

EG25-G is an LTE-FDD/LTE-TDD/WCDMA/GSM wireless communication module with receive diversity. It provides data connectivity on LTE-FDD, LTE-TDD, DC-HSDPA, HSPA+, HSDPA, HSUPA, UMTS, EDGE

The following table shows the supported frequency bands.

**Table 1: Supported Frequency Bands**

Frequency Bands/ GNSS Function/ Digital Audio	EG25-G
LTE-FDD (with receive diversity)	B2/B4/B5/B7/B25/B26
LTE-TDD (with receive diversity)	B38/B41
WCDMA (with receive diversity)	WCDMA B2/WCDMA B4
GSM	850/1900 MHz

With a compact profile of 29.0 mm × 32.0 mm × 2.4 mm, EG25-G can meet almost all requirements for M2M applications such as automotive, smart metering, tracking system, security, router, wireless POS, mobile computing device, PDA phone, tablet PC, etc.

## **FCC Statement**

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.

This equipment 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.

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

Please notice that if the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following: "Contains FCC ID:2A46G-EG25-G" any similar wording that expresses the same meaning may be used.

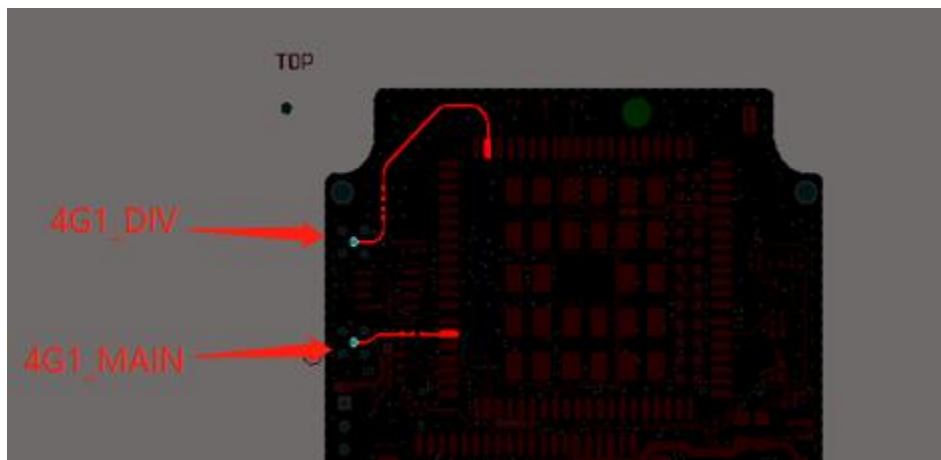
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The module is limited to OEM installation ONLY.

The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module.

The module is limited to installation in mobile application. A separate approval is required for all other operating configurations, including portable configurations with respect to Part 2.1093 and difference antenna configurations. There is requirement that the grantee provide guidance to the host manufacturer for compliance with Part 15B requirements. The module complies with FCC Part Part 02, 22 H, 24 E,27, 90S and apply for Single module approval. Trace antenna designs:

	(OHMS)	OHMS with tolerance	Line width(mil)	length (mil)
4G1_MAIN	50	$\pm 5$	12	1422
4G1_DIV	50	$\pm 5$	12	1250



The device must be professionally installed The intended use is generally not for the general public.It is generally for industry/commercial use.The connector is within the transmitter enclosure and can only be accessed by disassembly of the transmitter that is not normally required. the user has no access to the connector. Installation must be controlled. Installation requires special training This module has been assessed against the following FCC rule parts: CFR 47 FCC Part 02, 22 H, 24 E,27, 90S,( PCB) It is applicable to the modular transmitter 。

This radio transmitter FCC ID: 2A46G-EG25-G has been approved by Federal Communications Commission to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

030359F4GA ANT:

	Frequency Band		Antenna Gain (dBi)
<b>GSM850</b>	GSM850	Uplink: 824 MHz ~ 849 MHz Downlink: 869 MHz ~ 894 MHz	1.2
<b>PCS1900</b>	PCS1900	Uplink :1850 MHz ~ 1910 MHz Downlink: 1930 MHz ~ 1990MHz	2.5
<b>WCDMA</b>	Band II	Uplink: 1850 MHz ~ 1910 MHz Downlink: 1930 MHz ~1990MHz	2.5
	Band IV	Uplink: 1710 MHz ~ 1755 MHz Downlink: 2110 MHz ~ 2155MHz	2.8
<b>LTE</b>	B2	Uplink: 1850 MHz ~ 1910 MHz Downlink: 1930 MHz ~ 1990MHz	2.5
	B4	Uplink: 1710 MHz ~ 1755 MHz Downlink: 2110 MHz ~ 2155MHz	2.8
	B5	Uplink: 824 MHz ~ 849 MHz Downlink: 869 MHz ~ 894 MHz	1.2
	B7	Uplink: 2500 MHz ~ 2570 MHz Downlink: 2620 MHz ~ 2690MHz	2
	B12	Uplink: 699 MHz ~ 716 MHz Downlink: 729 MHz ~ 746 MHz	—
	B13	Uplink: 777 MHz ~ 787 MHz Downlink: 746 MHz ~ 756 MHz	—
	B25	Uplink: 1850 MHz ~ 1915 MHz Downlink: 1930 MHz ~ 1995MHz	2.5
	B26	Uplink: 814 MHz ~ 849 MHz Downlink: 859 MHz ~ 894 MHz	1.2
	B38	Uplink: 2570 MHz ~ 2620 MHz Downlink: 2570 MHz ~ 2620MHz	2
	B41	Uplink: 2496 MHz ~ 2690 MHz Downlink: 2496 MHz ~ 2690MHz	2

030374F4GA antenna:

	Frequency Band		Antenna Gain (dBi)
<u>GSM850</u>	<u>GSM850</u>	Uplink: 824 MHz ~ 849 MHz Downlink: 869 MHz ~ 894 MHz	1.2
<u>PCS1900</u>	<u>PCS1900</u>	Uplink :1850 MHz ~ 1910 MHz Downlink: 1930 MHz ~ 1990MHz	0.5
<u>WCDMA</u>	Band II	Uplink: 1850 MHz ~ 1910 MHz Downlink: 1930 MHz ~ 1990MHz	0.5
	Band IV	Uplink: 1710 MHz ~ 1755 MHz Downlink: 2110 MHz ~ 2155MHz	2.5
<u>LTE</u>	<u>B2</u>	Uplink: 1850 MHz ~ 1910 MHz Downlink: 1930 MHz ~ 1990MHz	0.5
	<u>B4</u>	Uplink: 1710 MHz ~ 1755 MHz Downlink: 2110 MHz ~ 2155MHz	2.5
	<u>B5</u>	Uplink: 824 MHz ~ 849 MHz Downlink: 869 MHz ~ 894 MHz	1.2
	<u>B7</u>	Uplink: 2500 MHz ~ 2570 MHz Downlink: 2620 MHz ~ 2690MHz	2.0
	<u>B12</u>	Uplink: 699 MHz ~ 716 MHz Downlink: 729 MHz ~ 746 MHz	--
	<u>B13</u>	Uplink: 777 MHz ~ 787 MHz Downlink: 746 MHz ~ 756 MHz	--
	<u>B25</u>	Uplink: 1850 MHz ~ 1915 MHz Downlink: 1930 MHz ~ 1995MHz	0.5
	<u>B26</u>	Uplink: 814 MHz ~ 849 MHz Downlink: 859 MHz ~ 894 MHz	1.2
	<u>B38</u>	Uplink: 2570 MHz ~ 2620 MHz Downlink: 2570 MHz ~ 2620MHz	2.0
	<u>B41</u>	Uplink: 2496 MHz ~ 2690 MHz Downlink: 2496 MHz ~ 2690MHz	2.0

030383F4GA antenna:

	Frequency Band		Antenna Gain
			(dBi)
<b>GSM850</b>	GSM850	Uplink: 824 MHz ~ 849 MHz Downlink: 869 MHz ~ 894 MHz	0.3
<b>PCS1900</b>	PCS1900	Uplink :1850 MHz ~ 1910 MHz Downlink: 1930 MHz ~ 1990MHz	2.7
<b>WCDMA</b>	Band II	Uplink: 1850 MHz ~ 1910 MHz Downlink: 1930 MHz ~1990MHz	2.7
	Band IV	Uplink: 1710 MHz ~ 1755 MHz Downlink: 2110 MHz ~ 2155MHz	2.7
<b>LTE</b>	B2	Uplink: 1850 MHz ~ 1910 MHz Downlink: 1930 MHz ~ 1990MHz	2.7
	B4	Uplink: 1710 MHz ~ 1755 MHz Downlink: 2110 MHz ~ 2155MHz	2.7
	B5	Uplink: 824 MHz ~ 849 MHz Downlink: 869 MHz ~ 894 MHz	0.3
	B7	Uplink: 2500 MHz ~ 2570 MHz Downlink: 2620 MHz ~ 2690MHz	2.7
	B12	Uplink: 699 MHz ~ 716 MHz Downlink: 729 MHz ~ 746 MHz	--
	B13	Uplink: 777 MHz ~ 787 MHz Downlink: 746 MHz ~ 756 MHz	--
	B25	Uplink: 1850 MHz ~ 1915 MHz Downlink: 1930 MHz ~ 1995MHz	2.7
	B26	Uplink: 814 MHz ~ 849 MHz Downlink: 859 MHz ~ 894 MHz	0.3
	B38	Uplink: 2570 MHz ~ 2620 MHz Downlink: 2570 MHz ~ 2620MHz	2.7
	B41	Uplink: 2496 MHz ~ 2690 MHz Downlink: 2496 MHz ~ 2690MHz	2.7

Note: Must use the same antenna type and gain equal to or lower than in the tables above.

The concrete contents to check are the following three points.

1 ) Must use the same antenna type and gain equal to or lower than in the tables above.;

2 ) Should be installed so that the end user cannot modify the antenna;

3 ) Feed line should be designed in 50ohm

Fine tuning of return loss etc. can be performed using a matching network.

## Notice to OEM integrator

Notice to OEM integrator

Must use the device only in host devices that meet the FCC RF exposure category of mobile, which means the device is installed and used at distances of at least 20cm from persons. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The end user manual shall include FCC Part 15 compliance statements related to the transmitter as show in this manual(FCC statement). Host manufacturer is responsible

for compliance of the host system with module installed with all other applicable requirements for the system such as Part 15 B, ICES 003. Host manufacturer is strongly recommended to confirm compliance with FCC requirements for the transmitter when the module is installed in the host.

Must have on the host device a label showing Contains FCC ID: 2A46G-EG25-G,  
The use condition limitations extend to professional users, then instructions must state that this information also extends to the host manufacturer's instruction manual.

This module is stand-alone modular. If the end product will involve the Multiple simultaneously transmitting condition or different operational conditions for a stand-alone modular transmitter in a host, host manufacturer have to consult with module manufacturer for the installation method in end system. Any company of the host device which install this modular should perform the test of radiated & conducted emission and spurious emission etc. according to FCC Part Part 02, 22 H, 24 E, 27, 90S, 15B class B requirement, only if the test result comply with FCC part Part 02, 22 H, 24 E, 27, 90S, 15B class B requirement. Then the host can be sold legally.

This modular transmitter is only FCC authorized for the specific rule parts ( 47CFR Part Part 02, 22 H, 24 E, 27, 90S) listed on the grant, and that 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. Host manufacturer is strongly recommended to confirm compliance with FCC requirements for the transmitter when the module is installed in the host.

Must have on the host device a label showing Contains FCC ID: 2A46G-EG25-G