

LoRa/LoRaWAN Gateway Test Instructions

--Built-in NS



Fandesensor

Web: www.fandesensor.com Email: jiang@fandesensor.com TEL/WhatsApp: +86 15902990387

www.fandesensor.com

Gateway Configuration

← → C ▲ 不安全 | http://192.168.1.1/#/login?redirect=%2Fstatus%2Findex

> Connect method 1, connect computer by a cable.

After connecting the lorawan gateway to the power supply, use a network cable to connect the RJ45 port of the computer and the LAN port of the gateway. The computer network card needs to be configured into automatic acquisition

> Connect method 2, connect computer by wifi.

Search wifi network, and connect to "Four-Faith"

➤ The default access gateway IP is 192.168.1.1, the default username and password are admin and admin

	LoRaWAN Gateway 5	
--	-------------------	--

Under commissioning stage, disable the wan interface, so as not to cause the gateway to restart regularly due to online maintenance

	Dashboard / Network / WAN Interface	SC 🔤 🏁	
Overview	Device × Wi-Fi × • WAN Interface ×		
LoRa Packet Logger	Connection Type	Disabled V	
System Log	Wan Nat	Disable Cable	
53 Network ^	STP	Disable 🕥 Enable	
WAN Interface		Sove & Modify	4
WI-FI			
Diagnose			
Firewall			
1/2 LoRa Gateway			
LoRa Network Server			
Status			
Basic			
Gateway			
Application			
Multicast Groups			
Interface			
ତ System ∽			

> If user need set the wifi parameter, please click Wi-Fi menu.



LoRa Gateway

> If user don't have a NS, please select Build-in LoRa Server.

G Status	Dashboard / LoRa Gateway / LoRa Gateway	x 🔤 🖗
Overview	Device - Wi-Fi - WAN Interface - ELORa Gateway -	
LoRa Packet Logger	Basic Frequency Band Set Packet Filter	
System Log	* Gateway MAC	54D084FFFE2E07FF
Network	Protocol	Build-in LoRa Server 🗸
WAN Interface	Keepalive Interval (s)	10
Wi-Fi	Internal UDP Port	1699
Diagnose		● Save & Modify
Firewall		
₩ LoRa Gateway		
III LoRa Network Server		
Status		
Basic		
Gateway		
Application		
Multicast Groups		
Interface		
☺ System ~		

> If user has a LoRa server, please fill in the server IP address and Port.

🖵 Status 🗠	E Dashboard / LoRa Gateway / LoRa Gateway		20 🖬 🖗
Overview	Device - Wi-Fi - WAN interface -		
LoRa Packet Logger	Basic Frequency Band Set Beacon Set Packet Filter		
System Log	- Gateway MAC	54D0B4FFFE2E07FF	
영 Network ·	Protocol	Semtech UDP GWMP Protocol 🗸	
WAN Interface	Server Address	47.90.209.17	
Wi-Fi	Server Port(UDP)	17923	
Diagnose	Server Timeout(ms)	100	
Firewall	Keepalive Interval (s)	10	
🕅 LoRa Gateway	Internal UDP Port	1699	
LoRa Network Server		Save & Modify	
Status			
Basic			
Gateway			
Application			
Multicast Groups			
Interface			
⊙ System ∨			

> Set frequency band and custom frequency based on the application



LoRa Network Server

> Terminal status and uplink/downlink data



Lora Rx Information

	Dashboard / LoRa Network Server / Basic		SC 200 🖗
Overview	Device - Wi-Fi - WAN Interface - LoRa Gateway - Status - Basic -		
LoRa Packet Logger			
System Log	Working Area (Frequency Band MHz)	05915	
	AUK Network ID	000000	Network MonRey Ref. 7 Detect accorded to LEY (or a \$10000)
WAN Interface	Retwork ID	922200000	(Νέοτοιακ Ιομπιμακ (Νέτω, 5 υγίας) Ιαποσοιία και ΠΕΑ (Φ.G. Ο Τυζους)
	Rx 2 Datarate	LoRa/SF12/500kHz	
Diagnose		Save & Modify	
Firewall			
😾 LoRa Gateway			
EII LoRa Network Server			
Status			
Gateway			
Application			
Multicast Groups			
Interface			



Step1 Click application menu then click New application

🖵 Status 🗸	Dashboard / Lo	Ra Network Server / Appli	cation				20 🔤 🖗
团 Network 🗸	Application +						
% LoRa Gateway	ID	Name	Device Number	CreateAt	Auto Add Dev	Description	Operate
LoRa Network Server					No Data		
Status							
Basic							
Gateway							
Application							
Multicast Groups							
Interface							
⊕ System ~							

▶ Input Name and AppKEY, then click Confirm.

🖵 Status 🗠	Dashboard / LoRa Network Server: / Application			20 🔤 🖻
🗟 Network	Application ×			
% LoRa Gateway	+ New application		Description Operate	
LoRa Network Server	New a	lication ×		
		Name TEST1		
		DEFEY 00112233445566778899AABBCCDDEEFF Odefault		
	Auto	d Dev I enabled, LoRaWAN Device will be added automatically after Application EUI and Application Key pass verification.		
	De	iption		
		⊙ Cancel		
			.	
© System ⊻				

Step2 Click View then click Add to add device

Ð	Status ~	E	Dashboard / LoRa Network Se	rver / Application						20 M
68		• Ap	plication × Application Detail ×							
24	LoRa Gateway		Press applications						_	
		1	ID Name		Device Number	CreateAt	Auto Add Dev	Description		Operate
80	LoRa Network Server	,	12 TEST	1	0	2023-03-23 15:19:12	false			© View 🖹 Delete
:	Status									
1	Basic									
	Gateway									
	Multicast Groups									
1	Interface									
ଜ	System									

fon	e					
🖵 Status 🗸	E Dashboard / LoRa Network Server	/ Application Detail				X 🗷 🎴
🖬 Network 🗸	Application × Application Detail ×					
^{KI} LoRa Gateway	Application > TEST1 Device Manage Application Set	Integrations				
E LoRa Network Server	Please Input DevEui	Q Search + Add • Add In Iulk	Delete in Bulk O Export			
Status	ID LastSee	enAl 🗢 DevEUI	Name Type	Join Mode Device addr	Description	Operate
Basic			No Data			
Gateway						
Application						
Multicast Groups						
Interface						
© System ~						

Input DevEUI, select ClassA, Join Mode ABP, and input Appskey, Nwkskey, Dev address, click Confirm

🖵 Status 🖂	Dashboard / LoRa Network Server / Application Deta	и						X 🔤
阔 Network ~	Application - Application Detail -							
	Application > TEST1							
[™] LoRa Gateway	Device Manage Application Set Integrations	New device			×			
III LoRa Network Server	Please Input Devial Q Search	New device			^			
Status	ID LastSeenAT 🗢	* DevEUI	0095690000027517			ir.	Description	Operate
Basic		Name						
Colourau		Туре	ClassA					
Galeway		Join Mode	ABP					
Application		MAC Version	1.0.2					
Multicast Groups		Device addr	23030001					
Interface		Application Session Key	287E151628AED2A6A8F7158809CF4F3C	0 0				
⊕ System ~		Network Session Key	287E151628AED2A6A8F7158809CF4F3C	0 0				
		Description	Description					
				O Carred	O Carlin			
				Cancer	Comm			

Step3 Reset pressure transmitter and trigger access network process. Put the magnet close to the screen and keep it for 3s, shut down the pressure transmitter, then bring the magnet close to the screen to activate the pressure transmitter. If the terminal access successfully, system log prints the Downlink and Uplink data

Status	
Overview	Denors' System * Long Packet Logger * * System LOg *
LoRa Packet Logger	Update log 💽 🗈 Copy 🔒 Clear
System Log	
til Network ∨	time="2023-03-23 16:53.14" level =INFO mage" downlink PhysPapolad = 600100023200000064bc7d3, Gatewayld = 54d0b4fffe2e07ft, Frequency = 923300000, Power = 14, Modulation = LORA, Timing = 1* time="2023-03-23 16:53.14" level=INFO mage" may fait or gateway, addr = 127.00.134412, type = TMACK" time="2023-03-23 16:53.14" level=INFO mage" times physPapola = 60010023200000014bb00376030412 type = TMACK" time="2023-03-23 16:53.14" level=INFO mage" times physPapola = 6001002320000014bb00376030412 type = TMACK"
忧 LoRa Gateway	time= 2025-03-23 to35214 teve=timru msg= sena to gateway, adar = 127.00.145320, type = PushoLK time= 2023-03-23 to35214* teve=DEBUG msg=rcv from gateway; addr = 127.00.145320, type = PushData*
LoRa Network Server	time="2023-03-23 16:35:10" level=INFO mgs send to gateway addr = 127.00.134412, type = NuIACK" time="2023-03-23 16:35:10" level=DEBUG mgg=trv from gateway: addr = 127.00.134412, type = PuIIData" time="2023-03-23 16:35:00" level=INFO mgs=teway: addr = 127.00.134412, type = PuIIDAta"
Status	time="2023-03-23 16:35:00" level=DEBUG msg="rcv from gateway; addr = 127.0.0.1:34412, type = PulData" time="2023-03-23 16:34:59" level=INFO msg="send to gateway; addr = 127.0.0.1:45320, type = PushACK"
Basic	time="2023-03-28 16:459" level=DEBUG msg="rcv from gateway, addr = 127.00.1148320, type = PushOkta" time="2023-03-28 16:2450" level=INFO msg="send to gateway, addr = 127.00.134812, type = PuliACK" time="2023-03-28 16:450" level=INFIDIE msg="rcv from categorage addr = 127.00.134812, type = PuliACK" time="2023-03-28 16:450" level=INFIDIE msg="rcv from categorage addr = 127.00.134812, type = PuliACK"
Gateway	time=2023-03-23 16:34/40 'tevel=DEBUG msg="rcv from gateway; addr = 127.00.134412, type = PuIIAcK' time=2023-03-23 16:34/40 'tevel=DEBUG msg="rcv from gateway; addr = 127.00.134412, type = PuIIData"
Application	time="2023-03-23 16:34-30" level=INFO msg="send to gateway; addr = 127.00.1:34412, type = PuIACK" time="2023-03-23 16:34-30" level=DEBUG msg="rev from gateway; addr = 127.00.1:34412, type = PuIData" time="2023-03-23 16:34-30" level=DEBUG msg="rev from gateway; addr = 127.00.1:34412, type = PuIData"
Multicast Groups	time= 2023-03-23 1624/29 1evee114/VU msg = send to gateway, addr = 127.00.145320, type = Pushkuk.k time= 2023-03-23 1634/29 1evet= DEBUG msg = "rcv from gateway; addr = 127.00.145320, type = Pushbata"
Interface	
System	
System	
Change Password	
Reboot	
Restore Defaults	

Step4 Click View to check the device status.

ius ···	Dashboard /	LoRa Network Server	Application Det	ail						20 AB
twork ~	Application ×	pplication Detail								
	Application > TEST	[1]								
Ra Gateway	Device Manage	Application Set	Integrations							
Ra Network Server	Please Input DevEu		Q Search	+ Add O Add In Bulk	Delete in Bulk	⊖ Export				
	0	LastSeer	AT 🔶	DevEUI	Name	Туре	Join Mode	Device addr	Description	Operate
	. 9	nev	er	0095690000027517	dev_00027517	A	ABP	23030001		© View 🖹 Delete
way	Total 1 10/pa	ge 🗸 🤇 <mark>1</mark>	Go to	1						L
vay cation ast Groups	Total 1 10/pa	ge v < 1	Go to	1						L
vay cation ast Groups ace	Total 1 10/pa	ge 🗸 🤇 1	Go to	1						L
way cation cast Groups ace tem ~	Total 1 10/pa	ge v < 1	> Go to	1						
vay Lation ast Groups Ince em v	Total 1 10/pa	ge ~ < 1	> Go to	1						L
vay attion ast Groups ce	Total 1 10/pa	ge ~ < 1	> Go to	1						L

Step5 Click debug and send setting data.
 Modify the Fport and data type according to the device info.

🖵 Status 🗸 🗸	Dashboard / LoRa Network Server / Device						20 🖾 🖻
🗟 Network 🗸	Application × Application Detail ×						
🕅 LoRa Gateway	Application > TEST1 > 0095690000027517 (dev_00027517) Overview Configure Activation Debug						
E LoRa Network Server							
	Timed sending 10 + Second	Update log: 🧲					🗈 Export 🗎 🖻 Clear
Status		Data ty	pe Receiving time	GatewayID	R\$SI	SNR	Data
Basic	FPort - 10 +			No Data			
Gateway	Confirm type O UnConfirmed Confirmed						
Application	Data type O ASCII O HEX						
Multicast Groups	Data For example: 0102030405						
Interface	*						
⊕ System ∽	⊯ Send B Clear						
Status	Dashboard / LoRa Network Server / Device						X 🛯 🖗
	Device ×						
⊠ Network ✓	Application > test1 > 0095690000027517 (test)						
채 LoRa Gateway	Overview Configure Activation Debug						
LoRa Network Server							
Status	Timed sending 10 + Second	Update log:					D Export 🗎 Clear
Basic		Data ty	pe Receiving time	GatewayID	RSSI	SNR	Data a5 5a ef 12 01 5f 68 11 02 04 00 00 03 e8 87 e4 55 a
Dasit	FPort - 1 +	> Uplin	2023-03-23 15:25:01	54d0b4fffe2e07ff	-41	13.8	a
Gateway	Confirm type O UnConfirmed Confirmed	> Uplin	2023-03-23 15:24:54	54d0b4fffe2e07ff	-40	11	a5 5a 10 12 01 5f 68 f1 34 d5 00 00 00 00 a8 4a 55 8a
Application	Data type ASCII O HEX	> Downli	nk 2023-03-23 15:24:45		0	0	a5 5a ef 24 01 5f 68 f1 02 04 00 00 00 00 02 04 00 0 0 00 00 6d 8c 55 aa
Multicast Groups	Data a5 5a ef 24 01 5f 66 f1 02 04 00 00 00 00 02 04 00 00 00 00 6D 8C 55 aa	> Uplin	2023-03-23 15:23:21	54d0b4fffe2e07ff	-40	14	a5 5a ef 18 01 5f 68 f1 02 04 00 00 03 e8 03 04 00 0
Interface							0 00 00 ab 74 55 aa a5 5a 10 12 01 56 68 f1 34 dc 00 01 00 00 69 c7 55
System	7 sena El Cirear	> Uplin	2023-03-23 15:23:15	54d0b4fffe2e07ff	-42	13.8	88
System		> Downli	nk 2023-03-23 15:23:04		0	0	a5 5a ef 24 01 5F 68 11 03 04 00 00 00 00 02 04 00 0 0 00 00 ae 71 55 aa
Change Password		> Uplin	2023-03-23 15:22:42	54d0b4fffe2e07ff	-42	11.8	a5 5a 10 12 01 5f 68 f1 34 00 00 01 00 00 ba 16 55 a8
Reboot		> Uplin	2023-03-23 15:22:01	54d0b4fffe2e07ff	-43	12.3	a5 5a 10 12 01 5f 68 f1 34 d5 00 01 00 00 68 5f 55 a 8
Restore Defaults		> Uplin	2023-03-23 15:22:00	54d0b4fffe2e07ff	-43	16.3	a5 5a 10 12 01 5f 68 f1 34 d6 00 01 00 00 68 5f 55 a
							a5 5a 10 12 01 5f 68 f1 34 d6 00 01 00 00 68 5f 55 a

Gateway System Set

NTP Server

← → C ▲ 不安全	http://192.168.1.1/#/system/system
Status	E Dashboard / System / System
⊠ Network ~	Device * System *
🕷 LoRa Gateway	Basic language
	System Params
LORA NETWORK Server	System Version STD_20221031-1459
Status	Token valid 2592000 When the token expires, you need to log in again
Basic	time(Sec.)
Gateway	Time Settings
Application	NTP Client Disable C Enable
Multicast Groups	Time zone UTC+08:00 V
Interface	Server IP/Name
ூ System ∧	Save & Modify
Change Password	
Reboot	

Language Set

🖵 Status 🗸 🗸	Dashboard / System System
⊠ Network ⊻	Device × System ×
🕅 LoRa Gateway	Basic language
LoRa Network Server	Switch Language
Status	○ 箴体中文 ● English
Basic	
Gateway	
Application	
Multicast Groups	
Interface	
ତ System ∧	
System	
Change Password	
Reboot	
Restore Defaults	

Gateway Time Manual Set

Open a new tab, input 192.168.1.1:8088 Click 设定, then click 应用

	Wireless Mobile Router 2G/3G/4G/5G	國件: F8L10GW-10TGW-32M v2.0 (Nov 9 2022 16:30:04) std 时间: 16:17:44 up 1:16, load average: 0.67, 0.66, 0.57 WAN: 已禁用		
本地IP地址 子何獲码 阿夫 本地DNS	192 160 1 255 255 0 0 0 0 0 0 0	忽带望的起始地址。 每大DHCP用户数: 您可以限制您的酒由醫分配出的地址 个数。0季元只分配预先设定的静态 地址。		
WAN编口 指留WAN口为交换口(WAN口交 口)	交換 🔽	时间设置: 请选择您所在的时区和夏令时 (DST)期间。本路由赣可以使用本 地时间或者UTC时间。		
PHHataLingSatulat (UHCP) DHCP 脱気 DHCP 脱気器 記録IPIS社 環大DHCP用户数 零产調配分前间 静志DNS 1 静志DNS 2 静志DNS 3 WINS 为DHCP使用DNSMasq 以DHCP为准	DHCP 服务器 > ● 屈用 ● 禁用 192.168.1. 50 1440 分钟 0 0 10 0 10 0 10 0 10 0 10 0 10 0			
6)(同2)資 NTP客/-満 时区 夏令訂 (DST) 服务器(P)主机名	 ⑥ 屈用 ○ 禁用 [UTC+08:00 ▼) [无 ▼] 			
時间問題				