

# Analog Fax GSM Gateway



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## Overview

Welcome to use the Link Gate FAX which supports voice, data and fax. Please read this instruction carefully before use.

The Link Gate FAX has the basic telephony function by easily connecting to telephone set, and it can also connect to fax machine to send/receive faxes. The device is available to use in areas where the cable and telephone installation are not accessible.

### 1. Application environment & important notes

Before use, please make sure the radio-frequency signal is not shielded in your location, and learn about some important notes as below:

#### 1.1 Notes for baby & children

Never allow baby & children to play with this device. They might get hurt by the antenna or hurt others with it. They might destroy the ports or increase your cost by randomly dialing and getting through some telephone number.

#### **1.2 Explosive area**

Never use this device in an explosive area or an area where there's a sign marked with "Shut down the wireless transceiver".

#### 1.3 Potential explosive atmosphere

Never use this device in a potential explosive atmosphere, like in a gas station, a vehicle or a warehouse with chemicals, combustible liquid/gas inside.

#### 1.4 Antenna's maintenance and change

The damaged antenna can no longer be used. Please contact our company or the vendor to change another one. Our company shall not take any responsibilities if the device is in abnormal operation state by using unqualified antenna or install other parts and accessories.

Please comply with the operation procedure in this instruction book for the sake of a safe and efficient use of this device.

The antenna should be kept vertical and away from barriers in order to get the best quality of conversation.

#### 1.5 Adaptor

We suggest that you use our company's adaptor which is a necessary accessory of this device.

The damaged adaptor can no longer be used. Please contact our company or the vendor to change another one. Our company shall not take any responsibilities if the device is in abnormal operation state by using unqualified adaptor or install other parts and accessories.

## 2. System installation

$\bigcirc$				
Antenna	off/on	Power	Fax	Phone

This device is based on GSM network, so a valid SIM card must be installed before use.

- 1) Plug one connector of standard phone cable to the phone, and plug the other end to the port on the panel marked with "telephone" on the back of the device.
- 2) Plug one connector of standard phone cable to the fax machine, and plug the other end to the port on the panel marked with "fax machine" on the back of the device.
- 3) Screw down the connector of the antenna to the bolt stick on the panel marked with "antenna" on the back of the device.
- 4) Make sure the switch of device is off, then plug the input connector of the adaptor to the AC power socket, and the output connector to the "power" port on the back of the device.
- 5) The device is in start-up state once the power is switched on. Users can use the device when the start-up succeeds reflected with the signal indicators on.

## 3. User Instructions

### **3.1 Indicator Instructions**



- The power indicator (red) indicates whether the power get through or not. The indicator light is on when the device is power on; the light is off when the device is turned off.
- 2) The network indicator (green) indicates whether the device get connected with network or not. The indicator light flickers slowly with network connected, while it flickers fast with network disconnected, this indicator is ever light during conversation.
- 3) The working indicator indicates the current working mode. The indicator light is off in

voice mode while the indicator light is on in fax mode.

4) The signal intensity indicators (green) display the current signal intensity. When the signal is stronger, more indictor lights will be on, vice versa.

### 3.2 System Initialization

- 1) When the system is power on, the signal intensity indicator, working indicator and power indicator lights are on.
- 2) When the system completes initialization, the power indicator light is on and the working indicator light is off; the network indicator and signal indicator reflect the network and signal intensity respectively.

#### **3.3 Telephone Functions**

#### 3.3.1 Dial the phone

- 1) Off-hook: pick up the handset and the dialing tone can be heard;
- Dial-up: dial the called number (it can speed sending by adding "#" after the dialing number);
- 3) Conversation: the conversation begins when the called party picks up the phone;
- 4) Release: the calling part releases with on-hook.

#### 3.3.2 Answer the phone

When the telephone rings on, answer the phone by picking up the handset.

#### **3.4 Fax Functions**

#### 3.4.1 Send faxes

Users can send faxes through the fax machine connected to the device, and the operation method is the same as ordinary fax machine.

#### 3.4.2 Receive faxes

Users can receive faxes through the fax machine connected to the device, and the operation method is the same as ordinary fax machine.

## 4. Technical Parameters

### **4.1 Featured Technical Parameters**

Item	Parameter	Note	
Air interface	Meet GSM standard		
Working voltage	AC220V $\pm$ 20%(DC24V/DC12V optional)	Please check the enclosed	
	The actual specifications please see the	adapter' voltage	
	mark of enclosed adapter.	matches to local	
		voltage.	
Environmental temperature	-10°C~+45°C	Device working under	
		special temperatures	
		needs to be customized	
Humidity	45% $\sim$ 95% (without dew)		
Atmospheric pressure	86~106Kpa		
Environmental noise	<=65dB		
Emission power	2W(900MHz)/1W(1800MHz)		
Sensitivity	-104dBm		
Antenna gain	>0dB		

## 4.2 Parameters of DTMF interface (RJ-11 telephone interface)

Dialing tone frequency	450Hz
On-hook voltage	$48V\!\pm\!10\%$
Off-hook current	20mA/40mA

### 5. Troubleshooting

#### 5.1 Network

The GSM fixed wireless terminal needs about 15 seconds to search for local GSM network (specific time spent subject to local network conditions).

#### 5.2 Power supply

When the power supply switches on, the power indicator light is on. If the power supply switches on but the power indicator light is off, then please check:

- a) The power cable, the plug and power supply is normal or not
- b) If there're no errors found through checking the above items and the breakdown cannot be excluded, please contact the vendor for help

### 5.3 FAQ

- Q: How long after startup can I dial the phone number or send/receive faxes?
- A: The startup takes about 15 seconds, then the signal light is on, and the system operates in normal state.
- Q: Can I send/receive faxes by connecting the fax machine to the telephone port?
- A: No, only the fax machine connects to the fax port can it send/receive faxes.
- Q: Why it spends a long time to connect to network after I dial the number?
- A: Please dial "#" after dialling the number, then the device will send the number immediately.
- Q: Can I use the ordinary SIM card to send/receive faxes?
- A: No. The SIM card has two numbers the main number and associate number. The main number sets up voice and G3 fax functions, implementing calling and fax outbound respectively; the associate number sets up G3 fax function to receive faxes. The two numbers are different, please contact local operator for details. As for the data set-up for

mobile SIM card, the G3 fax standard must choose TS62, namely GSM AUTOMATIC G3 FAX. Choose the speed rate as 9600bps to activate mobile fax business, then the SIM card need to cancel the VPN to become ordinary user.

- Q: When I send/receive faxes, can I make conversion first and then send faxes like fixed fax machine?
- A: No. This function requires that GSM network should support TS61.
- Q: Which kind of fax machine is ideal for me to choose?
- A: We suggest you choose laser fax machine.
- Q: Why the pages draw out when I use my thermal fax machine to receive faxes?
- A: The reason is that the thermal fax machine's feed speed cannot synchronize with the network data input speed. This situation also appears when the thermal fax machine connects to PSTN to receive faxes. It will return to normal to use laser fax machine instead.

## ▲ Notes

- 1. Please do not open the cover of device to repair without permission.
- 2. The company shall not take any responsibilities for the device's abnormity caused by changing adaptor without permission.
- 3. Please check the enclosed adapter' voltage matches to local voltage.

