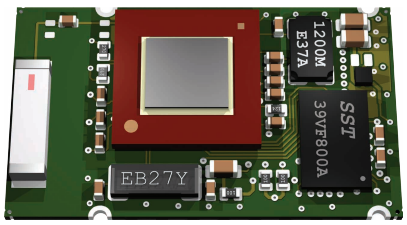
Panasonic
ideas for life

Cut the Cable™

Bluetooth-Module PAN1550



OUTLINES - ENW89805J

Now you can integrate Bluetooth very easy in your final product, without qualification – with the PAN1550. It has a serial interface and additional interfaces for integration into your system.
The PAN1550 is manufactured in a 22,8 x 13,4 x 2,2 mm³ (height: w/o casing) SMD package with an integrated ceramic antenna and has been qualified as a Bluetooth 1.2 product.
Re-qualification of your product is usually not required.
This is why the PAN1550 is particularly suited for units produced in smaller or medium quantities.
Any customizations for the software can be handled with our recommended partners.

FEATURES

Overview
- Embedded Bluetooth Stacks including SPP, GAP and SDAP Profile available, other profiles supported on request
- Embedded applications supported
- Full product qualification (typically no re-qualification is needed)

Basic Features
- Adaptive frequency hopping (AFH) enabled (1.2)
- High throughput (>600 kbps)
- Hold-, Park- and Sniffmode
- Up to 128 bit encryption
- Audio capability on an SCO channel
- Support for very low power modes - sleep and deep sleep
- All bluetooth data rates (up to 57,6/723,2Kbps)

Interfaces
- Full-speed USB version 2.0 compliant
- Programmable baud rate UART (300 bps - 921,6 Kbps)
- Debug UART (DUART)
- Up to 16 General Purpose I/O's (interruptible)
- PCM audio (1 channel)
- SPI and JTAG interface

Radio Features
- High sensitivity design (-86 dBm typ.)
- Integrated ceramic antenna and RF shield

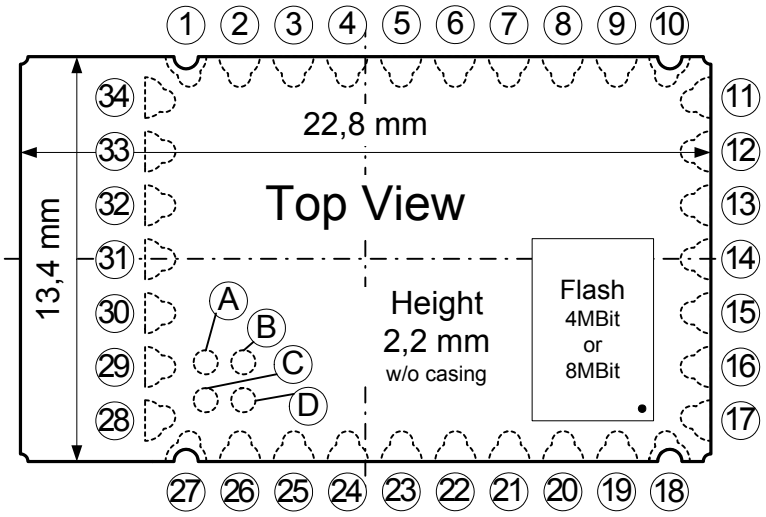
BLUETOOTH QUALIFIED B01839 PRODUCT

MODULES WIRELESS

APPLICATIONS

All Embedded Wireless Applications
- Printer Adapters
- Printers
- Access Points
- Wireless Sensors
- Industrial Applications
- Cable Replacement
- Personal Digital Assistants (PDAs)
- PC Motherboards & - Peripherals
- Scanners
- Mono & Stereo Audio Applications

DIMENSIONS



No.	Name
1	GND
2	NC
3	UART-CTS
4	UART-RXD
5	UART-TXD
6	UART-RTS
7	PCM-CLK [9]
8	PCM-OUT [10]
9	PCM-SYNC [7]
10	GND
11	ATRST
12	PCM-IN [8]
13	ATDI
14	ATMS
15	CE
16	VDD
17	RESET
18	GND
19	GPIO [14]

No.	Name
20	GPIO [13]
21	IF-SEL [15]
22	GPIO [6]
23	ATDO
24	ATCK
25	SPI-CLK [3]
26	SPI-DO [0]
27	GND
28	SPI-CS [2]
29	SPI-DI [1]
30	DUART-TXD [5]
31	DUART-RXD [4]
32	USB-DM
33	USB-DP
34	INT 0
A	PA-CONTRL
B	TX-EN [12]
C	RX-EN [11]
D	NC

TECHNICAL CHARACTERISTICS

Parameter	Value	Condition / Note
Receiver Sensitivity (BER=10^{-3})	-86 dBm	with DH5 package
Output Power	0 dBm typ.	max. 4 dBm
Power Supply	3,3 V	Single operation voltage
Deep Sleep Power Consumption	<0,5 mW	140µA@3,3V 32kHz Crystal is on board
Data over USB at max. throughput	<145 mW	43mA@3,3V
Sniffmode (Tsniff 375ms), no traffic	<7,5mW	2,2mA@3,3V
Operating Temperature Range	-25°C to +85°C	