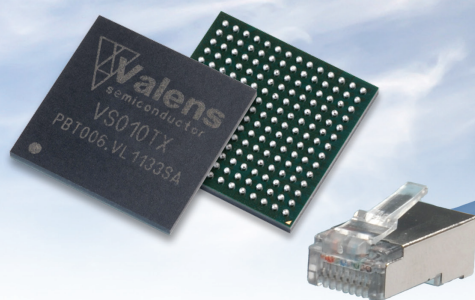


HD Connectivity and  
Multimedia Distribution –  
Longer Distances,  
Improved Reliability,  
Lower Cost



Controls  
Power  
Audio  
HD Video



## Features

- **Complies with HDBaseT 1.0**
- **Interplay with Valens' VS 100 product line**
- **Simultaneous distribution of the following to a distance of up to 70 meters over a cat5e/cat6a cable:**
  - Uncompressed high definition (HD) video:
    - 1080p@60Hz@36 bits
    - 1080p@60Hz@48 bits, 3D, 4K x 2K up to a distance of 40m/150ft
  - High-quality audio
  - Power over cable
  - Control signals including RS232 and infrared
- **HDCP Compliant**
- **HDMI Rx interfaces for easy integration**
- **CISPR/FCC Class B EMC/EMI compliance**
- **Power:**
  - 1V, 1.8V and 3.3V
  - 5V tolerant IOs
- **196-pin LPGA, 15mm x 15mm**
- **0°C to 70°C operating temperature**
- **RoHS and Green compliant**

## Applications

- **Blu-ray, DVD players and recorders**
- **Digital set-top-boxes (STBs)**
- **Game consoles**
- **PCs**
- **HDMI repeaters, splitters, switches**
- **HDBaseT Switch**
- **A/V Receivers**
- **Surveillance Cameras**

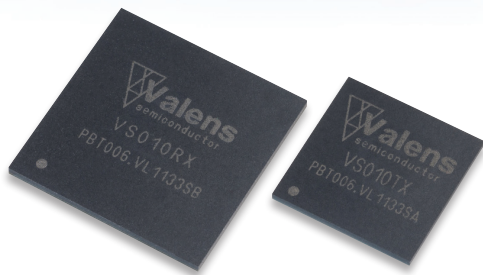
## Overview

The Valens VS010™ chipset transmits and receives uncompressed HD, video, audio, power and control signals over a cat5e/cat6a cable of up to 70 meters.

HDBaseT delivers a significant value to the entire home and commercial entertainment ecosystem, from CE/PC equipment manufacturers and audio/video connectivity product suppliers, through systems integrators and retailers, to installers and consumers. Homes, offices, hotels, airports and other public places can now install a robust HD ecosystem easily, effectively and at a very low cost.

**The VS010 family consists of two chips:**

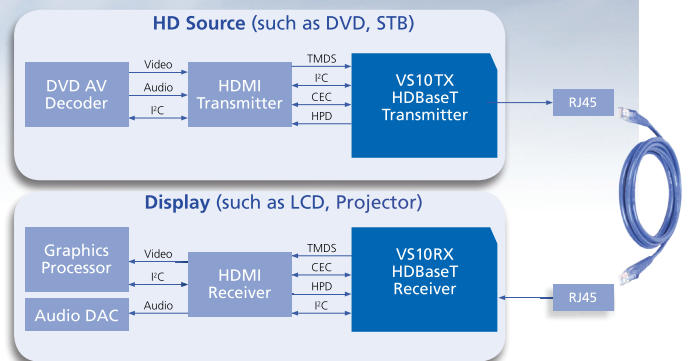
- **VS010TX** (Transmitter): For DVDs, STBs and other HD source equipment.
- **VS010RX** (Receiver): For HDTVs, projectors and other display equipment.



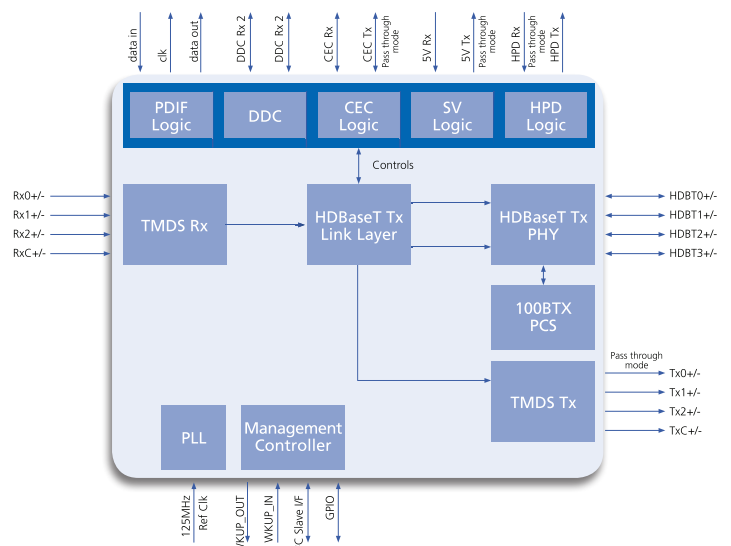
**The VS010TX supports the following interfaces:**

- HDBaseT Tx
- 1xHDMI in
- 1xHDMI out
- Bi-directional control channel which can be used for example for RS232 and IR control
- I<sup>2</sup>C slave management

**System Functional Diagram**



**VS100TX High-level Block Diagram**



## About Valens

**Valens** is a leading provider of semiconductor products for the distribution of uncompressed HD multimedia content. The company invented HDBaseT™, the first technology to enable long-reach connectivity of multimedia devices over a single 100m/328ft standard CAT5e/6 LAN cable.

In late 2009, Valens joined with world market leaders to found the HDBaseT Alliance to promote and standardize HDBaseT™ technology.

Established in 2006, Valens is a private company with offices in Israel, Japan, Hong Kong and the USA.