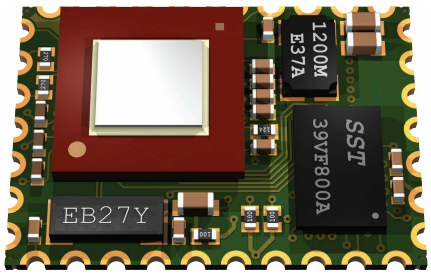
Panasonic
ideas for life

Cut the Cable ™

Bluetooth-Module PAN1450



OUTLINES - ENW89803J

The PAN1450 provides wireless interface per the BT 1.2 specification. Interoperability and BT compliance testing have been completed for the BT Chip ZV4301 from Zeevo, Inc. to facilate rapid time-to-market.
The BT Chip incorporates a widely popular 32-bit ARM7TDMI™ CPU core with sufficient bandwidth to support a wide range of embedded µController applications and the module provides full ARM7 software development access.
The PAN1450 is manufactured in a 13,4 x 18,7 x 2,2 mm³ SMD package and the only external component needed is an 50 ohm antenna.
Any customizations for the software can be handled with our recommended partners.

FEATURES

Overview
- Inquiry results with RSSI (1.2)
- 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)

User Interfaces
- Full-speed USB version 2.0 compliant
- Programmable baud rate UART (9,6 Kbps - 921,6 Kbps)
- Debug UART (DUART)
- 16 General Purpose I/O's (interruptible)
- PCM audio (1 channel)
- SPI and JTAG interface

Radio Features
- High sensitivity design (-86 dBm typ.)
- Integrated RF shield
- Class 2 module (0dBm typ. output power)
- One antenna port

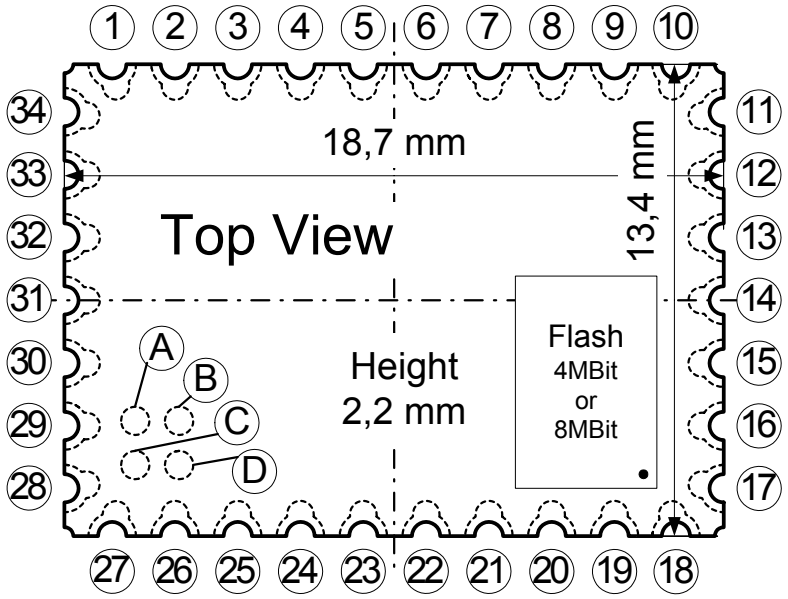
BLUETOOTH QUALIFIED B01839 PRODUCT

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	ANT
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	