

Key Features

- ◆ Fully Qualified Bluetooth V2.1+EDR
- ◆ Bluetooth Class 1 (100M)
- ◆ Enhanced Data Rate (EDR) compliant with V2.0.E.2 of the specification for both 2Mbps and 3Mbps modulation modes
- ◆ Full Speed Bluetooth Operation with full Piconet and Scatternet Support
- ◆ Low power 1.8V operation
- ◆ USB, UART, PCM interface
- ◆ Support for 802.11 Co-Existence.

CSR, BC417143 B-IRN-E4

V 3.0

2011. 12. 25



Product Description

The 405 is a Bluetooth module based on CSR BC04 External chipsets with an antenna integrated. It is Class1 BT module. When used with the CSR Bluetooth software stack, it provides a fully compliant Bluetooth system to v2.1 of the Bluetooth specification for data and voice communications.

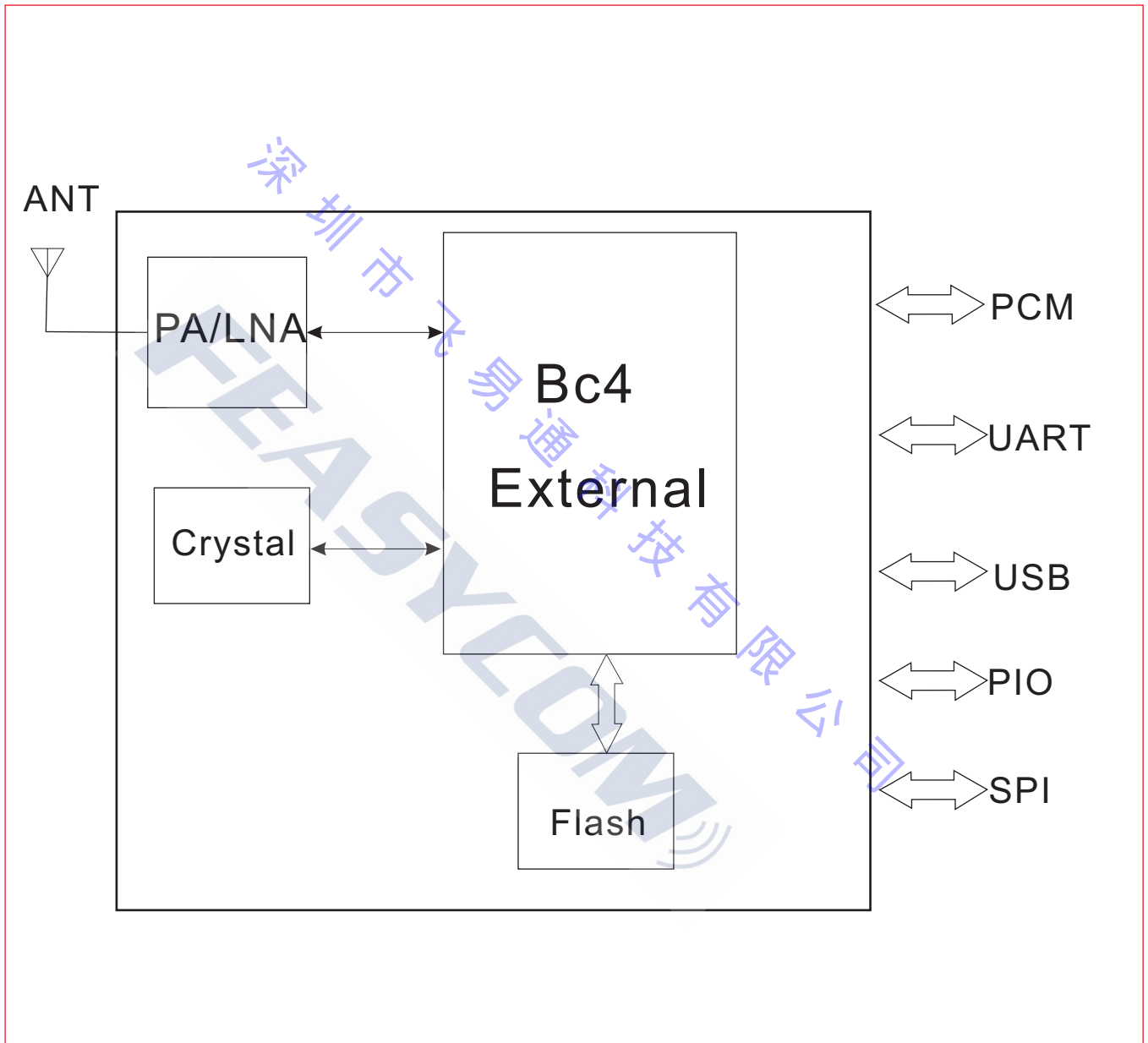
Applications

- ◆ PCs
- ◆ Personal Digital Assistants(PDAs)
- ◆ Computer Accessories
- ◆ Access Points
- ◆ Digital Cameras

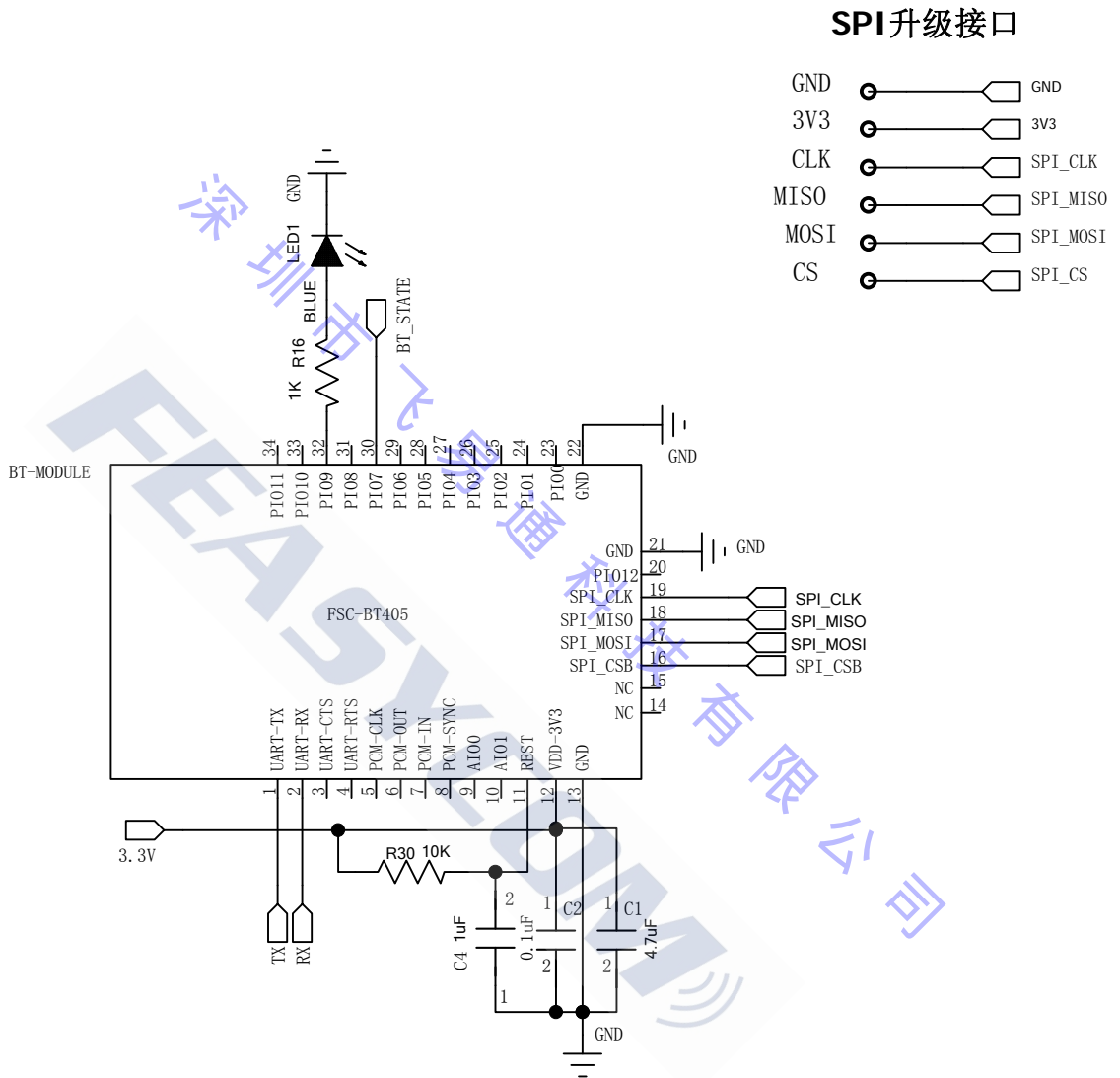
General Specification

NO	Item	Specification
1	Supply Voltage	3.3V
2	Work Range	100M
3	Working current	110-180 mA
4	Carrier Frequency	2400MHZ-2483.5MHZ
5	Transmission Power	15dbm MAX
6	Hopping	1600hops/sec,1M channel space
7	Receiving Signal Range	-80 to -85 dbm Typ
8	Communication range	10 meters Typ
9	Operating Temperature	-10to +45 degree C
10	Storage Temperature	-10~ +70 degree C
11	Compliant	Bluetooth Specification Ver1.1 & 1.2 & V2.0

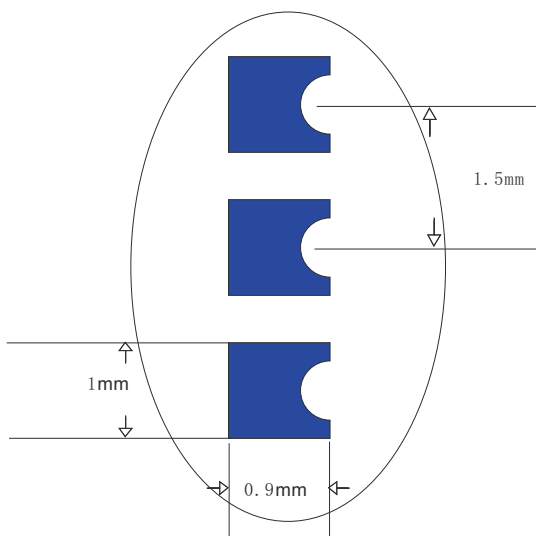
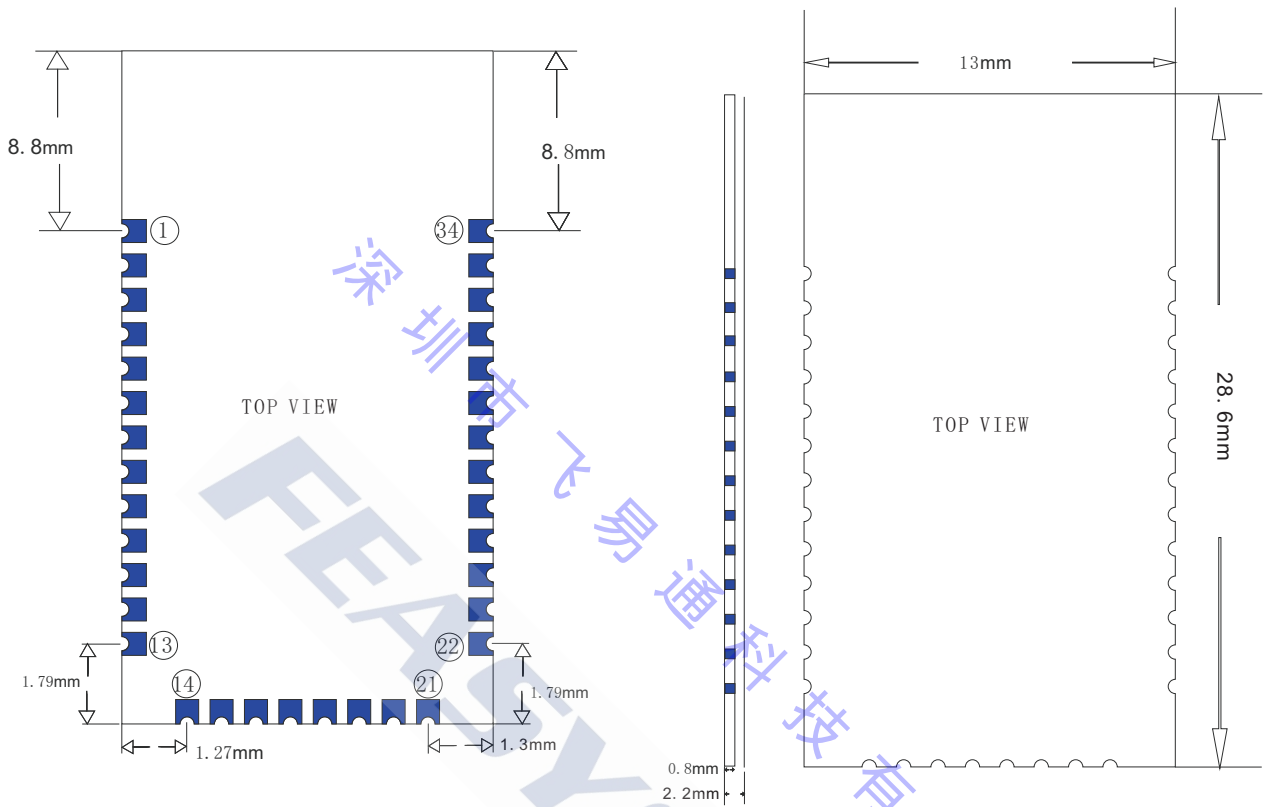
Block Diagram



Application Schematic



型号: BT405



NO	PIN NAME	NO	PIN NAME
1	UART-TX	18	SPI-MISO
2	UART-RX	19	SPI-CLK
3	UART-CTS	20	USB D+
4	UART-RTS	21	GND
5	PCM-CLK	22	GND
6	PCM-OUT	23	PIO(0)
7	PCM-IN	24	PIO(1)
8	PCM-SYNC	25	PIO(2)
9	AIO(0)	26	PIO(3)
10	AIO(1)	27	PIO(4)
11	RESET	28	PIO(5)
12	3.3V	29	PIO(6)
13	GND	30	PIO(7)
14	NC	31	PIO(8)
15	USB D-	32	PIO(9)
16	SPI-CSB	33	PIO(10)
17	SPI-MOSI	34	PIO(11)

Pin Configurations

PIN NO.	NAME	TYPE	FUNCTION	RE-MARK
1	UART-TX	CMOS Output	UART Data Output	
2	UART-RX	CMOS Input	UART Data Input	
3	UART-CTS	CMOS Input	UART Clear To Send Active Low	
4	UART-RTS	CMOS Output	UART Request To Send Active Low	
5	PCM-CLK	Bi-directional	Synchronous Data Clock	
6	PCM-OUT	CMOS Output	Synchronous Data Output	
7	PCM-IN	CMOS Input	Synchronous Data Input	
8	PCM-SYNC	Bi-directional	Synchronous Data Sync	
9	AIO(0)	Bi-directional	Programmable Input/Output Line	
10	AIO(1)	Bi-directional	Programmable Input/Output Line	
11	RESETB	CMOS Input	Reset if low. Input debounced so must be low for >5ms to cause a reset	
12	3.3V	POWER	+3.3V Supply	For 3.3V Version
13	GND	GND	Ground	
14	NC	NC		
15	USB D-	Bi-directional	USB Data Minus	
16	SPI-CSB	CMOS Input	Chip Select For Synchronous Serial Interface	
17	SPI-MOSI	CMOS Input	Serial Peripheral Interface Data Input	
18	SPI-MISO	CMOS Output	Serial Peripheral Interface Data Output	
19	SPI-CLK	CMOS Input	Serial Peripheral Interface Clock	
20	USB D+	Bi-directional	USB Data Plus with selectable internal $1.5k\Omega$	
21	GND	GND	Ground	
22	GND	GND	Ground	
23	PIO(0)	Bi-directional with programmable strength	Control output for external LNA (if fitted)	
24	PIO(1)	Bi-directional with programmable strength	Control output for external PA (if fitted)	
25	PIO(2)	Bi-directional	Programmable Input/Output Line	
26	PIO(3)	Bi-directional	Programmable Input/Output Line	
27	PIO(4)	Bi-directional with programmable strength	Programmable Input/Output Line or optional BT Priority/CH Clk output for co-	
28	PIO(5)	Bi-directional with programmable strength	Programmable Input/Output Line or optional BT Active output for co-existence	
29	PIO(6)	Bi-directional with programmable strength	Programmable Input/Output Line or optional WLAN Active/Ch Data input for co-	
30	PIO(7)	Bi-directional	Programmable Input/Output Line	
31	PIO(8)	Bi-directional	Programmable Input/Output Line	
32	PIO(9)	Bi-directional	Programmable Input/Output Line	
33	PIO(10)	Bi-directional	Programmable Input/Output Line	
34	PIO(11)	Bi-directional	Programmable Input/Output Line	