



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Integrating Bluetooth communication in to your final product has never been easier. The new PAN1455/1555 Bluetooth module series include on-board microcontrollers that optionally include multiple BT profiles, including SPP, HSP, HFP and HDP.

The new PAN1455/1555 Bluetooth module series are based upon Cambridge Silicon Radio's BlueCore6-ROM (BC06). The PAN1555 includes an integrated ceramic antenna while the PAN1455 is excellent for projects requiring an external antenna. These modules are compatible with the Bluetooth Specification - 2.0 + Enhanced Data Rate (EDR) up to 3Mbits/s. The products deliver greater simplicity of use, lower power consumption and enhanced security. PAN1455/1555 Bluetooth module series are 100% footprint compatible with their predecessors the PAN1450/1550, are backward compatible with older Bluetooth devices (back to version 1.1) and do not require qualification.



## Product Performance:

- Fully Qualified Bluetooth v2.0 +EDR
- Dimensions:
  - PAN1455 - 18.75mm x 13.5mm x 2.85mm
  - PAN1555 - 22.75mm x 13.5mm x 2.85mm
- Full Product Qualification (Bluetooth, CE, FCC, IC)
- Operating Temperature Range: -40°C to +85°C
- Supply Voltage Range: 2.7V to 3.6V, typ. 3.3V
- Profiles: GAP, SDAP, SPP, HID And HDP Available, Others Can Be Supported On Request
- CSR BlueCore6-ROM Inside
- Cortex-M3 ST32F103 Core For Embedded Profiles Or Application Software
- Fast Connection Setup
- Support For 802.11 Coexistence

## Interfaces:

- UART (Programmable Baud Rate), USB, I<sup>2</sup>C, SPI And ADC
- 18 GPIOs For Individual Usage For Your Embedded Software
- All Bluetooth Data Rate Up To 2178kbps Asymmetric
- PCM Interface Master/Slave supporting 13 or 16 bit linear, 8 bit  $\mu$ -law Or A-law Codecs And CVSD Transcoders On Up To 3 SCO Channels.

## Radio Features:

- High Sensitivity Design (-86 dBm Typ.)
- Full 8 To 128 bit Encryption
- Power Control And RSSI, Hold, Park And Sniffmode
- Support For Very Low Power Modes: Sleep and Deep sleep

## Part Numbers:

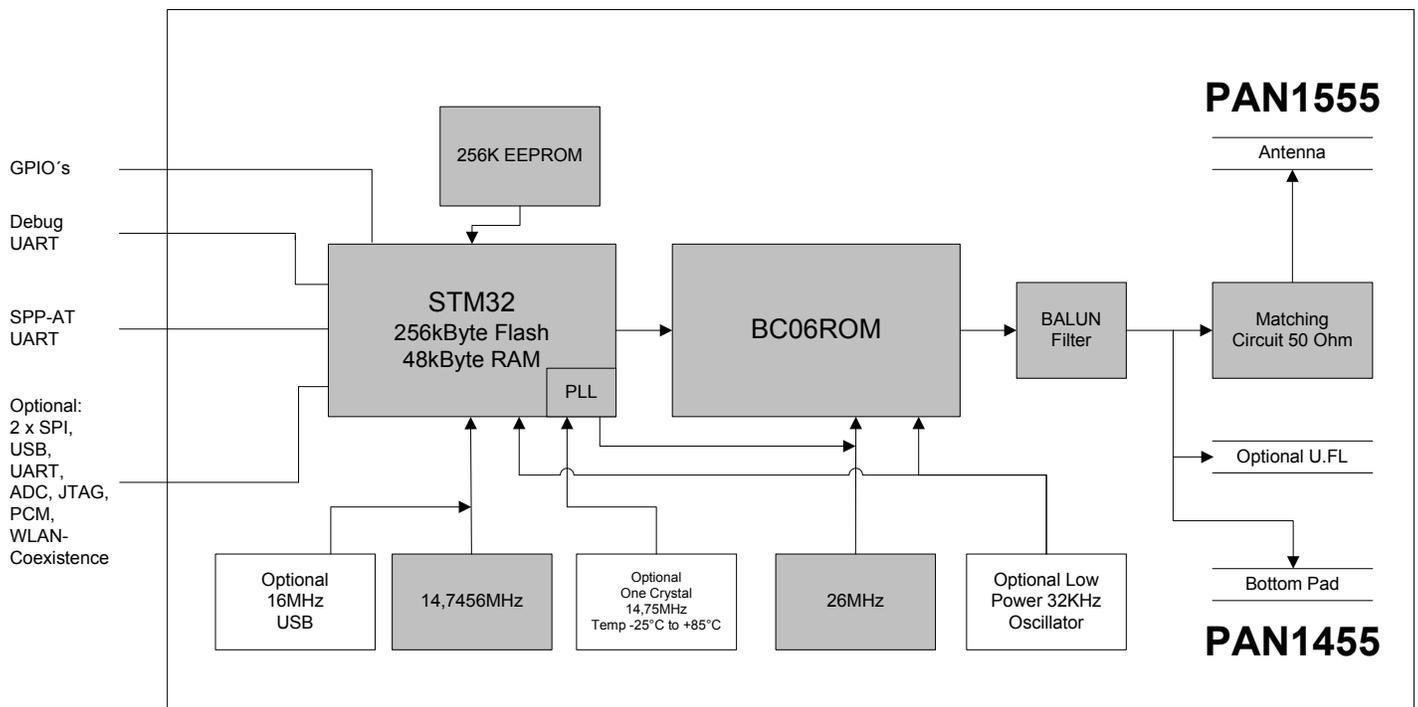
Part Number	Description
ENW89815A3KF	PAN1555, CSR, BC06, SPP Profile, Integrated Antenna
EVAL_PAN1555	Evaluation Kit For The PAN1555 Module
ENW89815C3KF	PAN1455, CSR, BC06, SPP Profile, Integrated Antenna
EVAL_PAN1455	Evaluation Kit For The PAN1455 Module

## Applications:

- Printers & Printer Adapters
- Access Points
- Wireless Sensors
- Industrial Applications
- Cable Replacement
- Personal Digital Assistants (PDAs)
- Personal Navigation Devices
- Automotive Applications
- Medical Applications



## Block Diagram:



## Technical Specifications:

Parameter	Value	Condition / Notes
Receiver Sensitivity (BER=10 <sup>-3</sup> )	-86 dBm typ.	ideal wanted signal
Output Power	+4 dBm typ.	
Power Supply	2.7 - 3.6 V	Single operation voltage
Ultra Low Power Mode	< 100 $\mu$ A	T = 25°C
ACL (connected DH5)	50.5 mA to 49.5 mA	max power to min power *
ACL (connected DH1)	48.0 mA to 46.0 mA	max power to min power *
Operating Temperature Range	-40°C to + 85°C	Storage up to +125°C

\* Figure indicates to the shortest poll period and to the slave mode