SPECIFICATIONS

Product	Controller Mobile Communicator
Model	YSAR02-3G
Cellular Module Model	u-blox AG　LISA-U200
Antenna Model	Taoglas Limited　MA.110.C.AB.006.fh (Cable Length : 3m)
Bands	FCC-GSM 850/1900、CE-GSM 900/1800 FCC-UMTS 850/1700/1900、CE-UMTS 900/2100
Localization	GPS, SBAS, QZSS
CAN	2-channel
Digital Input	6-channel
Digital Output	2-channel
External Dimensions (W×H×D)	150mm×32mm×127.8mm
Weight	0.32kg
Case	PV resin
Power Supply	DC12V (DC10～16V)
Current Consumption	MAX 1A
Storage Temperature Range	-40℃～85℃
Operating Temperature Range	-30℃～65℃
Operating Humidity Range	95%(55℃)
Vibration Resistance	90m/s^2(8.9G)10～500Hz
Test Standard	・CE This device complies with the R&TTE Directive (1999/5/EC) issued by the Commission of the European Community. CE0560 EN301 908-1,　EN301 511, EN300 440-2 EN301 489-1,EN301 489-3,EN301 489-7,EN301 489-24 EN60950-1 EN62209-2 ・FCC FCC Part22,　FCC Part24 FCC Part15b OET Bulletin 65 Supplement C

FCC DECLARATION OF CONFORMITY

Product	Controller Mobile Communicator
Model	YSAR02-3G
Responsible Party	YANMAR CO., LTD.
Address	1600-4,Umegahara,Maibara,Shiga,Japan
Telephone	+81-749-52-8408

FCC STATEMENTS

1. Statement according to Part 15.105

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.

2. Statement according to Part 15.19 and Canada CAN ICES-3 (B)/NMB-3(B)

This device complies with Part 15 of the FCC Rules and with CAN ICES-3 (B)/NMB-3(B) of Industry Canada.

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.

3. Statement according to Part 15.21

Changes or modifications made to this equipment not expressly approved by YANMAR CO., LTD. may void the user's authorization to operate this equipment.

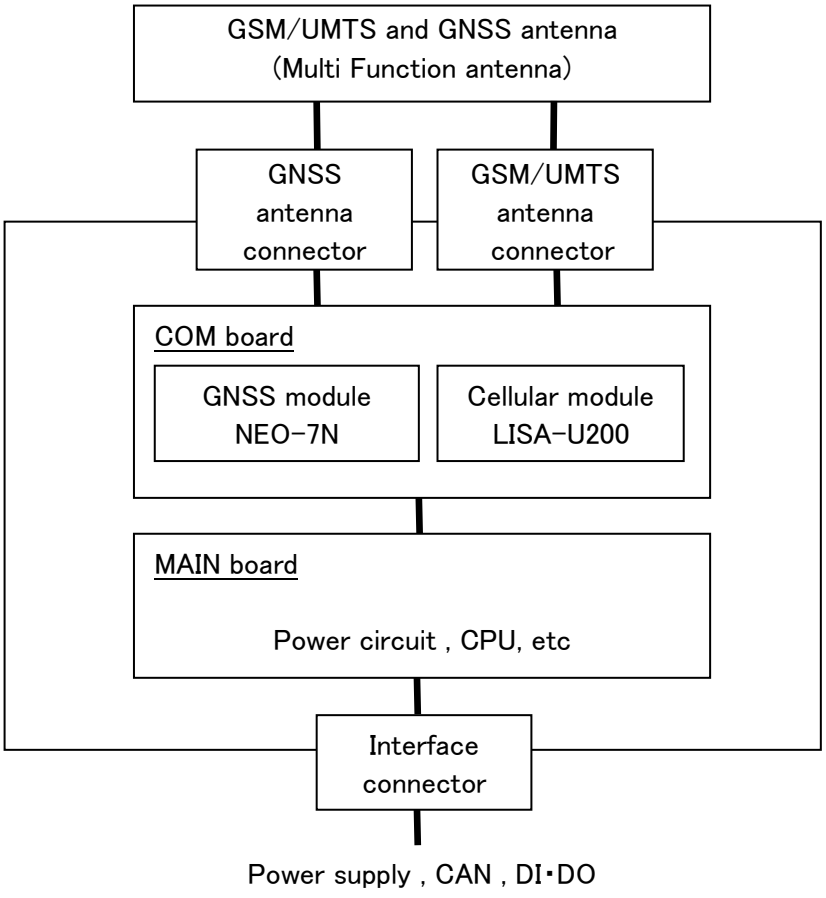
4. Statement according to RF Exposure

Radiofrequency radiation exposure Information:
This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.
This equipment should be installed and operated with minimum distance of 2 cm between the radiator and your body and at least 20 cm between the radiator and the head of all persons.
This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

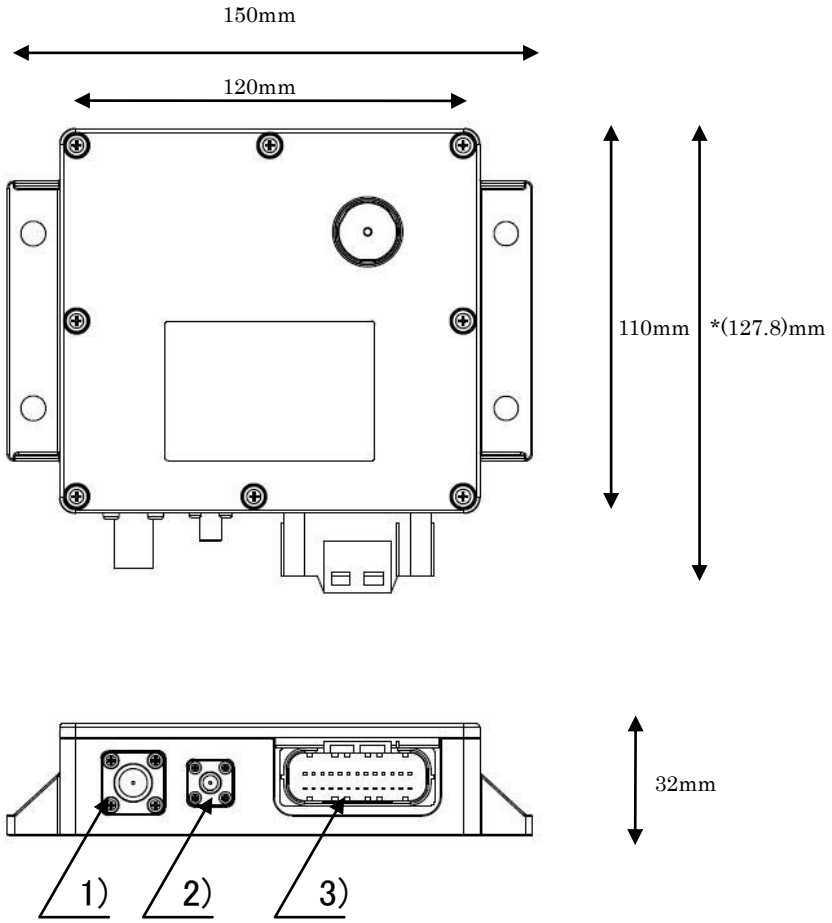
A minimum separation distance of 2 cm must be maintained between the user' s body and the device, 20 cm must be maintained between the user's head and the device, including the antenna during body-worn operation to comply with the RF exposure requirements in Europe.

COMPONENTS

SYSTEM BLOCK DIAGRAM



EXTERNAL DIMENSIONS



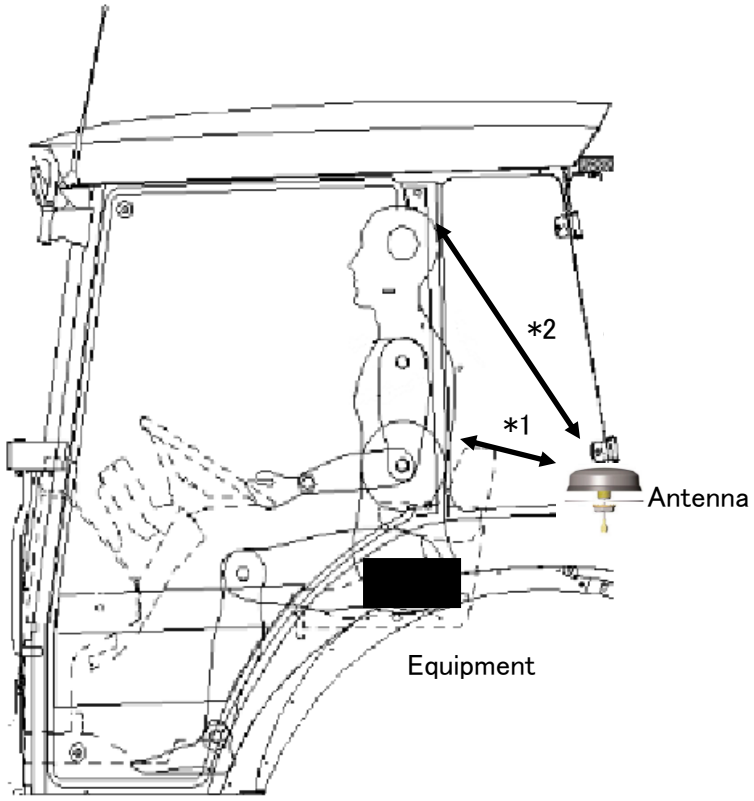
＊reference size.

1) GSM/UMTS antenna connecter

2) GNSS antenna connecter

3) Interface connecter (Power Supply , CAN , DI･DO)

FIGURE OF THE INSTALLATION



*1 Minimum distance of 2cm between the antenna and your body.

*2 Minimum distance of 20cm between the antenna and your head.

Installation of the antenna and this equipment will be different depending on each machine.

NOTICE TO INSTALL

Do not install this equipment to a place where

- it will receive strong vibrations, impacts , direct sunshine and rain.
- temperature rises or lowers extremely, or changes rapidly.

Put in fuse (MAX 30A) between this equipment and battery.

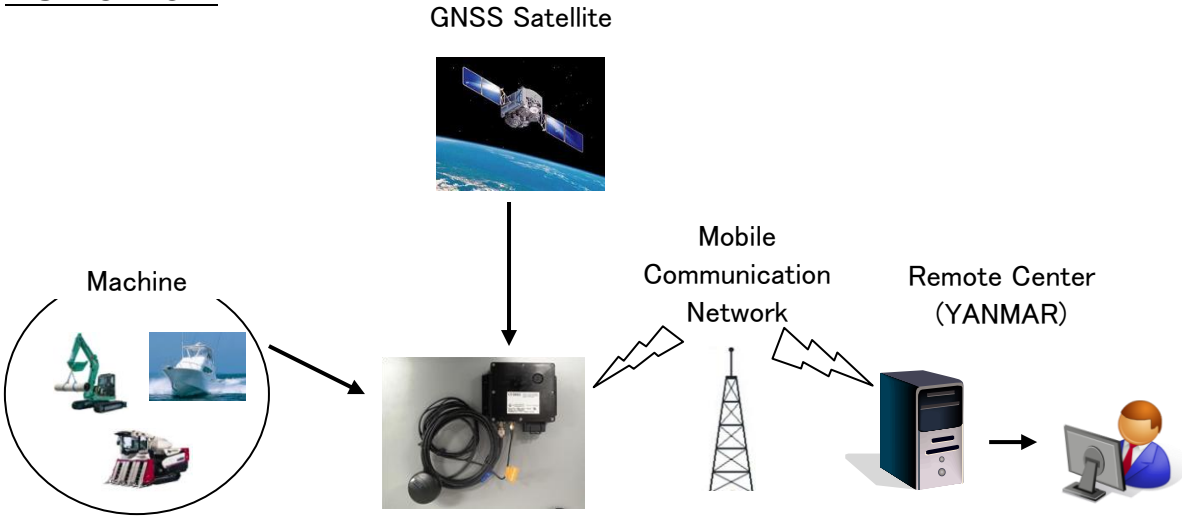
FUNCTION OVERWIEW

ABOUT INSTALL

This equipment is installed to Products made by YANMAR.

Ex) Agriculture, Construction, and Marine Machine, or Engine, etc.

FUNCTION



This equipment has some following functions.

This equipment can

- collect the state of the operation machine.
- get the position by GNSS.
- communicate with the remote center by a mobile communication network.

This equipment communicates with the remote center, when the machine operating starts or finishes, or various events occur.