



## DFBM-CH120

### DFBM-CH120 Bluetooth™ Module Class 2

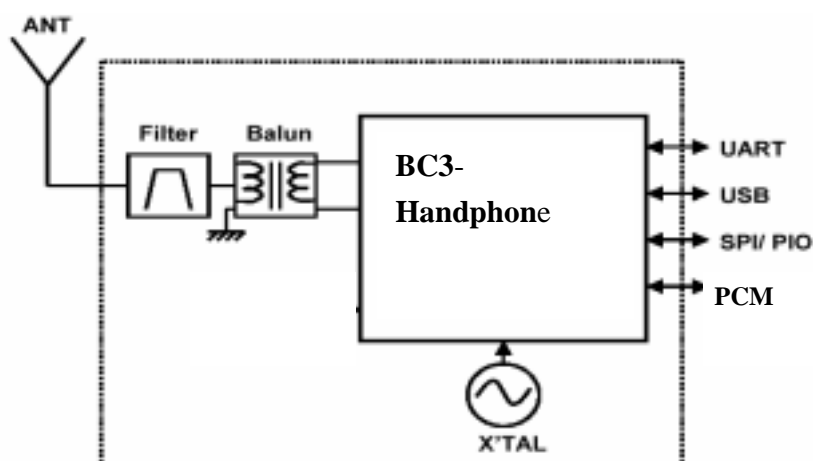
**Wireless communication  
module compliant with  
Bluetooth™ Specification V1.1.**



### FEATURES:

- **Suitable for Cellular Phones, Notebook PCs, PDAs, Digital Cameras, Printers ....., etc.**
- **Small size and Low Profile using high-density packaging technology.**
- **High sensitivity for better reception.**
- **Various interfaces: UART, USB and PCM.**
- **Wide operating temperature range: -40~+85 .**

### Device diagram





## DFBM-CH120

### General Specification

<b>Bluetooth Specification</b>	<b>Version 1.1</b>
<b>Frequency</b>	<b>2402~2480MHz</b>
<b>Modulation</b>	<b>FHSS/GFSK</b>
<b>Transmission Rate</b>	<b>721kbps</b>
<b>Receive Sensitivity</b>	<b>Typ. -78dBm</b>
<b>Maximum Output Power</b>	<b>+4dBm(Class 2)</b>
<b>Operating Voltage</b>	<b>2.2~3.6V</b>
<b>Operating Temperature</b>	<b>-40~+85</b>
<b>Antenna Impedance</b>	<b>50</b>
<b>Package Size</b>	<b>10.5x10.5x2.0 mm</b>



## DFBM-CH120

### Interface

Interface	Description
Antenna	External Antenna 50
UART Interface	TX, RX, RTS, CTS(9600bps~1.5Mbps)
SPI Interface	Synchronous Serial Interface for firmware download
USB Interface	Full speed Universal Serial Bus interface
PCM Codec	Qualcomm MSM 3000/5000 , Motorola MC145483/ MC145481 OKI MSM7705 , STW 5093/5094
PIO Interface	8 terminals
AIO Interface	2 terminals

### Pin description

Pin No.	Name	Description
1	Reset	An active high reset
2	AIO_1	Analogue Programmable input/output
3	AIO_0	Analogue Programmable input/output
4	ANT	RF input/output



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5	Gnd	Ground
6	NC	Not Connected
7	NC	Not Connected
8	NC	Not Connected
9	NC	Not Connected
10	Vdd_1.8V	Supply Voltage (1.8V)
11	Vdd_3.15V	Supply Voltage (3.15V)
12	USB_DP	USB data plus with selectable internal 1.5kohm pull-up resistor
13	USB_DN	USB data minus
14	Gnd	Ground
15	UART_RTS	UART request to send active low
16	UART_CTS	UART clear to send active low
17	UART_RX	UART data input active high
18	UART_TX	UART data output active high
19	PCM_CLK	Synchronous data clock
20	PCM_SYNC	Synchronous data sync
21	PCM_OUT	Synchronous data output
22	PCM_IN	Synchronous data input
23	Gnd	Ground
24	SPI_CSB	Chip select for Serial Peripheral Interface,



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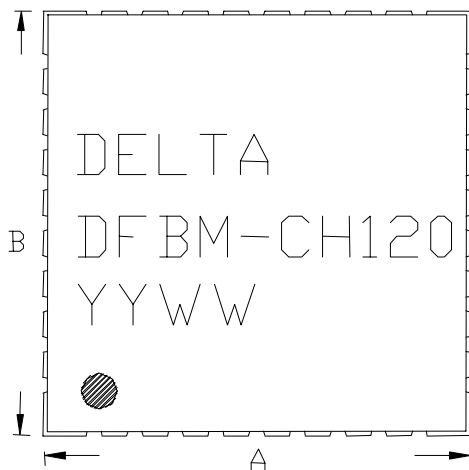
		active low
25	SPI_CLK	Serial Peripheral Interface clock
26	SPI_MOSI	Serial Peripheral Interface data input
27	SPI_MISO	Serial Peripheral Interface data output
28	PIO_11	Programmable input/output line
29	PIO_9	Programmable input/output line
30	PIO_5	Programmable input/output line
31	PIO_4	Programmable input/output line
32	Gnd	Ground
33	PIO_3	Programmable input/output line
34	PIO_2	Programmable input/output line
35	PIO_1	Programmable input/output line
36	PIO_0	Programmable input/output line



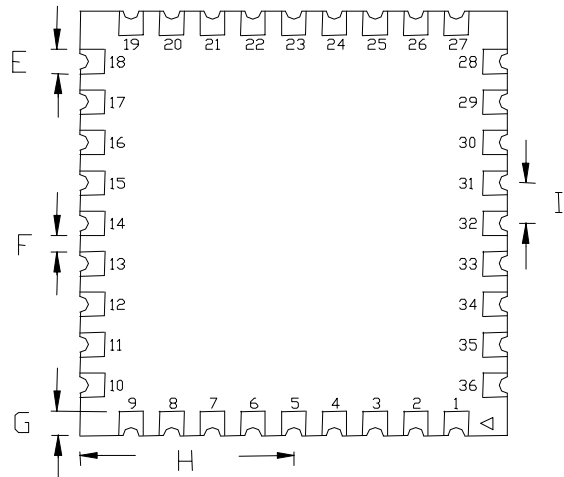
# DFBM-CH120

## Dimensions (mm)

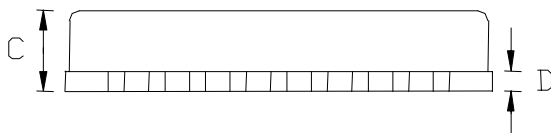
TOP VIEW



BOTTOM VIEW



SIDE VIEW



Unit:mm

A	10.5±0.2	D	0.5±0.1	G	0.6±0.1
B	10.5±0.2	E	0.6±0.1	H	5.25±0.1
C	2.0 max	F	0.4±0.1	I	1.0±0.1

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