Introduction to its 60GHz Wireless Video Technology for Entertainment

SiBEAM, Inc. - Arnold Brown, VP Corp. Development
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SiBEAM Introduction

SiBEAM is a pioneer in advanced wireless semiconductor solutions. SiBEAM has developed technology for WirelessHD™ transmission of 1080P Video Content – transmitting every bit, every frame and every color.
SiBEAM’s secure high quality A/V technology

- SiBEAM’s OmniLink60™ technology designed to be compliant with WirelessHD 1.0 specification:
  - Uncompressed HD video, audio and data transmission, scaleable to future high-definition A/V formats
  - Smart antenna technology for a non line of sight (NLOS) reliable, high-quality consumer experience
  - Device control for simple operation of consumer electronics products (AVC)
  - Up to 4 Gbps data rates at 10 meters in-room
  - AES encryption
  - Based on an open industry standard
  - Bit Error Rates similar to wired (HDMI) solutions
- Founding member of WirelessHD Consortium
Media Device Connectivity

4 Gigabit Forward Channel*

~50 Megabit Back Channel

* Future innovation is expected to increase bandwidth of forward channel
SiBEAM’s WiHD™ Compliant Technology

Delivers Full HD without visual distortions from lossy or compressed techniques

Lossy but Uncompressed Wireless

VS

Pixels, Chroma, Luma, High Frequency

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OmniLink60™

- Wireless Video Area Network (WVAN) Operation:
  - Coordinator auto-discovers devices in the WVAN
  - Device capabilities exchanged
  - Continuous monitoring of WVAN and stations within or joining/leaving WVAN
Why are we here at CPTWG?

The need to interoperate with content protection regimes

Transmission of WiHD Video will require interoperability with content protection used in today’s CE devices.

SiBEAM has an interest in:
- increasing awareness of its 60GHz solution
- facilitating interoperability with content protection regimes
Content Protection for SiBEAM’s OmniLink60™ Technology

- Guiding principles:
  - When streaming content, use highest-quality, *uncompressed* HD content
  - Utilize established content protection techniques
  - Employ strong encryption (eg. AES)
  - Apply proximity controls
Technology uses a large (roughly 5 GHz) shared range of unlicensed spectrum around 60GHz frequency range – throughout major territories

- Large bandwidth $\rightarrow$ high data rate (4 GB)
- High transmit power $\rightarrow$ greater range
- High directivity $\rightarrow$ lower interference, longer range
In early 2005, seven market leaders and industry experts formed a special interest group called WirelessHD to develop an interoperable wireless specification for wireless multimedia transmission.

In 2007, the number of Promoters expanded to support the interests of the PC industry through a worldwide standards leader.

In January 2008 WirelessHD 1.0 is made available to Adopters.
Questions

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