# Natural 3D displaying\*

\*for the naked eye



## Large-scale 3D displaying



Realistic 3D visualization of rendered content on HoloVizio 720RC

"Historically, 3D displays have typically featured some sort of trade off in image quality so that they were never as good as their 2D counterparts. Recent developments in 3D diplaying have demonstrated this not only possible but reasonably cost effective." *Insight Media, 3D Technology and Markets, A Study of All Aspects of Electronic 3D Systems, Applications and Markets, 2007* 

# HoloVizio 720RC

### Why HoloVizio is true 3D?

User benefits of Holografika technology in 3D display solutions:

- Continuous motion parallax, which provides "look-behind" capability
- Large field of view supports more viewers, and collaborative use
- No fixed viewer positioning required, viewer can freely move in front of the screen
- No optical contradictions, no side effects, discomfort, disorientation in longer, everyday use
- Stable 3D image which don't "jump" between views in the horizontal perspective
- Reference points do not move if the viewer is moving and are exactly there where they seem to be (the 3D object position does not depend on the viewers' position)
- No head tracking necessary (no latency or accuracy problems)
- The 3D view can be seen in the entire field of view, no invalid zones
- Any kind of objects or 3D views can be visualized with correct occlusion, vs. wire frame, translucent images only, offered by certain technologies
- Ability to display any type of 3D information and to use different OpenGL based 3D software solutions
- 2D compatibility. No need to switch between 2D and 3D view
- Full frame reate motion and real-time interactivity
- Proper brightness, good visibility under normal lighting conditions





#### The 3D displaying technology that works

The holographic 3D display system developed by Holografika overcomes the limitations of the current 3D displays, reconstructing natural 3D images to a number of viewers in a reasonable field of view, with walkaround possibility without any restrictions.



This is a high-end solution compared to other technologies and fullfils all the requirements of real 3D displaying simultaneously.



CRS4 Visual Computing

#### Users of a HoloVizio 720RC system

"CRS4 research activities focus on enhancing spatial understanding of massive 3D data through the development of novel interactive rendering systems harnessing the perceptual cues delivered by 3D displays. The main applications include exploration of large volumetric datasets generated by medical data acquisition devices and time-critical visualization of gigantic point clouds and triangle meshes generated by 3D scanning and numerical simulation."

CRS4 Visual Computing, Italy

Product name HoloVizio 720RC Aspect ratio 16:9 **Screen size** 72" (~1800 mm) diagonal 1600 mm x 900 mm **3D** resolution 34.5 Mpixel 2D equivalent resolution 1080 x 600 pixel Input Gigabit Ethernet (CAT6) or Infiniband **Compatibility** PC & WorkStation **Viewing angle** 50° ~ 70° horizontal Colour 16 Million (24 bit RGB) 115% NTSC **Brightness** >1500 ANSI Lumen Dimensions (W x H x D) 3256 mm x 2140 mm x 2894 mm Power network compatibility 50 Hz ... 60 Hz Nominal voltage 230/400 V, 115/200 V **Power Consumption / Dissipated heat** Max. 10 kW 5-wire TNS system **Operating temperature** +5°C ... +40°C **Relative humidity** Max. 80% / 50% Usage type Indoor

\*1 CAD software tested with HoloVizio systems: ArchiCAD, AutoCAD, Autodesk Inventor, Alias StudioTools, CATIA, CoCreate OneSpace, DesignCAD, Pro Engineer, Rhino, SolidWorks, Unigraphics

- \*2 Modeling software tested with HoloVizio systems: 3ds Max, Blender, Bryce, Cinema4D, LightWave 3D, Maya, Softimage XSI
- \*3 Other software: Shell 123DI, VMD

