User manual

(for EJ5340)

FCC ID: 2A6NFEJ5340

IC: 28568-EJ5340

KAGA FEI Co., Ltd.

This module should be installed in the host device according to the interface specification.

1) Japan Regulatory Information
   a) This Product is a radio system and obtained certification of construction type combined with the specific antenna.
   b) Please ensure that your product has a label with the following certification mark at easily viewable location. If your product is too small to have the label, please place it in the instruction manual and package of your product. The mark diameter shall be easily legible. In case your product does not have the label with the following certification mark, you or your customer who uses your product may be against the Radio Law and subjected to criminal punishment. KAGA FEI shall not be liable for any loss or damage incurred by you or your customer arising from use of your product which does not have following certification mark.

      This product installs a radio system which has been approved as a radio station in a low power data communication system based on the Radio Law.
      EJ5340 : 005-103334

005-103334

2) Canada Regulatory Information
   The following information must be indicated on the host device of this module;
   a) This device complies with Innovation, Science and Economic Development Canada's applicable licence-exempt RSSs. Operation is subject to the following two conditions:
      (1) This device may not cause interference; and
      (2) This device must accept any interference, including interference that may cause undesired operation of the device.

      Le présent appareil est conforme aux CNR d' Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :
      1) l'appareil ne doit pas produire de brouillage;
      2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

   b) This product is certified as type of the portable device with Innovation, Science and Economic Development Canada Rules. To maintain compliance with RF Exposure requirement, please use within specification of this product.

      Ce produit est certifié comme type de l'appareil portable avec Règles de Innovation, Sciences et Développement économique Canada. Pour maintenir l'acquiescement avec exigence Exposition de RF, veuillez utiliser dans spécification de ce produit.
      - IC: 28568-EJ5340

   c) Please notify certified ID on your product.
      -Contains IC : 28568-EJ5340
      Veuillez indiquer le numéro d'identification certifié sur votre produit.
      -Contains IC : 28568-EJ5340

3) FCC Regulatory Information
   a) This device complies with part 15 of the FCC Rules.
      -Part 15 Subpart C
   b) The following statement shall be indicated on the host device or the user manual of the host device; 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.
   c) Please notify certified ID by either one of the following method on your product.
      -Contains Transmitter Module FCC ID: 2A6NFEJ5340
      -Contains FCC ID: 2A6NFEJ5340
   d) Since there is no space which indicates FCC ID on this module, FCC ID is indicated in a manual. If the FCC ID is not visible when the module is installed inside another device, then the module is installed must also display a label referring to the enclosed module.
   e) The following statement shall be indicated in the user manual of the host device; CAUTION: Changes or modifications not expressly approved by the party responsible for compliance could void the use's authority to operate the equipment.
   f) The modular transmitter is only FCC authorized for the specific rule parts (Part 15 Subpart C) listed on the grant, and the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification. The final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed.
   g) This product is certified as type of the portable device with FCC Rules. To maintain compliance with RF Exposure requirement, please use within specification of this product.
   h) The following statement shall be indicated in the user manual of the host device; The antenna used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
   i) The module installer shall integrate the module within the range (including output power) under which the module is certified, by means of application software depending on the circumstances. The module installer must follow the integration instructions provided by Kaga FEI and ensure that the end product complies with the FCC requirements. Any end user cannot change the output power. The test software is developed by Kaga FEI, and during regulatory testing the output power is set to maximum power.
   j) Antenna List

No.1	
Antenna Category	Monopole
Antenna Type	PCB antenna
Dimensions	3.45mm x 4.7mm

4) CE Regulatory Information
   a) When your end product installs this module, it is required to proceed additional certification processes before placing on the market in EU member states to make your products fully comply with relative EU standards.
   b) KAGA FEI can provide you the test reports of conducted measurement portion for the radio module. You can utilize the test reports for the certification processes of your end product as it requires radio testing.

Control No. (1/3)	Control name Pin Layout

Pin Descriptions

Pin	Pin name	Pin function	Description
1	GND	Ground	Ground
2	P0.08 TRACEDATA3 SCK	Digital I/O Trace data SCK for SPIM4	General purpose I/O Trace buffer TRACEDATA[3] Dedicated pin for high-speed SPI
3	P0.03 NFC2	Digital I/O NFC input	General purpose I/O NFC antenna connection
4	P0.02 NFC1	Digital I/O NFC input	General purpose I/O NFC antenna connection
5	P0.00 XL1	Digital I/O Analog input	General purpose I/O Connection for 32 kHz crystal
6	P0.01 XL2	Digital I/O Analog input	General purpose I/O Connection for 32 kHz crystal
7	VDD	Power	Power supply
8	VDDH	Power	Power
9	VBUS	Power	Power supply
10	D-	USB	USB D-
11	D+	USB	USB D+
12	GND	Ground	Ground
13	GND	Ground	Ground
14	OUT_ANT	Antenna In/Out	Internal antenna. It should be connected to **Pin15** OUT_MOD for normal operation
15	OUT_MOD	Antenna In/Out	Internal antenna. It should be connected to **Pin14** OUT_ANT for normal operation
16	GND	Ground	Ground
17	P0.23	Digital I/O	General purpose I/O
18	P0.29	Digital I/O	General purpose I/O
19	SWDIO	Debug	Serial wire debug I/O for debug and programming
20	SWDCLK	Debug	Serial wire debug clock input for debug and programming

Control No. (2/3)	Control name Pin Layout

Pin	Pin name	Pin function	Description
21	nRESET	Reset	Pin RESET with internal pull-up resistor
22	P0.27 AIN6	Digital I/O Analog input	General purpose I/O Analog input
23	P0.25 AIN4	Digital I/O Analog input	General purpose I/O Analog input
24	GND	Ground	Ground
25	P0.19	Digital I/O	General purpose I/O
26	P0.20	Digital I/O	General purpose I/O
27	P1.02 TWI	Digital I/O TWI 1 Mbps	General purpose I/O High-speed pin for 1 Mbps TWI
28	P1.03 TWI	Digital I/O TWI 1 Mbps	General purpose I/O High-speed pin for 1 Mbps TWI
29	P0.12 TRACECLK DCX	Digital I/O Trace clock DCX for SPIM4	General purpose I/O Trace buffer clock Dedicated pin for high-speed SPI
30	P0.09 TRACEDATA2 MOSI	Digital I/O Trace data MOSI for SPIM4	General purpose I/O Trace buffer TRACEDATA[2] Dedicated pin for high-speed SPI
31	P0.10 TRACEDATA1 MISO	Digital I/O Trace data MISO for SPIM4	General purpose I/O Trace buffer TRACEDATA[1] Dedicated pin for high-speed SPI
32	P0.11 TRACEDATA0 CSN	Digital I/O Trace data CSN for SPIM4	General purpose I/O Trace buffer TRACEDATA[0] Dedicated pin for high-speed SPI
33	P0.07 AIN3	Digital I/O Analog input	General purpose I/O Analog input
34	P0.06 AIN2	Digital I/O Analog input	General purpose I/O Analog input
35	P0.04 AIN0	Digital I/O Analog input	General purpose I/O Analog input
36	P0.05 AIN1	Digital I/O Analog input	General purpose I/O Analog input
37	P0.30	Digital I/O	General purpose I/O
38	DECUSB	Power	USB 3.3 V regulator supply decoupling
39	P0.13 IO0	Digital I/O IO0 for QSPI	General purpose I/O Dedicated pin for Quad SPI
40	P0.14 IO1	Digital I/O IO1 for QSPI	General purpose I/O Dedicated pin for Quad SPI

Control No. (3/3)	Control name Pin Layout

Pin	Pin name	Pin function	Description
41	P0.15 IO2	Digital I/O IO2 for QSPI	General purpose I/O Dedicated pin for Quad SPI
42	P0.16 IO3	Digital I/O IO2 for QSPI	General purpose I/O Dedicated pin for Quad SPI
43	P0.18 CSN	Digital I/O CSN for QSPI	General purpose I/O Dedicated pin for Quad SPI
44	P0.17 SCK	Digital I/O SCK for QSPI	General purpose I/O Dedicated pin for Quad SPI
45	P0.28 AIN7	Digital I/O Analog input	General purpose I/O Analog input
46	P0.26 AIN5	Digital I/O Analog input	General purpose I/O Analog input
47	P0.24	Digital I/O	General purpose I/O
48	P0.21	Digital I/O	General purpose I/O
49	P0.22	Digital I/O	General purpose I/O