

Grandstream Networks, Inc.

GDS3710 Input/output Alarms Configuration Guide





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INTRODUCTION

GDS3710 HD IP Video Door System is a hemispheric IP video door phone and a high-definition IP surveillance. GDS3710 is ideal for monitoring from wall to wall without blind spots. Powered by an advanced Image Sensor Processor (ISP) and state of the art image algorithms, it delivers exceptional performance in all lighting conditions. The GDS3710 IP video door system features industry-leading SIP/VoIP for 2-way audio and video streaming to smart phones and SIP phones. It contains integrated PoE, LEDs, HD loudspeaker, RFID card reader, motion detector, lighting control switch, Alarm input/output and more.

This guide explains step by step how to use the GDS3710 Input/Output Alarms and related configuration.





GDS3710 WIRING CONNECTION

The first step to setup the GDS3710 in an environment is to choose the powering method then and connect an RJ45 cable so it can interact with the network and start operating. Two ways are possible to power the GDS3710 using PoE or PSU:

Using PoE as power supply (Suggested)

- Connect the other end of the RJ45 cable to the PoE switch.
- PoE injector can be used if PoE switch is not available.

Using the Power Adapter as power supply (PSU not provided)

- Connect the other end of the RJ45 cable to network switch or router.
- Connect DC 12V power source via related cable to the corrected PIN of the GDS3710.

Powering GDS3710

Below figures provide description of wiring connection of the GDS3710 Back Cover to connect the GDS3710 with RJ45 cable and PSU and Alarm for door systems.

Power and Data PINs

To power the GDS3710 using PoE, please follow steps below:

1. Cut into the plastic sheath of your RJ45 cable, then unwind and pair the colors like shown below.





2. Connect each color of the RJ45 to its associate on the Back Cover of the GDS3710.







Figure 2: GDS3710 Back Cover 1

To power the GDS3710 using PSU, please follow steps below:

- 1. Use a multimeter to detect the polarity of your Power Supply, then connect the Back Cover GND to negative pole and 12V to positive pole of the PSU.
- 2. Cut into the plastic sheath of your RJ45 cable, then unwind and pair the colors like shown below



Figure 3: Connection Example 2

3. Connect wires OrangeWhite/Orange and GreenWhite/Green of the RJ45 to its associate on the GDS3710

Note: The Blue and Brown PINs are used for PoE, therefore when using PSU we only need to connect the data wires, power will be provided to the GDS3710 trough (12V, GND).

Connecting Alarm IN and Alarm OUT PINs

The GDS3710 have two alarm input entries and two alarm output entries and a ground entry as shown in the following figure.







Figure 4: Back Cover 2

The following table summarizes the GDS3710 entries and their purpose.

Jack	Pin	Signal	Function		Note
	1	TX+		Orange / White	
	2	TX-		Orange	Data
	3	RX+	Ethernet PoE 802.3af	Green / White	Dala
	4	RX-		Green	
J2 (Basic)	5	PoE_SP2	Class 3, 12.95W	Blue + Blue/White	Please twist these two wires together and connect to SP1,
3.81mm	6	PoE_SP1		Brown + Brown/White	SP2 respectively even the PoE NOT used.
	7	RS485_B	DQ195		
	8	RS485_A	K3403		
	9	GND	Power Supply	DC 12V 1A Minimum	
	10	12V			
	1	GND	Alarm GND		
	2	ALARM1_IN+			
	3	ALARM1_IN-	Alarm In	arm In Vin<15V	
	4	ALARM2_IN+			
J3	5	ALARM2_IN-			
(Advanced)	6	NO1	Alorm Out	Polov: 20\/DC/24: 125	
3.81mm	7	COM1	Alainii Out	Relay. 30VDC/2A, 123	VAC/0.5A
	8	NO2		For "Fail Secure" (Lock	ed when Power Lost) Strike.
	9	COM2	Electric Lecto	Connecting COM2 & NO2;	
	10	NC2	Electric Lock	Connecting COM2 & NO Relay: 30VDC/2A; 12	5VAC/0.5A





1 GND 2 WG_D1_OUT	Wiegand Power GND	Black	Both Input and Output MUST be connected		
	2	WG_D1_OUT	Wiegand Output	Orange	GDS3710 function as Output
	3	WG_D0_OUT	Signal	Brown	1, 2, 3
	4	LED	Wiegand Output LED Signal	Blue	For External Card Reader; Or GDS3710 as Receiver Only
J4	5	WG_D1_IN	Wiegand Input	White	For External Card Reader
(Special) 2.0mm 7 8	6	WG_D0_IN	Signal	Green	Connect Pin 1,4,5,6,7,8
	7	BEEP	Wiegand Output BEEP Signal	Yellow	For External Reader Only
	8	5V	Wiegand Power Output	Red	For External Card Reader Only. 12VDC powered External Card Reader must use own power source, can NOT use this Pin.

Note:

Alarm IN and Alarm OUT are just electronic lock, they are either open to block the current or open to let the current pass through, therefore a 3rd party power supply is needed to power the device connected to the GDS3710 via Alarm IN or Alarm OUT.

Alarm IN Connection Example

Connect Alarm (IN1+, IN1-) or (IN2+, IN2-) to appropriate wires in order to receive signal from the third party device as shown below.



Figure 5: Alarm Input Example





Alarm OUT Connection Example

Connect Alarm (NO1, COM1) to appropriate wires in order to receive signal from the third party device as shown below.



Figure 6: Alarm Output Example

Note:

Please refer to GDS3710 User Manual for information to detect and access the GDS web GUI.





GDS3710 ALARM CONFIGURATION

The below diagram illustrates an example of peripheral connections for the GDS3710.



Figure 7: Peripheral Connections for GDS3710





To configure the Alarm IN/OUT on the GDS3710, access the webGUI, after detecting the GDS3710 IP address using one of the methods previously mentioned, and log in as admin (the default user/pass for admin log in is admin/admin).

	Alarm Events Config	
LiveView	Motion Detection	
Door System Settings		
System Settings	Enable Motion Detection	Region Config
SIP Settings	Sensitivity	50
Video & Audio Settings	Select Alarm Schedule	All Day 🔻
	Select Alarm Action Profile	profile1 •
Alarm Config		
Alarm Events Config	Digital Input	
Alarm Schedule		
Alarm Action	Digital Input 1	Disable •
Alarm Phone List	Select Alarm Schedule 1	All Day 🔻
Email & FTP Settings	Select Alarm Action Profile 1	profile1 •
Maintenance	Digital Input 2	Disable •
Status	Select Alarm Schedule 2	All Day 🔻
	Select Alarm Action Profile 2	profile1 •

Navigate to "Alarm Config", this tab contains four sub sections as shown below.

Figure 8: Alarm Config Page Settings

Alarm Schedule

This page specifies the configuration of Alarm Schedule. Schedule must be in place before the alarm take the related action.





	Alarm Sc	nedule	
LiveView	No.	Schedule Name Detail	Edit
Door System Settings	1	schedule1 🕤	\oslash
System Settings		0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 2	3 0
IP Settings		Sun	
deo & Audio Settings	_	Mon Tue	
arm Config	-	Wed	
Alarm Events Config		Thu	
Alarm Schedule	-	Fri	
Alarm Action		schedula?	
Alarm Phone List	3	schedule3	0
mail & FTP Settings	4	schedule4 🕤	Ø
aintenance	5	schedule5 S	\oslash
	6	schedule6 💿	\oslash
tatus	7	schedule7 💿	\oslash
	8	schedule8 💿	\oslash
	9	schedule9 💿	\oslash
	10	schedule10 💿	\oslash

Figure 9: Alarm Schedule

GDS3710 supports up to 10 alarm schedules to be configured, with time span specified by users. User can edit the alarm schedule by clicking \bigcirc button. Usually the 24 hours' span is 00:00 ~ 23:59, which is 24 hours' format.

Users can copy the configuration to different date during the schedule programming.

Modify Schedule					×
Schedule Name	schedule1				
Sun	Period1	00	: 00	- 23 : 59	
Mon	Period2	00	: 00	- 00 : 00	
Tue	Period3	00	: 00	- 00 : 00	
Wed Thu	Period4	00	: 00	- 00 : 00	
Fri	Period5	00	: 00	- 00 : 00	
Sat	Period6	00	: 00	- 00 : 00	
	Period7	00	: 00	- 00 : 00	
	Period8	00	: 00	- 00 : 00	
Copy 📄 Sun 🖉 Mon	🖉 Tue 🖉 Wed	🕑 Thu	🖉 Fri 🔲	Sat OK	
	Save		Са	ncel	

Figure 10: Edit Schedule





Alarm Action

This page specifies the configuration of Profile used by the Alarm Actions. A Profile is required before the Alarm Action can take effect.

	Alarm A	ction			
LiveView	No.	Alarm Action	Profile Name	Detail	Edit
Door System Settings	1	Mhar	nmed	\odot	\oslash
System Settings		 Upload to Alarm Center 	Sound Alarm		
SIP Settings		Voice Alarm to SIP Phone	Alarm Output		
Video & Audio Settings		🥑 Send Email	 Upload JPEG 		
Alarm Config					
Alarm Events Config					
Alarm Schedule					
Alarm Schedule					
Alarm Schedule Alarm Action Alarm Phone List	2	pro	file2	©	Ø
Alarm Schedule Alarm Action Alarm Phone List	2	pro	file2 file3	• •	©
Alarm Schedule Alarm Action Alarm Phone List Email & FTP Settings	2 3 4	pro pro pro	file2 file3 file4	© © ©	Ø 0
Alarm Schedule Alarm Action Alarm Phone List Email & FTP Settings Maintenance	2 3 4 5	pro pro pro pro	file2 file3 file4 file5	 ○ ○ ○ ○ 	Ø Ø Ø
Alarm Schedule Alarm Action Alarm Phone List Email & FTP Settings Maintenance	2 3 4 5 6	pro pro pro pro pro pro	file2 file3 file4 file5 file6	© © © ©	() () () () () () () () () () () () () (
Alarm Schedule Alarm Action Alarm Phone List Email & FTP Settings Maintenance Status	2 3 4 5 6 7	pro pro pro pro pro pro pro	file2 file3 file4 file5 file6 file7		Ø Ø Ø Ø
Alarm Schedule Alarm Action Alarm Phone List Email & FTP Settings Maintenance Status	2 3 4 5 6 7 8	pro pro pro pro pro pro pro pro	file2 file3 file4 file5 file6 file7 file8		
Alarm Schedule Alarm Action Alarm Phone List Email & FTP Settings Maintenance Status	2 3 4 5 6 7 8 9	Pro	file2 file3 file4 file5 file6 file7 file8 file9		0 0 0 0 0 0 0 0 0

Figure 11: Alarm Action

User can edit the alarm action by clicking \oslash button, the following window will popup.

Modify Alarm Action Profile		×
Alarm Action Profile Name	Profile1	
Upload to Alarm Center	V Soun	d Alarm
Voice Alarm to SIP Phone	🔽 Alarm	n Output
🔽 Send Email	🔽 Uploa	ad JPEG
	Save Can	cel

Figure 12: Edit Alarm Action

Table 1: Alarm Actions

Upload to Alarm Center	When checked, the alarm video will be transferred to Alarm Center.
Voice Alarm to SIP	If the SIP server or the peer IP device is configured, check this will allow
Phone	the event to trigger alarm SIP call to pre-configured number.





Send Email	When checked, an email will be sent when the events are triggered to the pre-configured email account.
Sound Alarm	When selected, alarm will be played from the GDS3710 Built-in Speaker.
Alarm Output	An alarm will be sent to the Alarm Output interface if this option is checked.
Upload JPEG	When checked, snapshots of the moment where the event is triggered will be uploaded to the FTP server.

Alarm Phone List

This page allows user to configure the Alarm Phone List, which is phone numbers or extensions list that the GDS3710 will call out when event trigged (e.g.: doorbell pressed).

	Alarm Phone	List	
LiveView	Add	Delete	
Door System Settings	No.	Phone Number	
System Settings	1	1003	
SIP Settings	2	1002	
Video & Audio Settings			
Alarm Config			
Alarm Schedule			
Alarm Phone List			
Email & FTP Settings			
		Figure 13: Alarm Phone List	

Table 2: Alarm Phone List

Add	Add new phone number to the alarm list.
Delete	Delete a number from the phone alarm list.

Once the event is triggered (Motion Detection, Door Bell Pressed...) the GDS3710 will call the first number, once time out is reached and no answer is returned from the first number, the GDS3710 will try the next number on the list and so on. Once the remote phone answers the call an alarm will be played to notify users that an event is triggered.

Alarm Events Config

This page allows users to configure GDS3710 events to trigger programmed actions within predefined schedule.





	Alarm Events Config		
LiveView	Motion Detection		
Door System Settings			
System Settings	Enable Motion Detection	Region Config	
SIP Settings	Sensitivity	0	50
Video & Audio Settinas	Select Alarm Schedule	All Day	•
Alarm Config	Select Alarm Action Profile	profile1	•
Alarm Events Config	Digital Input		
Alarm Schedule	Digital Input 1	Disable	•
Alarm Phone List	Select Alarm Schedule 1	All Day	•
Email & ETP Settings	Select Alarm Action Profile 1	profile1	•
	Digital Input 2	Disable	•
Maintenance	Select Alarm Schedule 2	All Dav	•
Status	Select Alarm Action Profile 2	profile1	
	Select Alarm Action Frome 2	promer	·
	Digital Output		
	Alarm Output Duration(s)	5	•
	, aum oup a balaion(o)	<u> </u>	
	Alarm Config		
	Enable Hostage Code		
	Enable Tamper Alarm		
	Enable Keypad Input Error Alarm		
	Save		

Figure 14: Events Page

Alarm can be triggered either by motion detection or by GDS3710 input.





Motion Detection



Users can select a specific region to trigger the alarm using motion detection.

Figure 15: Region Config

Table 3: Motion Detection

Enable Motion Detection	Click on the check box to enable Motion Detection.
Region Config	Click to enter the Region Config menu.
Quit Config	Click to exit the Region Config menu.
Clear Selected Region	Select a zone on the screen then click on Clear to delete the region.
Sensitivity	Region sensitivity (value between 0-100%).
Select Alarm Schedule	Select the Schedule programmed.
Select Alarm Action Profile	Select the programmed Alarm Action.





Digital Input

SIP Settings	Digit Input		
Video & Audio Settings	Digital Input 1	Alarm Input	•
Alarm Config	Select Alarm Schdeule 1	All Day	•
Alarm Events Config	Select Alarm Action Profile 1	profile3	•
Alarm Schedule	Digital Input 2	Open Door	•
Alarm Action	Select Alarm Schdeule 2	All Day	•
Alarm Phone List	Select Alarm Action Profile 2	profile5	•
Email & FTP Settings			

Figure 16: Digital Input

Table 4: Digital Input

Digital Input 1	Select the Input method (alarm Input or Door Open).
Select Alarm Schedule 1	Select the predefined Schedule.
Select Alarm Action Profile 1	Select the predefined Alarm Action.
Digital Input 2	Select the Input method (alarm Input or Door Open).
Select Alarm Schedule 2	Select the predefined Schedule.
Select Alarm Action Profile 2	Select the predefined Alarm Action.

Alarm Output

Alarm Output Duration(s) specifies how long the alarm output will take effect.

The valid range is 5 to 300 seconds.

Hostage Code

Hostage password can be used in a critical situation for instance a kidnaping or an emergency, users need to enter the following sequence to trigger the actions set for the Hostage Mode: "* HostagePassword #".

Table 5: Hostage Code Alarm		
Enable Hostage Password	Enable/Disable Hostage password mode.	
Hostage Code	Set the password for the hostage mode.	
Select Alarm Action Profile	Select the Alarm action to be taken when the hostage password is typed on the GDS3710 keypad. Note: No sound alarm will be triggered in this mode.	





Tamper Alarm

Tamper alarm is anti-hack from Hardware level. When this option is checked, if the GDS3710 is removed from the installation board, it will generate the alarm actions configured. There is an embedded mechanism on the GDS3710 that allow it to sense when the it is removed.

Table 6: Tamper Alarm

Enable Tamper Alarm	When activating this mode, GDS3710 will keep alarming until the alarm is dismissed.
Select alarm Action Profile	Select the type of alarms to be taken for the tamper alarm mode.

Keypad Input Error Alarm

Enable Keypad Input Error Alarm	Enable/Disable the Input Error Alarm, GDS3710 will take alarm actions every 5 incorrect attempts.
Select Alarm Profile	Select the Alarm action to be taken after 5 incorrect attempts.

Table 7: Keypad Input Error Alarm

