

 **SR** | DEVKIT

The interactive light-field 3D 8K display



 **DIMENCO**

“ DIMENCO DISRUPTS 3D VIEWING  
**TRULY  
AMAZING** ”

..  **Deutsche  
Telekom** AKSEL DIEHL  
VICE PRESIDENT  
BUSINESS DEVELOPMENT  
& VENTURING @ T-BC  
@DEUTSCHE-TELEKOM.AG

“ THIS AMAZING PC FROM DIMENCO  
SR ALLOWS USERS TO DO INTERACTIVE 3D WITHOUT GLASSES.  
**THIS IS A  
VERY BIG DEAL** ”

**Forbes** WHY 2019 WAS THE BEST YEAR  
FOR AR AND VR AT CES  
BY CHARLIE FINK 

# Our Vision

**Interact with 3D objects in a virtual environment without any wearables.**

Simulated Reality (SR) is the perception of a truly believable interactive 'Reality', without the need for unnatural peripherals such as headsets and controllers.

SR will delight all ages and delivers the first taste of the future of human-computer interaction. **Ready and shipping**

## Visualization industry

The creator market has always been on the forefront of incorporating the latest innovations. After decades of creating 3D designs on 2D monitors it no longer makes sense. As display technology has immensely evolved, it can now clearly show to the user dimensions and all critical details of their 3D models that regular 2D displays just can't capture. -At any angle in a fully natural way without the need of any headwear or wearables. Which is an incredible benefit.



**Schematic visualization of the SR Devkit**

The worlds first interactive light-field 3D 8K display.  
Shipping since Q4 2019 and used in various industries.

## How does Simulated Reality work? (Schematic)

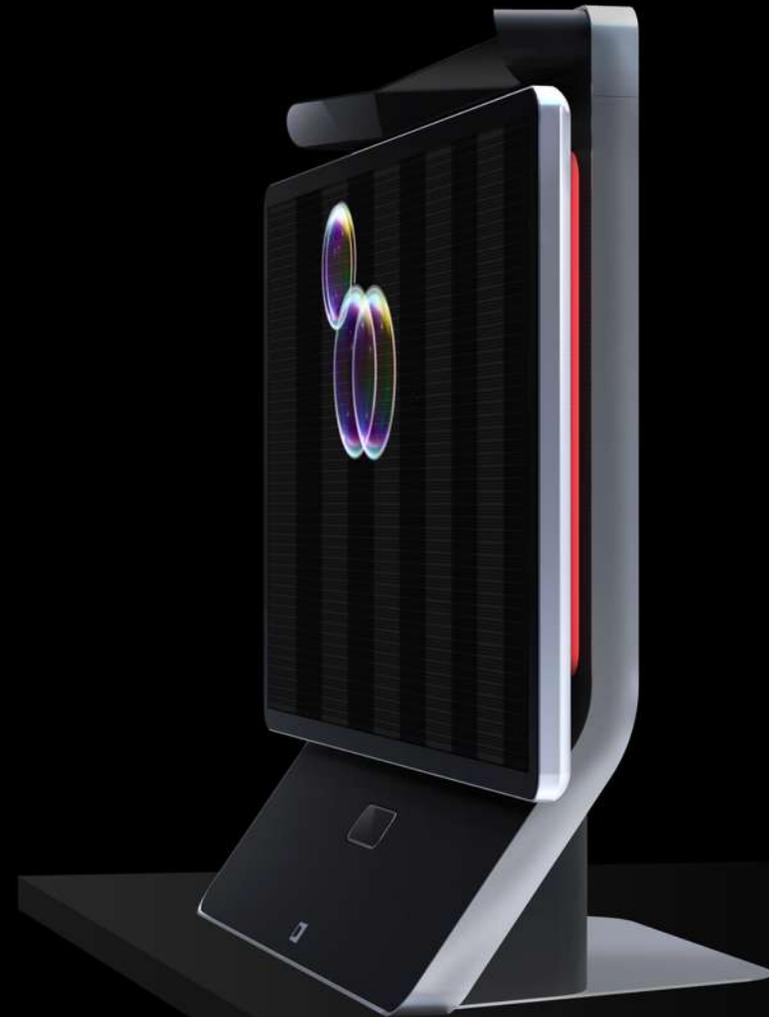
The spatial Simulated Reality technology merge the user's senses into a seamless natural experience.

- Vision
- Interactivity
- Sound



- **Display** (Light field technology)

The display produces a stereoscopic 3D image. Combines volumetric lenticular lens technology with stereoscopic 3D content.



- Eye tracking

Eye tracking is being used to precisely locate the users left and right eye.



- Eye tracking

This eye tracking information is being processed by the internal chip...



- Eye tracking

- ...merging the left and right eye image into a real time 3D image displayed to the user.



- Full look around 3D objects

The display generates full look around 3D objects with an unmatched 4K resolution per eye.

- Rays of light visualize highly detailed *"holographic like"* content.



- **Interactive 3D content**

The integrated hand tracking sensors make it possible to seamlessly interact with realistic 3D objects in a virtual environment, without the need of any headwear or wearables.



- **Interactive 3D content**

The hand tracking data is being processed by the internal chip. Merging this in real time with the 3D engine software.



- Natural experience

This makes it possible to seamlessly interact with realistic 3D objects in a virtual environment, without any wearables.

- A fully natural way of user interaction without any learning curve



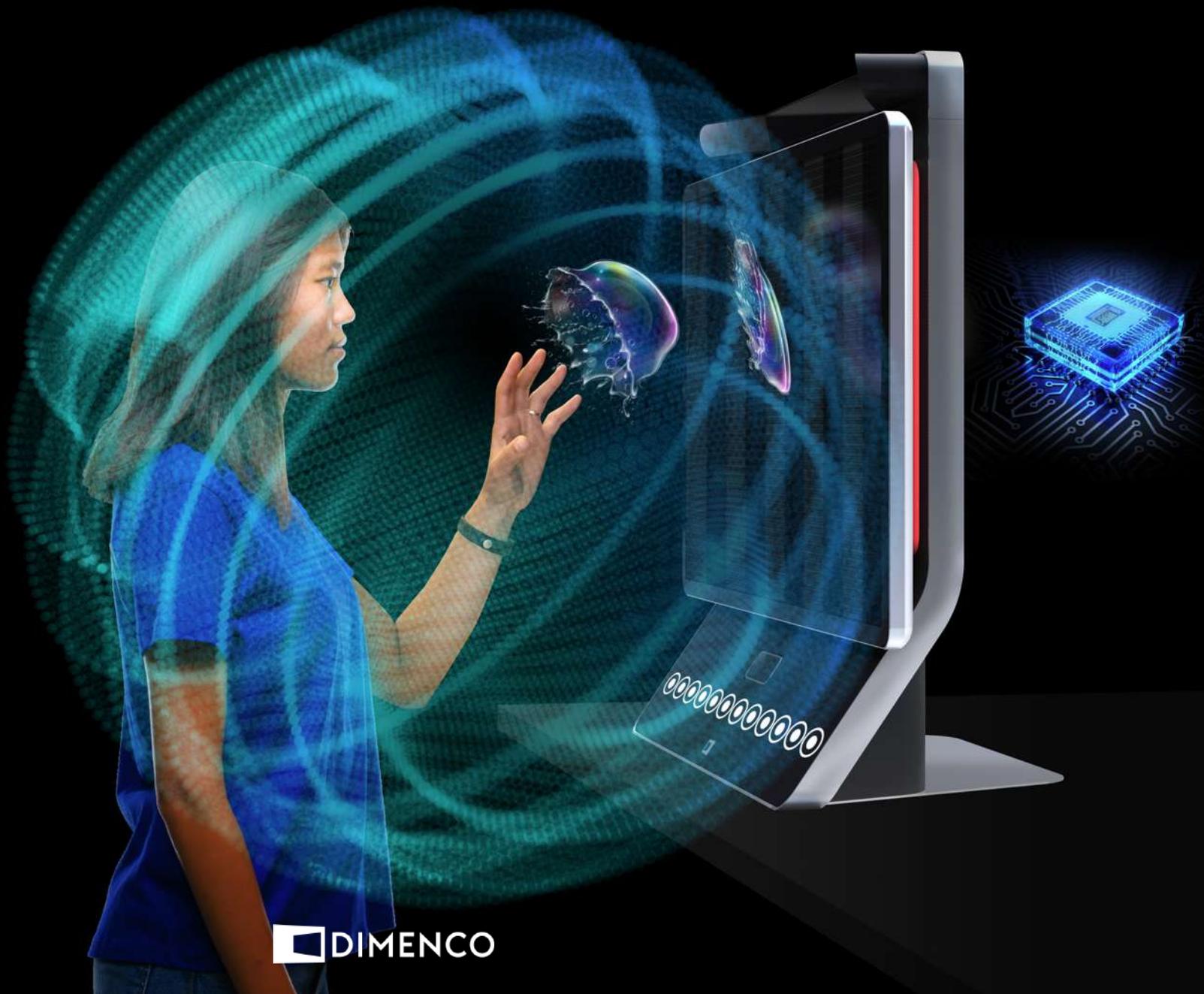
- **Spatial sound**

The Simulated Reality Development Kit is equipped with 12 speakers.



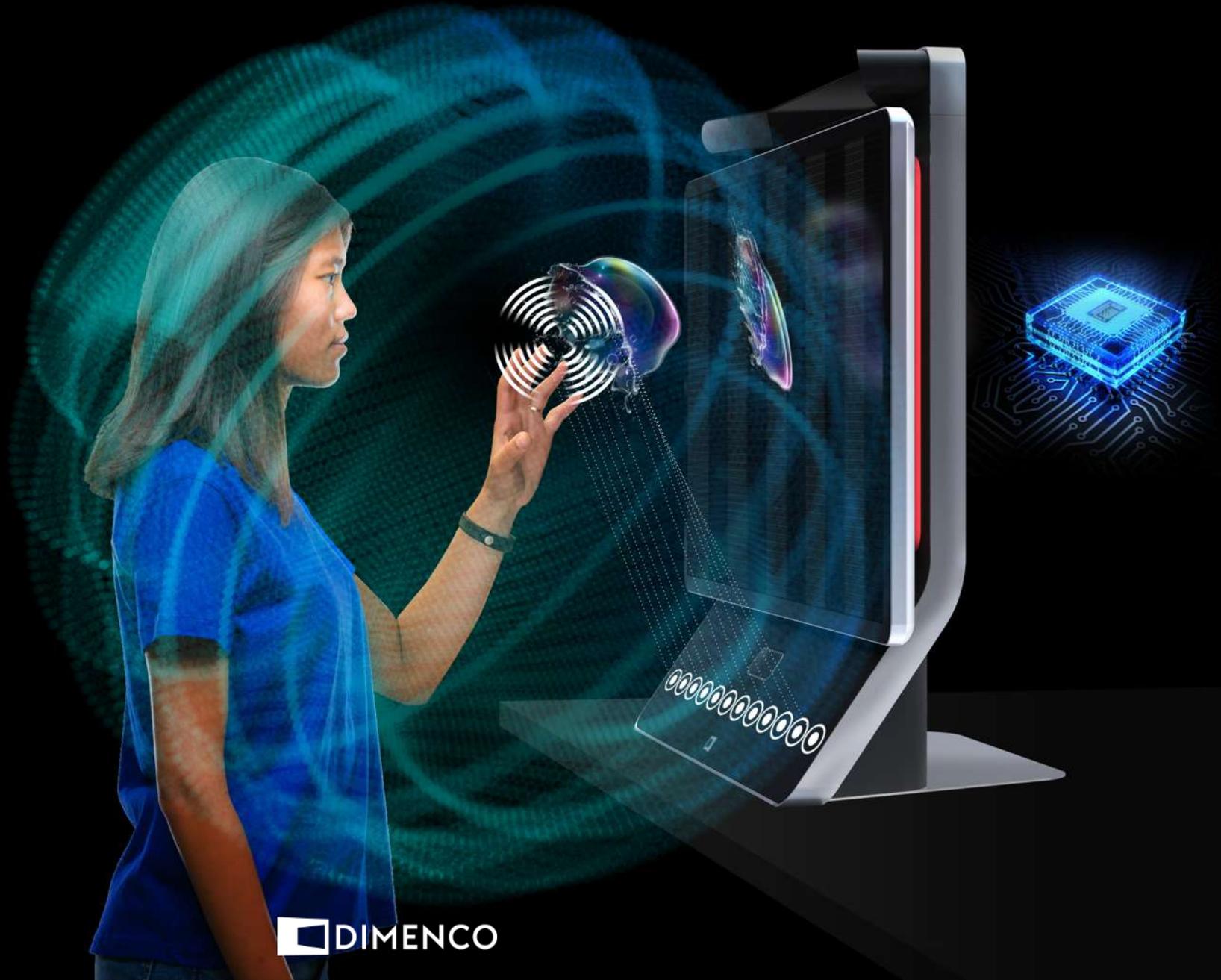
- **Spatial sound**

These 12 speakers create a spatial sound sphere, fully surrounding the user.



- **Spatial sound**

This makes is possible to create highly precise, location based sound effects.



- Spatial sound

This will enable the user to precisely pinpoint the sound source. -Matching the location in space of the interactive 3D object.



# Technical specifications

## Display

Optics	Dimenco clear view lenticular lens
LCD display resolution	31.5 inch QUHD (7680 x 4320), 16:9, 60Hz
Brightness	400 cd/m2
Hardware weaving input	2x (stereo/side-by-side) 3840 x 2160, 60 Hz
Crosstalk	< 2%
Field of view	120°

## Embedded PC

CPU	Intel i7 8700 (6-cores @ 3.2-4.2 Ghz)
Chipset	Intel Q370
GPU	Nvidia Geforce RTX 2080 Ti
Memory	2x 8 Gb DDR4 2400 Mhz DRAM
Storage	256 Gb M.2 SSD
Operating system	Windows 10 IOT SAC

## Sensors

Eye-tracking	2x Intel Realsense D415, 848 x 480 @ 90 Hz
Hand tracking	Leap motion

## Dimensions

width x height x depth	730 x 620 x 300 mm
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## Weight:

21 kg - 47 lbs

## Speakers

12-channel array for beamforming/spatial audio incl. 4" 30W subwoofer

## Connectivity

4x USB inputs	4x USB 3.0
1x ethernet connection	1Gb ethernet (10/100/1000 Mbps)
1x HDMI 2.0a display output (max. res. 4096 x 2160 @60 Hz)	Connected to internal graphics (Intel UHD graphics 630)



 DIMENCO

# What's included



## SR Devkit 8K

The ultimate all in one device

## Power supply

Both US and EU Power cables

## SR Quick start guide

Be up and running in no time

## 1 year of full support

Complimentary technical support from our in-house hard- and software teams.

## Software suite



### SR Player

Play 3D video content

### SR Model Viewer

Visualize and interact with any 3D object

### SR App Store

Native applications, plug-ins and tools

## Fully supported:

Autodesk fusion 360  
Alibre, Blender, 3DS MAX  
.CAD .fbx. gltf .obj .step .stl  
and many more.

C , C++ ,C#

 Unity

 Unreal Engine (UE4)

Open GL

Direct X

Vulkan



It's not a blue-sky concept...  
It's not a white paper...  
It's a real system that's deployed in multiple industries.

**SIMULATED  
REALITY**

[www.dimenco.eu](http://www.dimenco.eu)

Visit our website to place your order for the SR dev kit.

 <https://twitter.com/SRplatform>

 <https://www.facebook.com/dimenco.eu>

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