

linkIT-RS232

Connectez vos moteurs radios Gaposa en les intégrant dans les solutions domotiques Control4.

TECHNICAL CHARACTERISTICS

- Individual or group control
- 16 or 24 individual channels
- Tilting mode
- Intermediate position
- LED for feedback
- Reset and programming buttons
- Cables available for easy connection

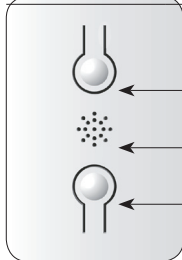


Hub Input Voltage	5V
Hub Input Power	0.3 A Max.
Frequency	434.15 MHz
Connection	Wi-Fi
Wi-Fi network	2.4 GHz only
Range	30 mt / 98 feet
Protection Rate	IP20
Operation Temperature	0°C to 60°C / 32°F to 140°F

Hardware

Reference	Channels	Country
linkIT-434-16	16	USA
linkIT-434-24	24	USA

Comes with 2A, 5V micro-USB power supply.
It is possible to install more than one LinkIT with the IP driver.



**Device
reboot
button**

LED

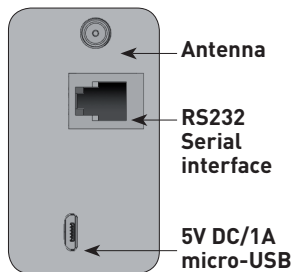
Reset button

• **Quick Press**

Requests a replacement device config (Transmitter IDS/ Number of Channels / Linkit or Roll.App)

• **Long press**

Resets Wifi. Removes current wifi config and starts the captive portal



Antenna

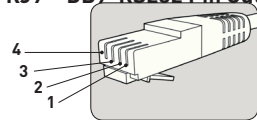
**RS232
Serial
interface**

**5V DC/1A
micro-USB**

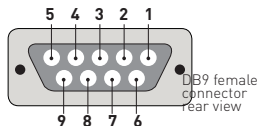
LED status

Green	Booting up
Flashing Blue	waiting for Wi-Fi network
Blue	Wi-Fi connected
Red	Command sent for UP, DOWN, STOP or PRESET

RJ9 – DB9 RS232 Pin Outs



RJ9 male
connector



DB9 female
connector
rear view

USAGE	RJ9 PIN	DB9 PIN
5 Volt Power	1	NA
TXD	2	2
RXD	3	3
GND	4	5

Note: RS232 connection is made via RJ9 Socket.

Warning: check for crossover of pins 2 & 3 depending on the equipment used.

5V Pin is optional and is provided to allow LinkIT to be powered via the RJ9 socket.

This is for advanced installation only and should not be used alongside the 5V micro USB input.

Cabling distance

15 meters or more if special cables are used.
Cable options:

Reference	Description
	Serial connector with RJ9

RS232 protocol

RS232 Setup: [9K6 8N1]

Baud Rate	9600
Data	8
Check Bit	None
Stop Bit	1

Control Commands:

Command	Byte	Tilt Up	0xba
Add Motor (PROG TX)	0xaa	Tilt Down	0xbb
Delete Motor (TX DELETE)	0xab	Stop	0xcc
Go to Interim Position	0xad	Up	0xdd
		Down	0xee

Transmission Structure:

Header	Bank	Channel	Command	Verify XOR B0-B3
B0	B1	B2	B3	B4
0x67	0x00	0x01	0xdd	0xbb

Example – Channel 1 – UP [Channel value Min 1 Max 8]

Bank:

Bank ID	Bank Function	Byte
A	Address 1-8	0x00
B	Address 9-16	0x01
C	Address 17-24	0x02

Banks B-C are optional depending on LinkIT SKU – I.E if you have an 8-channel version only bank A will function.
A 24-channel version will have banks A-C.

Reply Structure:

Header	Command	Confirmation
B0	B1	B2
0x6 6	0xdd	0xff

Example – Confirmation Command UP – received

Usage:

The host device must send a 5-byte payload to LinkIT.

B0	Fixed Header Byte – 0x67
B1	B1 Bank Selection from Bank A-C dependent on the target address
B2	Channel – This is always in the range 1-8.
B3	Control Command – see table above
B4	Verify – XOR of Bytes B0-B3 – See Example Table

For example, to close (down) a motor with bank 0 address 1 the command would be:
 $0x67, 0x00, 0x01, 0xee, 0x88 = 0x67 \oplus 0x00 \oplus 0x01 \oplus 0xee$ - bitwise XOR

Examples of verify Commands:

HEAD	BANK	CHANNEL	COMMAND	VERIFY
0x67	0x00	0x01	0xee	0x88
0x67	0x00	0x02	0xee	0x8B
0x67	0x00	0x03	0xee	0x8A
0x67	0x00	0x04	0xee	0x8D
0x67	0x00	0x05	0xee	0x8C
0x67	0x00	0x06	0xee	0x8F
0x67	0x00	0x07	0xee	0x8E
0x67	0x00	0x08	0xee	0x81

On the table all codes are listed for motors 1 - 8 for command -0xee (Down)

For Up and Stop

Change the Command to **0xdd - UP** and for **0xcc - STOP**

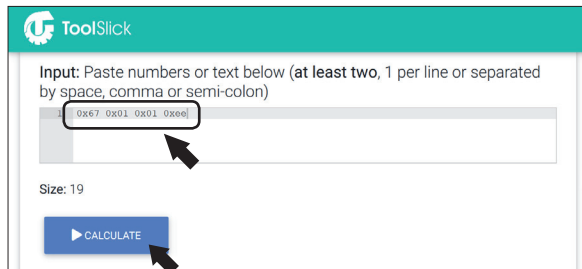
Note: now the bytes must be xored together to get the verification byte

For easy calculation, use XOR Calculator link:

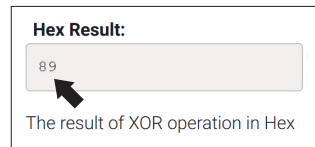
<https://toolslick.com/math/bitwise/xor-calculator>



Enter the bytes for example **0x67 0x01 0x01 0xee** :



Take the HEX result see example:



Using the above you can calculate the XOR for every code that you need:

To ensure this is correct the command and XOR for Bank 1, Channel 1, UP would be:

0x67, 0x01, 0x01, 0xdd - (XOR = ba)

Command to send: **0x67, 0x01, 0x01, 0xdd, 0xba**



More information:

To access the support files for LinkIT, go to this website, or scan the QR Code.

<http://www.gaposa.it/eng/linkit/>

Initiating the Hub Set-up

1



Plug the hub into an outlet within range of your Wi-Fi network and Gaposa powered shades.

3

Enter password to connect (Case sensitive):
GaposaInit

Enter the password for "GAPOSA-c045"

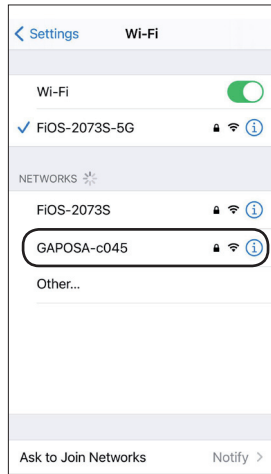
[Cancel](#) **Enter Password** [Join](#)

Password **Enter Password**

You can also access this Wi-Fi network by bringing your iPhone near any iPhone, iPad, or Mac which has connected to this network and has you in their contacts.

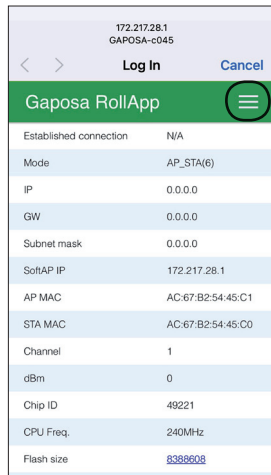
2

Open your Wi-Fi settings and connect to the network **GAPOSA-xxxx** (ex: GAPOSA-c045)



4

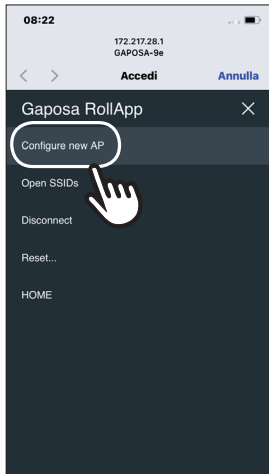
You will be taken to the network sign-in page, if not, you must sign into the network from settings. Click the **menu button** at the top right if on a mobile phone.



Gaposa RollApp	
Established connection	N/A
Mode	AP_STA(6)
IP	0.0.0.0
GW	0.0.0.0
Subnet mask	0.0.0.0
SoftAP IP	172.217.28.1
AP MAC	AC:67:B2:54:45:C1
STA MAC	AC:67:B2:54:45:C0
Channel	1
dBm	0
Chip ID	49221
CPU Freq.	240MHz
Flash size	8389608

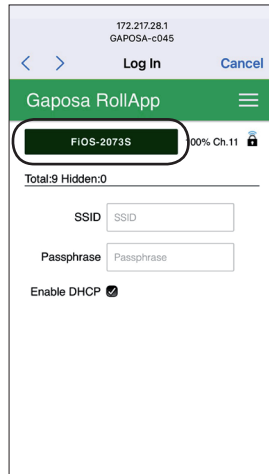
5

Click **Configure new AP**



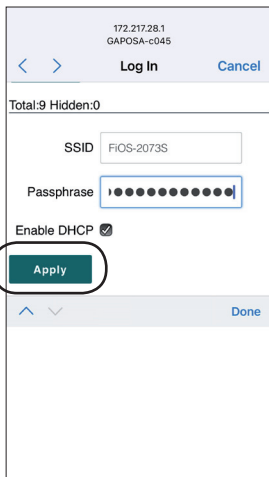
6

A list of visible WiFi networks appears. Please select your home WiFi network.



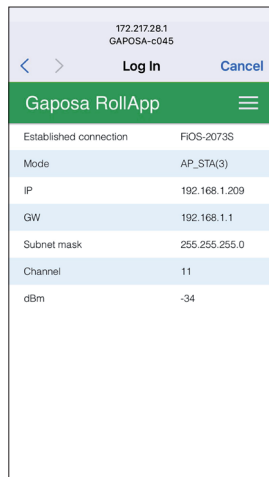
7

Enter your WiFi network password and click **Apply**



8

Exit out of the hub sign in page and reconnect to your home WiFi if it doesn't connect automatically.



9

Download the app from the app store. Search **RollApp**

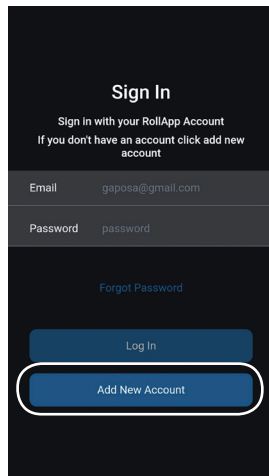


10

Open the app and create an account by clicking

Add New Account

The app will ask for location permissions. Please allow location use for sunset / sunrise control.

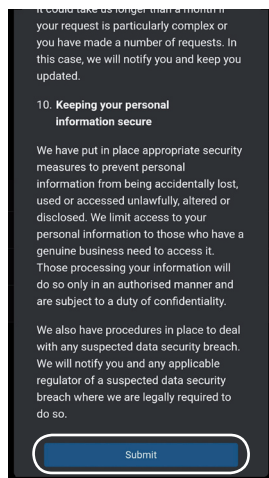


11

Fill out the form with your desired account information.

12

Read the privacy policy and press **Submit** to continue.



13

The app will find your location and auto fill your details. Please confirm this is all correct.

Location	
Site Name	GAPOSA USA
Address	3920 Providence Rd
Town	Newtown Square
County	Delaware County
State	Pennsylvania
Zip	19073
Country	US
Add Location	

14

Once you have created your account, please sign in using the credentials you just created.

Sign In

Sign In with your RollApp Account
If you don't have an account click add new account

Email

Password

[Forgot Password](#)

[Log In](#)


[Add New Account](#)

15

Scan the QR code or enter the serial number.
Click [Register Now](#)
-The app will ask to use the camera to take a picture of the QR code

Register Hub

Scan the QR Code on the base of your LinkIT to register your device.




Serial Number:

Device Name:

[Register Now](#)

16

The app is now setup and you can begin to add rooms and shades.



Favorite Rooms


[No Favorite Added](#)





[Home](#) [Add](#) [Rooms](#) [Settings](#)






PAIRING MOTOR

Before a screen can be controlled from LinkIt, the screen must be synched into RollApp.

- 1. Create a room
- 2. Into the room create the device
- 3. From the handheld remote already paired with the screen, move the screen to the middle. Press and hold in the sync button on the back of the remote until the screen starts moving. As it moves, let the sync button go and press the corresponding Up or DOWN button into Rollapp. Press submit and go to the next one.
- 4. Once you paired all the devices into Rollapp go to the SETUP page of Rollapp and open the“integration” section
- 5. You will see the channel and ID here.

 **Integration**

Id	Location	Name	Stat
0,1	Office	Shade 1	
0,2	Office	Shade 2	
0,3	Office	Shade3	
0,4	Office	Shade 4	





[illegible]**GAPOSA Inc.**

300 Schell Lane Suite 306 - Phoenixville, PA 19460 USA

Tel 484.927.4385