

Preliminary Product Brief

Intelli*BLUE*™ BIC2201

Bluetooth Hi-Fi Audio Application Processor

December 2000

Product Overview

The BIC2201 Bluetooth Hi-Fi Audio Application Processor introduces the Bluetooth™ Wireless Technology to the Consumer Entertainment Market. The BIC2201 is targeted for High-Quality Audio and Multimedia applications, and enables easy implementation of versatile Audio data formats and compression techniques.

The BIC2201 is based on a unique architecture, incorporating a dual ARC3 RISC processor engine, along with an embedded DSP, task specific blocks and coprocessors. The BIC2201 is a single chip solution, incorporating complete Bluetooth Baseband and Protocol Stack, as well as Audio decoders for MP3 and AC-3.

BIC2201 is a member of the IntelliBLUETM chipset family, carefully designed to meet the tough requirements of mobile and wireless networking environment. It is an ideal solution for wireless audio distribution in applications such as wireless MP3 headsets, Home-Theater systems and more.

Product Main Features

- The BIC2201 is designed for High Quality Audio distribution over the Bluetooth Wireless Link, for a wide range of Wireless Audio Applications.
- Dual ARC3 RISC processors architecture with embedded DSP to support a versatile set of Audio Applications:
 - MP3 decoder at typical 1:12 data reduction for CD quality stereo.
 - Dolby Surround AC-3 compression supporting data rates ranging from 32 Kbps to 640 Kbps.
- Industry Standard Communication Interfaces:
 - UART up to 1.5 Mbps.
 - PCM/CVSD.
- Bluetooth Programmable Radio PHY Interface.
- Designed to fully support BluetoothTM Wireless Technology On-Chip:
 - Complete Bluetooth Protocol Stack running on-chip
- BrightAPI for easy transparent access to high level Applications.
- Physical Characteristics:
 - 1.8V core, 2.7V I/O (0.18u CMOS).
 - 10 X 10 mm BGA package.
- Miscellaneous:
 - JTAG and Debug test interfaces.
 - Programmable GPIO (I2C/SPI).

Summary of Benefits

- BIC2201 is an IntelliBLUE based IC device targeted to serve as a cost-effective Bluetooth Application processor for High-Quality Audio distribution systems designed to achieve:
 - Full featured Audio compression embedded On-Chip.
 - Transparent Solution, no need for a Host.
 - Seamless interface to Bluetooth Radio modules.
- Reduced Time-to-Market through:
 - On-Chip Application and profiles.
 - Building a Bluetooth solution requires Bluetooth Radio IC and passive peripherals only.

Applications

- Wireless Earphone.
- Wireless Loudspeakers.
- Audio Distribution for Home-Theater MP3/AC-3. Entertainment Systems.
- MP3 players headsets.



BIC2201 APPLICATIONS

Wireless Audio Connection BIC2101 Bluetooth Module Host-Less/Host-based Implementation Implementation With MP3/AC-3 Decoding With MP3/AC-3 Decoding

Wireless Loudspeakers

for Data streaming



The BIC2201 incorporates an integrated dual ARC3 RISC processor architecture with embedded DSP to support the BluetoothTM Protocol stack for the wireless link, as well as a variety of Multimedia Compression Techniques.

The robust architecture is ready for Multimedia channels distribution, and was designed to support MP3 decoding, as well as other compression technologies such as Dolby Surround AC-3.

The unique architecture and features of the BIC2301 enable simple design and integration processes, using passive peripherals only, even for complex configurations.

The BIC2201 is part of the IntelliBLUE product line, and applications may incorporate also the BIC2101 Bluetooth USB/Serial Application Processor. The BIC2101 is a small footprint, cost effective Bluetooth enabler for a wide variety of devices, performing raw-data streaming to remote Multimedia devices.

Availability

Samples will be available on 4Q2001, Production quantities available on 1Q2002.

For more information please contact us at: Phone: 972-3-9039033, Fax: 972-3-9039032

E-Mail: info@brightcom.com

Visit our web site at: www.brightcom.com

BrightCom Technologies Ltd.

16 Hamelacha St., Afek High-Tech Park, Rosh-Haayin 48091, Israel

BrightCom Technologies Ltd, reserves the right to make changes to its products without notice.