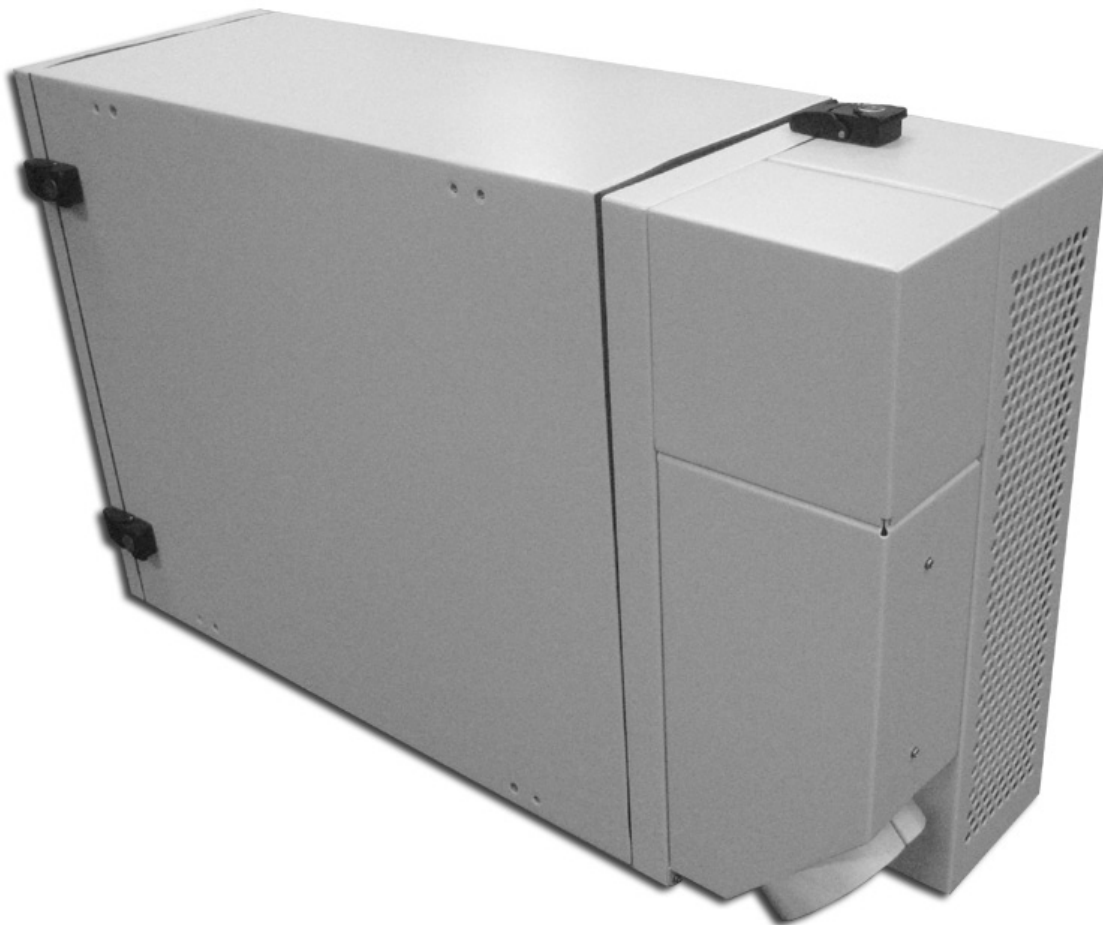


Outdoor Booster Remote Monitoring Modem Instruction



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Outdoor Booster Remote Monitoring Modem Instruction

1. Overview

Outdoor booster remote monitoring modem is used to monitor and configure the system working status by mobile phone. Only authorized mobile phone can be configure into the system for access the system to configure the system.

2. SIM Card Installation

Remove two screws from the backside (Shown as figure 1), and take out the MCPA module. (As shown in figure 2) Press the yellow key to pop out the SIM card slot. Put the SIM card into the slot and than finish the SIM card installation.



Figure 1 the screw location

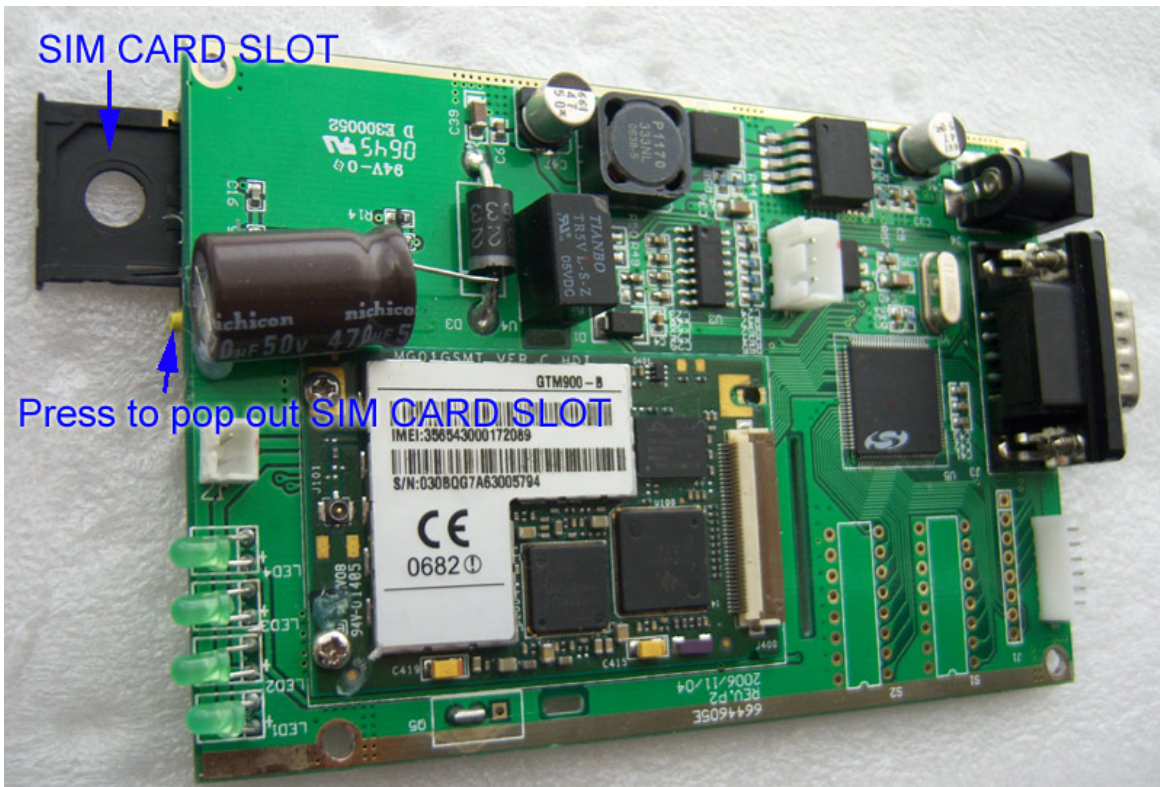


Figure 2 Modem board

3. Function Description

Item	Function	Description
1	Mobile phone permission setting	Administration permission, browse permission
2	Site's serial No. setting	
3	Gain setting	Uplink gain setting, downlink gain setting
4	Failure alarm	Fan alarm, LNA alarm, bypass alarm, over-power alarm, over-temperature alarm, VSWR alarm, MS_COM alarm, PA_COM alarm
5	Alarm status changing report	Alarm dismiss report
6	Power supply status report	Power on report
7	System status and parameter inquiring	

4. Operation Instruction

4.1 Mobile Phone Permission Setting

Mobile phone applies permission by sending message to modem's SIM card. Modem can authorize 2 administration mobile phones and 3 browser mobile phones at the most.

4.1.1 No. 1 administration mobile phone setting

- 1) Use mobile phone to send message ***!BTIboostercomm1:xxxxxxx!*** to the Modem's SIM card.

Note:

- ① xxxxxxx is the mobile phone No. which is authorized to be No.1 administration mobile phone.
- ② x should be numbers, and the length of the message should be less than 20.

- 2) Confirming message will be sent to the mobile phone in 3 minutes.

① ***!BTIboostercomm1: xxxxxxxOK!***

The mobile phone xxxxxxx has been set to No.1 administration mobile phone.

② ***!BTIboostercomm1: xxxxxxxERR!***

Administration permission setting is failed. Please check the instruction and resend it.

③ ***!BTIboostercomm1: xxxxxxx you have not accredit!***

The mobile phone xxxxxxx hasn't been set to administration mobile phone. Please use inquiring instruction to check whether the administration mobile phone has been set already, referring to the instruction in section 5.3.

4.1.2 No. 2 administration mobile phone setting

- 1) No. 2 administration mobile phone must be set by No.1 administration mobile phone.

Use No.1 administration mobile phone to send message ***!BTIboostercomm2:xxxxxxx!*** to the Modem's SIM card.

Note:

- ① xxxxxxx is the mobile phone No. which is authorized to No.2 administration mobile phone.
- ② x should be numbers, and the length of the string should be less than 20.

- 2) Confirming messages will be sent to the mobile phone in 3 minutes.

① ***!BTIboostercomm2: xxxxxxxOK!***

The mobile phone xxxxxxx has been set to No.2 administration mobile phone.

② ***!BTIboostercomm2: xxxxxxxERR!***

Administration permission setting is failed. Please check the instruction and resend it.

③ ***!BTIboostercomm2: xxxxxxx you have not accredit!***

The mobile phone xxxxxxxx hasn't been set to No.2 administration mobile phone. Please check your permission to set the No.2 administration mobile phone.

4.1.3 Browse mobile phone setting

Browse mobile phone must be set by administration mobile phone, and the maximum number of browse mobile phone is 3.

- 1) Use administration mobile phone to send message ***!BTIboostercomm*:xxxxxxx!*** to the Modem's SIM card.

Note:

- ① * should be 3 or 4 or 5, which is the serial number of browse mobile phone.
 - ② xxxxxxxx is the mobile phone No. which is authorized to browse mobile phone.
 - ③ x should be numbers, and the length of the string should be less than 20.
- 2) Confirming messages will be sent from the Modem to the mobile phone in 3 minutes.

① ***!BTIboostercomm*: xxxxxxxxOK!***

The mobile phone xxxxxxxx has been set to browse mobile phone.

② ***!BTIboostercomm*: xxxxxxxxERR!***

Browse permission setting is failed. Please check the instruction and resend it.

③ ***!BTIboostercomm*: xxxxxxxx you have not accredit!***

The mobile phone xxxxxxxx hasn't been set to browse mobile phone. Please check your permission to set the browse mobile phone.

4.2 Inquiring Authorized Mobile Phone's No.

Any mobile phone (authorized and unauthorized) can send message to the Modem's SIM card to inquire the No. of administration mobile phone and browse mobile phone.

- 1) Send message ***!BTIboosterqtel!*** to the Modem's SIM card.
- 2) Confirming messages will be sent to the mobile phone in 3 minutes.

Example: ***!BTIboosterqtel1:xxxxxxx tel2:yyyyyyy tel3:null tel4:null tel5:null-OK!***

Description:

- ① ***tel1:xxxxxxx*** --- No.1 administration mobile phone is xxxxxxxx.
- ② ***tel2:yyyyyyy*** --- No.2 administration mobile phone is yyyyyyyy.
- ③ ***tel3:null*** --- No.3 browse mobile phone is null
- ④ ***tel4:null*** --- No.4 browse mobile phone is null
- ⑤ ***tel5:null*** --- No.5 browse mobile phone is null

4.3 Site Serial No. Setting

Only administration mobile phones can set site Serial No.

- 1) Send message ***!BTIboosteraddr:*****!*** to the modem's SIM card.

Note:

- ① xxxxxxxx is the serial No. of site.
- ② x should be letters or numbers, and the length of the string should be less than 20

2) Confirming messages will be sent to the mobile phone in 3 minutes.

① *!BTIboosteraddr: xxxxxxxxOK!*

The site whose serial No. is xxxxxxxx has been set successfully.

② *!BTIboosteraddr: xxxxxxxxERR!*

Site serial No. setting is failed. Please check the instruction and resend it.

③ *!BTIboosteraddr: xxxxxxxx you have not accredit!*

You don't have the permission to set site. Please check your permission.

4.4 Gain Setting

Only administration mobile phones can set PA gain and LNA gain

1) send message ***!BTIboostergainpa1:**,lna1:##,!*** to the modem's SIM card.

Note:

- ① ** is downlink PA gain. Range is 0~15dB;
- ② ## is uplink LNA gain. Range is 0~12dB and typical is 12dB;
- ③ Gain is 2 digital number

Example: *!BTIboostergainpa1:04,lna1:12,!*

Description: PA gain is 4dB and LNA gain is 12dB

2) Confirming messages will be sent to the mobile phone in 3 minutes.

① *!BTIboostergainpa1:**,lna1:##,OK!*

Gain setting is successful.

② *!BTIboostergainpa1:**,lna1:##,ERR!*

Gain setting is failed. Please check the gain setting instruction and resend it.

③ *!BTIboostergainpa1:**,lna1:##,you have not accredit!*

You don't have the permission to set gain. Please check your permission.

4.5 Alarm Status Report

1) If modem detect alarm signal of outdoor booster, it will send alarm messages to mobile phones which have administration or browse permission. Message format is: ALARM-LIST: device/ ADDR:site serial No.

Example: If modem receive the FAN1 alarm of site CADASARI01, modem will send a message *ALARM-LIST:FAN1/ ADDR:CADASARI01* to mobile phones which have administration or browse permission.

Alarm description:

Item	Alarm	Specification	Remark
1	OVERTEMP	PA OVER TEMPERATURE ALARM	
2	OVERPOWER	PA OVER POWER ALARM	
3	VSWR	VSWR ALARM	
4	PA_COM	PA COMMUNICATION ALARM	
5	MS_COM	MESSAGE COMMUNICATION ALARM	Connection between Modem and Test port Failure
6	LNA	LNA ALARM	
7	BYPASS	BYPASS ALARM	
8	FAN	FAN ALARM	

2) Alarm sending frequency

When modem receives failure alarm, it will send message 3 times every 3 minutes. If the failure isn't removed, Modem will resend alarm messages in 3 hours.

4.6 Alarm Status Changing Report

- 1) When the system alarm status changes, the Modem will send messages to mobile phones which have administration or browse permission.

Example:

The original status is *ALARM-LIST: FAN1/FAN2/MS_COM/ ADDR:CADASARI01*, which means system has FAN1, FAN2 and MS_COM Alarm. If MS_COM alarm is removed, but FAN1, FAN2 alarm is still exist, then the Modem will send message *ALARM-LIST: FAN1/FAN2/MS_COM OK/ADDR:CADASARI01*.

- 2) Alarm status change sending frequency:

When Modem receives alarm status change, it will send message 3 times every 3 minutes. Modem will resend alarm status change messages in 3 hours and 6 hours.

4.7 Power Supply Status Report

If the outdoor booster power on, modem will send messages to mobile phones which have administration or browse permission

*POWERON ADDR: ******

Example: If the outdoor booster of site CADASARI01 power on, modem will send the following message to administration or browse mobile phone:

POWERON ADDR: CADASARI01

4.8 Device Status Inquiring

Any mobile phone (authorized and unauthorized) can send message to SIM card of modem to inquire device status.

- 1) Send message ***!BTboosterqequ!*** to the modem's SIM card.
- 2) Confirming messages will be sent to the mobile phone in 3 minutes:

*!BTboosterqequ UP-LINK:GAIN ** DOWN-LINK:GAIN ** PAFOR **. * VSWR *.**
PA1-TEMP **. * STATION:OK/ALARM*

(ALRM LIST: OVERPOWER/OVERTEMP/VSWR/PA1_COM/MS_COM

/LNA1/ LNA0/BYPASS/FAN1/FAN2/FAN3) ADDR: CADASARI01-OK!