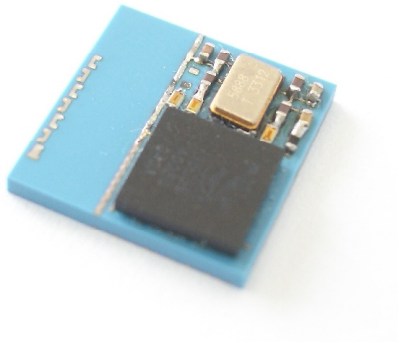
Bluetron™ Module BTR300S

Key Features



- **A small and cost effective Bluetooth® System with integrated antenna**
- **Bluetooth® specification v2.0 + EDR compliant**
- **Class 2, up to 10-meter range**
- **Complete 2.4GHz Bluetooth® System including:**
  - Hardware: Antenna, Radio, Baseband, E^2PROM, and 1.8V Linear Voltage Regulator
  - Standard Firmware: HCI (UART or USB)
- **Power management: low power 1.8V operation for Bluetooth® core**
- **Compact size: 11 mm x 11 mm x 2.15 mm**
- **Support scatternet**
- **Full speed USB V2.0 interface supports UHCI and OHCI host interfaces**
- **Support multiple connections**
- **Surface mount module for embedded applications**
- **UART interface with programmable baud rates up to 3Mbps**
- **Audio PCM interface for audio applications**
- **Custom firmware production available**
- **RoHS Compliance**

Description

The **Bluetron™ BTR300S module** from AvantWave is a complete Bluetooth®solution for fast implementation, cutting your time-to-market. It is a short-range, compact and cost effective radio/baseband module that can be implemented in any kind of electronic devices, such as cell phones, PDAs and digital cameras

In standard configuration the module includes a baseband processor with on board 4Mbit ROM memory, a radio front-end, antenna interface, supporting circuitry, together with Bluetooth® HCI protocol stack.

The **Bluetron™ BTR300S module** is a power class 2 Bluetooth® devices, and is in compliance with version 2.0 + EDR of the Bluetooth® specification. It is supplied with Bluetooth® protocol stack firmware, which runs on the internal microprocessor. **Bluetron™ BTR300S module** is built on CSR BC04 ROM EDR core with a 4Mbit integral ROM memory for firmware and application software storage.

Applications

- Mobile phones
- Smart phones
- Digital cameras
- PDAs and other portable terminals
- Printers
- Home Entertainment

Technical Data

Hardware

- Bluetooth® Class 2 radio (up to 10 meters)
- Nominal output power 0.5 dBm
- Nominal sensitivity –79 dBm
- Uses 2.4 GHz ISM band
- Based on CSR BC04 ROM EDR chipset
- Host processor interface with UART, USB
- Supply voltage: 3.3V and 1.8V DC
- Power consumption:
  Link active: 25mA (Min.), 35mA (Max.)
  SCO connection HV3 in sniff mode: 17 mA
  Link active in park mode: 0.18 mA
  Idle with Deep Sleep mode: 0.85 mA
- Size: 11 mm(W) x 11 mm(L) x 2.15mm (T)
- Operating temperature: -20°C to +70°C
- Reference designs and antennas available for several architectures

Firmware/Software

- Headset, Hands-free firmware avaliable
- Possible to use a customized firmware

Certifications

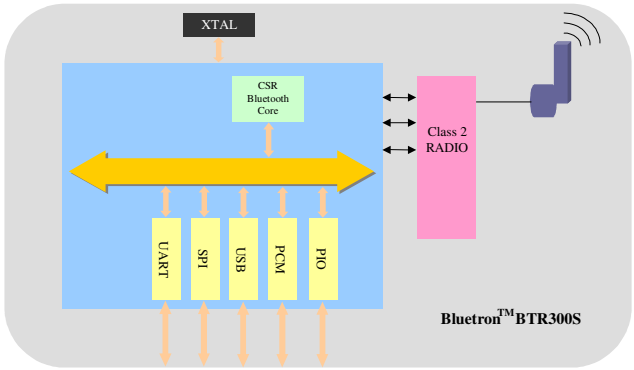
- Bluetooth® version 2.0 + EDR

Development and Evaluation

- **Bluetron™** On-board Installation Kit
  (Firmware and parameters installation)

Configuration

The **BTR300S** is based on the scalable **Bluetron™** architecture. This configuration allows embedded stand-alone Bluetooth® applications where your target application is embedded within the module, in addition to traditional host-based applications. This possibility is especially useful in portable type applications like cell phone and PDA. The variety of external interfaces also makes the **BTR300S** ideally suited for various applications in desktop and mobile computing environments, cell phone and cordless headset.



Antenna interface

50Ω Bluetooth ISM Band antenna (2.4-2.5 GHz)

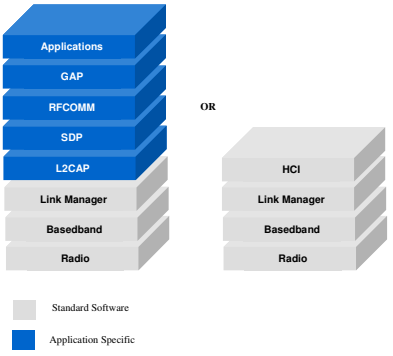
Communication Interface

Communication is carried out using a wide range of external interfaces like high-speed UART, SPI, USB (Universal Serial Bus), PCM and PIO.

Software

The standard software includes Bluetooth protocol layers up to the HCI-layer or RFCOMM-layer.

In addition, a variety of Bluetooth stacks for host- and embedded applications with different configuration could be offered. Please contact with our sales representatives at sales@avantwave.com or call us directly at 852-2648-9887.



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