



# SB9220/SB9210 WirelessHD® HRTX Chipset

## Complete Wireless Video-area Network Solution

The SB9220/SB9210 WirelessHD HRTX chipset is a second-generation WirelessHD chipset providing a complete wireless video-area network (WVAN) solution. The SB9220 Network Processor, when combined with the SB9210 RF Transceiver, provides all of the functionality needed to enable a complete wireless A/V network, from joining an existing network to setting up a WVAN as a WirelessHD Coordinator.

### Applications

- ◆ Notebook PCs
- ◆ Blu-ray™ / DVD Players
- ◆ A/V Receivers
- ◆ Media Receiver Set-top Boxes
- ◆ Home Theater-in-a-box
- ◆ HD Set-top Boxes

### Key Features

- ◆ 4Gbps over-the-air data transfer rate
- ◆ 10m NLOS operation
- ◆ Modules based on SB92xx have passed FCC and EU regulatory testing
  - FCC CFR47 part 15 Subpart C
  - EN302 567
  - EN301 489-28
  - EN62311
  - EN60950-1
- ◆ Low power operating modes including sleep mode

### Benefits Summary

- ◆ Complete embedded system software manages all WVAN activity with minimal or no system control
- ◆ On-package 32-antenna array eliminates need for RF antenna design
- ◆ Low power operation requires no active heatsinking
- ◆ Small form factor designs fit behind small front bezels

### Industry-Standard Compliance

- ◆ WirelessHD® 1.0
- ◆ HDMI® 1.4a
- ◆ HDCP 2.0
- ◆ DTCP

### Digital Audio/Video Input

- ◆ Capable of transmitting uncompressed 1080p/60Hz 4:4:4 video
- ◆ Support for video resolutions from 480i/576i to 1080p/60Hz and 3D video
- ◆ Support for 2-8 channel audio from 32-192 kHz
- ◆ Flexible video interface with HDMI and parallel inputs
- ◆ DTCP and HDCP 2.0 encryption for Blu-ray, Hollywood content

### WirelessHD System Operation

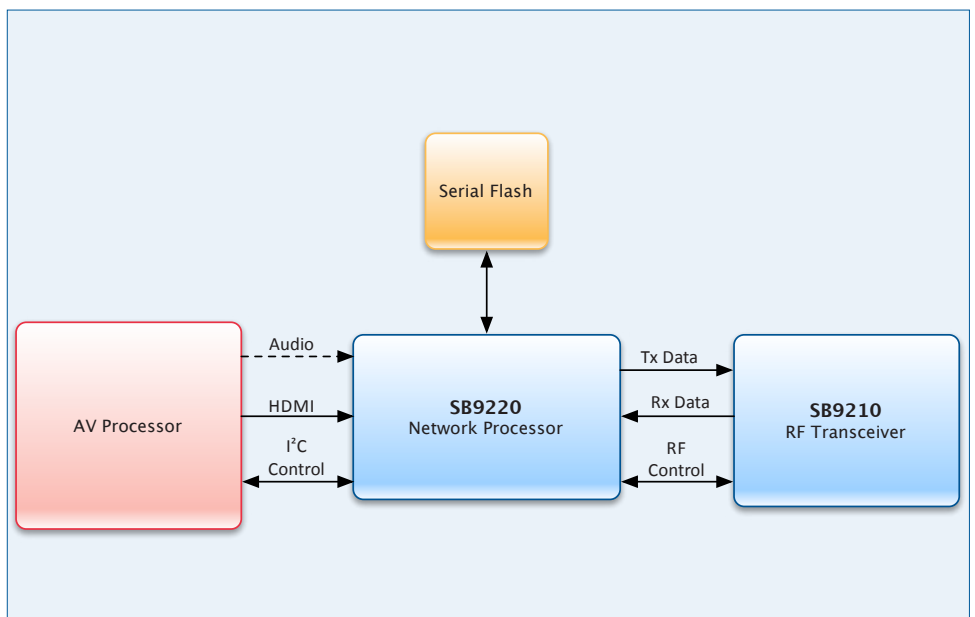
- ◆ Embedded CPU manages WirelessHD protocol simplifying host interaction
- ◆ Embedded CPU handles all aspects of creating, joining or leaving WVAN
- ◆ WirelessHD Coordinator capable
- ◆ Fully compatible with HDMI-CEC

### New Features

- ◆ Supports high rate PHY (HRP) channels 2 and 3
- ◆ Reduced number of voltage rails for lower cost
- ◆ Lower power 65nm designs need only passive heatsinking

### Package

- ◆ Higher efficiency, embedded 32-antenna MicroArray™
- ◆ Smaller form factor SB9210 RF Transceiver in 17x21mm ceramic package
- ◆ Smaller form factor SB9220 Network Processor at 17x17mm BGA



Enhancing the connected HD experience

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