OPTOFIDELITY
Enabling Smarter Future

Cloud Streaming and E2E Latency for Immersive XR

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Status with Immersive XR

XR: Extended/Mixed Reality

Virtual content is rendered over the real content, in real-time, it is blended so perfectly, that the user can not distinguish what is real and what is virtual.

Limitations:

- High-end GPUs to meet computing requirements
- High-resolution, high frequency displays
- Low latency, Jitter and Judder requirements
- A HW/SW platform for on-demand collaboration, AI integration for the deployment of XR applications

The road to mass adoption:

- Mobile freedom

Current Status:

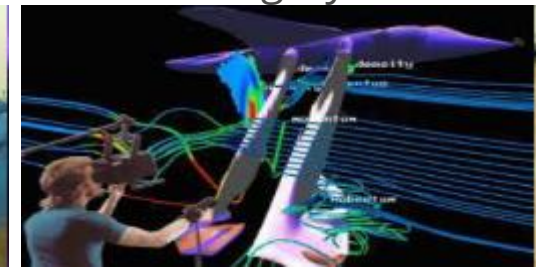- Limited processing power, not enough memory, low graphics, etc.

Applications

Product Design

Surgery

Training

CAE/Simulation

Gaming

Defense

Image Credit-1

Image Credit-1: GTC Digital April, Rouslan Dimitrov, NVIDIA

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Future with Immersive XR

Cloud Streaming/Edge Computing
- Rendering on the server side
- Streaming via 5G network
- Displaying on a mobile device

Challenges
- High E2E M2P latency
- Fluctuations in network quality

How to overcome?
- Time/Late warping
- AI/Deep learning for rendering
- Optimized network for streaming

Image Credit-2

Image Credit-3

Image Credit-2: GTC Digital Spring, Jordan Yang, Compal, Image Credit-3: MWC 2023, Ravi Agarwal, Qualcomm

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Company Introduction

OPTOFIDELITY

OptoFidelity

- ✓ 18 years of expertise in test automation, optical metrology

- ✓ Off-the-shelf products and tailored test solutions

- ✓ 14000+ delivered systems

- ✓ 450+ true tech geeks worldwide

- ✓ 18 support and service teams on 3 continents

- ✓ Working with all major brands including Google, Intel, AMD, Qualcomm, Samsung, US Army, Daimler, Hyundai, Lenovo, Asus, Microchip, Dispelix, Pico, Sunny Optical, etc.

- ✓ HQ and own manufacturing in Finland, EU

- ✓ Engineering offices in Cupertino, CA and Redmond, WA

- ✓ Engineering and manufacturing offices in APAC

- ✓ Global market leader in AR and Touch display optical metrology and robot-assisted test & measurement systems

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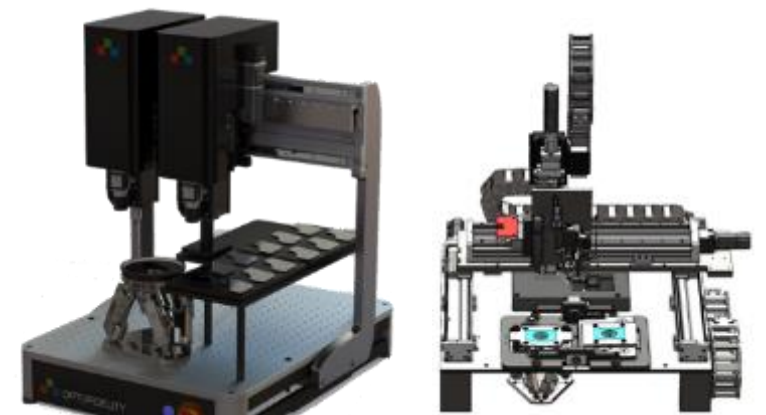**MASTER CREATION & ANALYSIS**
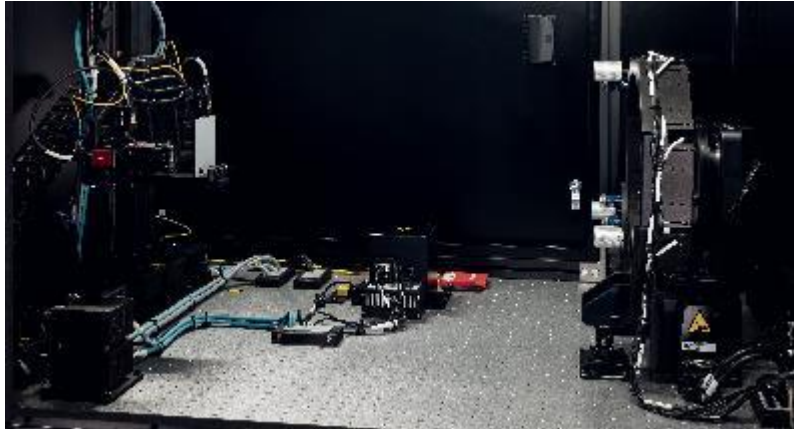
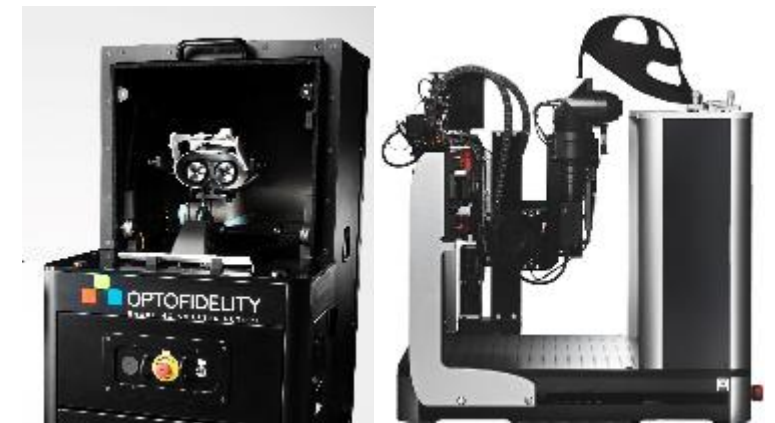**WAVEGUIDE R&D/NPI TESTING**
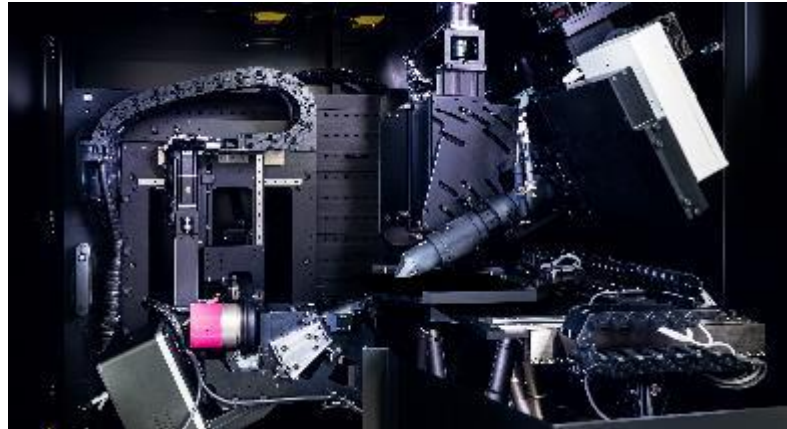
STACKING & PROJECTOR AA

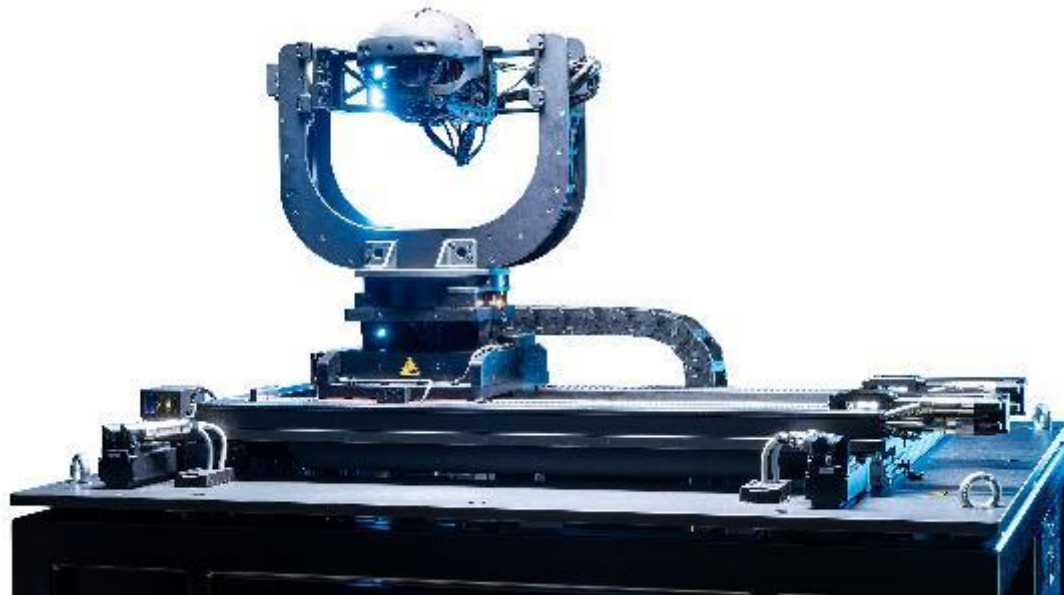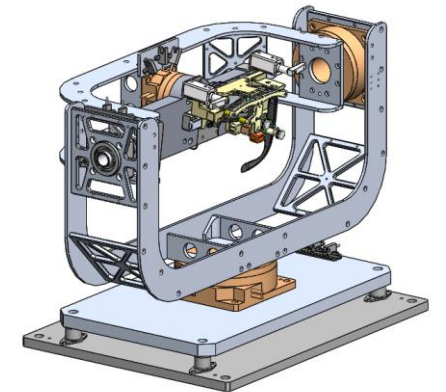**REPLICATION & VISUAL INSPECTION**
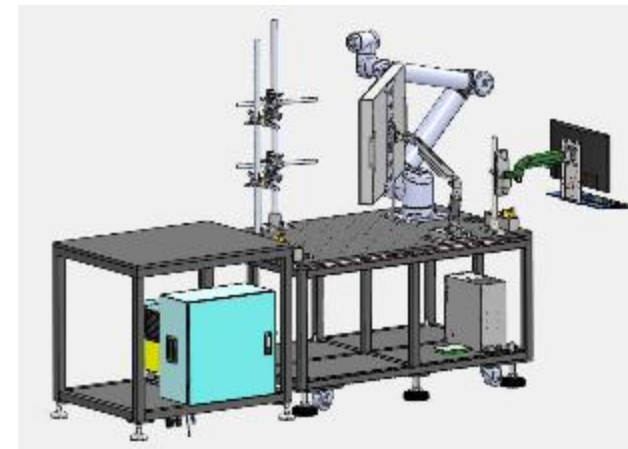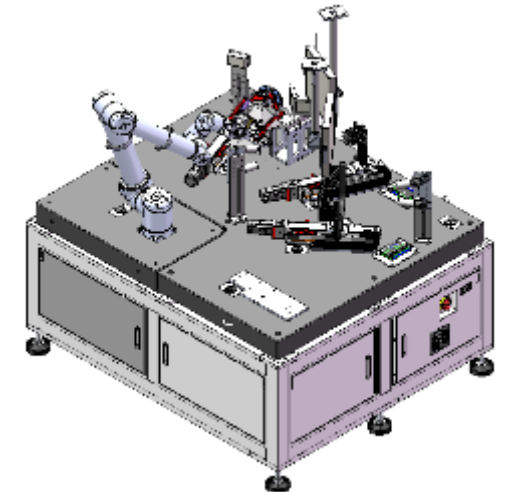
WAVEGUIDE MP TESTING

EOL FINAL TESTING

OPTOFIDELITY

E2E M2P, TRACKING, SLAM, HOLOGRAM STABILITY, WORLD LOCKING

CALIBRATION OF IMU/EYE/FACE TRACKING, GESTURE RECOGNITION

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Let's optomize your testing together!

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