# NAU0004 Manual

## Description

The NAU0004 is a fully integrated Class 2 radio and baseband module conforming to ver. 1.2 and ver 2.0 of the Bluetooth specification. It contains the DSP, co-processor supporting enhanced audio applications.

The NAU0004 is the Bluetooth module for Car Entertainment System.

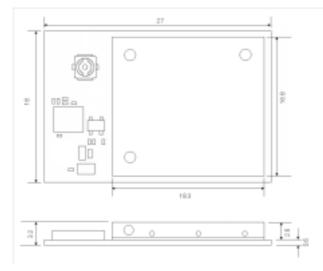
### Features

- Audio In/Out, PCM, UART, SPI, PIO, AIO interfaces, enabling a wide range of applications.
- 8M-bit on-module flash memory
- Voltage regulator : internal 1.8V regulator
- Based on the Bluecore 3-Multimedia External from  $\ensuremath{\mathrm{CSR}}$
- Channel quality driven data rate

## **General Specifications**

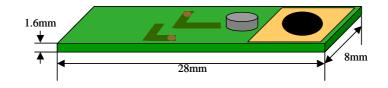
#### [Module]

- Antenna connector impedance:  $50\Omega$
- External interfaces: Audio In/Out, PCM, UART, PIO, AIO
- Supply voltage: 2.90 to 3.60 V
- Package dimensions: 27  $\times$  18  $\times$  3.2mm



## [Antenna]

- Pattern Antenna
- Coaxial connector mounted
- PCB dimensions: 28 × 8 × 1.6mm



## [Antenna cable]

Two Coaxial connectors



## Specifications

| Item                  | Specifications                             |
|-----------------------|--|
| Frequency             | $2402 \ \mathrm{to} \ 2480 \ \mathrm{MHz}$ |
| Modulation            | FHSS / GFSK                                |
| Channel intervals     | 1MHz                                       |
| Number of channels    | 79CH                                       |
| Output power(Average) | +4dBm(max)                                 |

## FCC Regulatory Information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules.

These limits are designed to provide reasonable protection against harmful interference in a residential installation.

This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.

- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or an experienced radio/TV technician for help.

#### FCC WARNING:

Change or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

#### RF exposure compliance :

This module has very low levels of RF energy that it deemed to comply without maximum permissive exposure evaluation (MPE).

But it is desirable that it should be installed and operated with at least 20cm and more between the radiator and person's body (excluding extremities: hands, wrists, feet and legs).

#### FCC 15.19(3) required statement:

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

## IC(Industry of Canada) Regulatory Information

" Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference received, including interference that may cause undesired operation of the device."

"To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (EIRP) is not more than that required for successful communication."

#### **RF Exposure Statement:**

"The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website www.hc-sc-gc.ca/rpb"

#### **ICES-003 Statement:**

This Class B digital apparatus complies with Canadian ICES-003.

Cet apparei numérique de la class B est conforme à la norme NMB-003 du Canada.

#### CAUTION

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