

EVE Demo Sheet

Real-time Interactive 3D Object Rendering

This demo showcases the powerful real-time rendering capabilities of our **5th generation Embedded Video Engine (EVE)**, the **BT820**, highlighting user interaction through touch controls. It consists of two interactive examples: **a wireframe Utah teapot** and **a rotating cube with video-mapped surfaces**.



Demo 1
Interactive Wireframe Utah Teapot

Description:

The first part of the demo features a classic wireframe Utah teapot rendered in real time. Hundreds of anti-aliased lines are used to ensure smooth edges, eliminating jagged lines for a high-quality display.

Key Features:

- **Real-Time Rendering:** The Utah teapot is rendered live, showcasing the BT820's ability to process complex geometries with high efficiency.
- **Anti-Aliasing:** Advanced anti-aliasing techniques smooth out the lines for a cleaner, more polished visual experience.
- **Touch Interaction:** Users can rotate the teapot in real time by touching and dragging, allowing them to view the object from any angle.



Demo 2
Interactive Rotating Cube with Video Input

Description:

The second part of the demo presents a rotating cube, with each face filled by real-time video input. The seamless mapping of the video onto the surfaces of the cube is managed by the Embedded Video Engine.

Key Features:

- **Real-Time Video Mapping:** Each surface of the rotating cube displays live video input, demonstrating the BT820's ability to process and render video content onto 3D objects in real time.
- **Touch Interaction:** Users can interact with the cube by touching and dragging to control the speed and direction of rotation. Tapping the cube pauses or resumes the rotation while video playback continues.