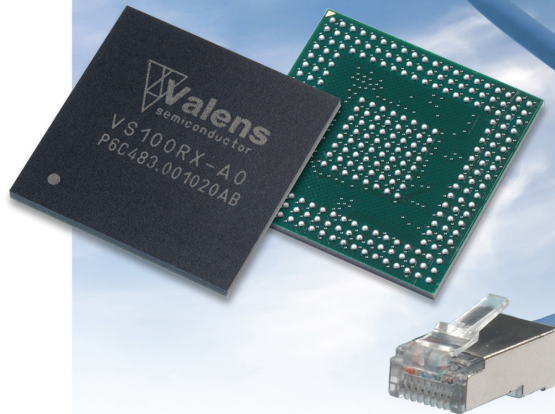# Valens

VS100RX HDBaseT™ Receiver

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

Controls
Power
Ethernet
Audio
HD Video

Features

- **5Play convergence –**
  simultaneous distribution of:
  - Uncompressed high definition (HD) video:
    1080p@60Hz@48 bits, 3D, 4K x 2K
  - High-quality audio
  - Ethernet 100BaseTx
  - PoH - Power over HDBaseT
  - Control signals including RS232 and infrared

- **HDCP Compliant**

- **HDMI Tx interfaces for easy integration**

- **CISPR/FCC Class B EMC/EMI compliance**

- **Support of 100BaseTx according to**
  IEEE 802.3u

- **Power:**
  - 1V, 1.8V and 3.3V
  - 5V tolerant IOs

- **268-pin LBGA, 21mm x 21mm**

- **0℃ to 70℃ operating temperature**

- **RoHS and Green compliant**

Applications

- **A/V Receivers**

- **DTVs, LCDs and Plasma displays**

- **Rear and front projectors**

- **HDMI repeaters, splitters, switches**

- **HDBaseT Switch**
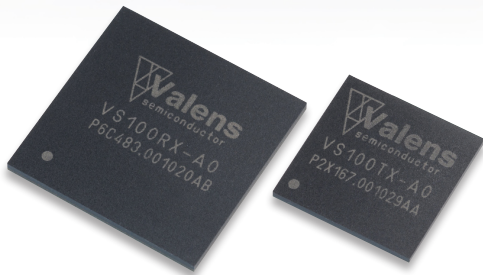
- **Digital Signage**

- **DVR for Surveillance**

Overview

The Valens VS100™ is the first HDBaseT-compliant chipset. It transmits and receives uncompressed HD, video, audio, Internet, power and control signals through a single 100m/328ft LAN cable.

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.

VS100RX HDBaseT™ Receiver

The VS 100 family consists of two chips:

- **VS100TX** (Transmitter): For DVDs, STBs and other HD source equipment.
- **VS100RX** (Receiver): For HDTVs, projectors and other display equipment.

System Functional Diagram

HD Source (such as DVD, STB)
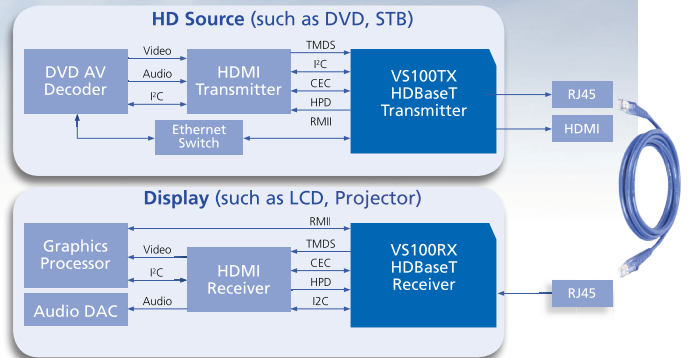
Display (such as LCD, Projector)

The VS100RX supports the following interfaces:

- HDBaseT Rx
- HDMI out
- MII/RMII bi-directional interface to interact with external Ethernet MAC /switch
- Bi-directional control channel which can be used for example for RS232 and IR control
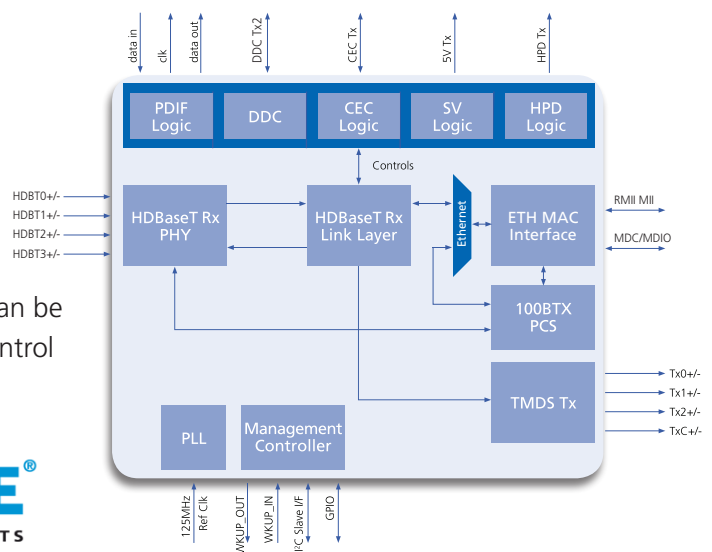- I²C slave management

VS100RX High-level Block Diagram

Vertrieb durch Distribution by

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COMPUTER COMPONENTS

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About Valens

Valens Semiconductor 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 Allicance to promote and standardize HDBaseT™ technology.

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