterport, Rokoko Remote & Face Capture, Live Link etc

# **IPHONE SE**



### INFO

FOR MIXED REALITY & 3D SCAN

4 x Smartphones 4,7" (2018) for MR & 3D (apps)

#### **SCREEN**

Retina HD display 4.7-inch (diagonal) widescreen LCD

Multi-Touch display with IPS technology 1334-by-750-pixel resolution at 326 ppi

334-by-730-pixel resolution at 3

1400:1 contrast ratio (typical)

True Tone display

Wide color display (P3)

Haptic Touch

625 nits max brightness (typical)

Fingerprint-resistant oleophobic coating

Display Zoom

Reachability

# INSIGHT

Apple softwear

A15 Bionic chip

6-core CPU with 2 performance and 4 efficiency cores

4-core GPU

16-core Neural Engine

#### **APPS**

E.g. Polycam, Matterport, Rokoko Remote & Face Capture, Live Link etc.



# **SCREENS**



# **INFO**

FOR PRESENTATIONS

Screens for displaying

# **CLEVERTOUCH 86"**

UX Pro 2 Gen 2
Touchscreen in 4 K
2 x USB-C ports
Infinity whiteboarding
Screen mirroring
On clouds like Google
Workspace & OneDrive



# **SONY 75**"

BRAVIA FW-75BZ40H LED Monitor Smarttv in 4K 4x HDMI, 2x USB inputs/ports Ultra HD / HDR professional displayer Built-in cromecast, Apple Airplay and wireless LAN







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