3G WCDMA FWT-8848

User's Manual

3G WCDMA FWT-8848 Version 1.0 -2014

1, General Description

3G WCDMA FWT-8848 is a WCDMA to Analog Converter(single port, insert 1 sim card only), the device can produce a FXS line to allow a regular phone to be connected and u sed just like a local landline(PSTN) except your calls will go out the GSM network. This device can both receive and make calls.

The main application is: Connecting the RJ-11 FXS line to connect Ordinary telephone set for voice call; to connect PBX for call extensions; to connect billing systems for public phone use; to connect VoIP FXO gateway to realize VoIP call termination; to connect alarm system for security purpose, etc. It is not a VOIP gateway, nor a GSM+VOIP gateway, It is a GSM Fixed Wireless Terminal that produces an analog FXS phone line .

Module employed:

● Longsung U6100

3G Tri-Band UMTS/HSDPA/HSUPA（WCDMA/FDD）：850/1900/2100 MHz

2G Quad-Band GSM850/900/1800/1900Mhz

Appearance and Structure

Item	3G WCDMA FWT-8848	Remark
Appearance		White/black
Material	ABS (Acrylonitrile Butadiene Styrene)	
Dimension	170mm×118mm×30mm	Excluding antenna
Weight	250g	Weight of Main

		unit
Power Switch	Rocker switch	
Power Socket	12V DC input	
Phone interface	RJ11	2 RJ-11 ports
Antenna interface	SMA-female	
LED display	No.1: Power, No.2.in use, No.3, in talk, No.4, Battery, if have, No. 5-7, Signal strength	From left to right(front side view)
Front side	LEDs display for Signal strength, Power, Working Status,Talking and Battery indicator;	
Rear side	1pcs SMA antenna connectors, 2 RJ-11 output, Power port and switch;	
Bottom side	1pcs Sim card holder slots, you can insert Sim card into the slot .	

2, Features:

1) It is a 1 port WCDMA FWT which has 2 RJ-11 outputs for extensions;

2) It can connect with ordinary telephone set, PBX , VOIP Gateway, Billing meter etc.

3) Employ industrial module to make

4) Simple to install and easy to maintain

5) Steady module and reliable design ensures good performance

6) Provides optimized circuit directly connecting the exchange device for extensions

7) Compatible to most telephones, PBX device.

8) Strong signals with high gain antenna

9) Attractive plastic casing

10) SIM card supported (1.8V, 3V)

11) Caller ID display

12) Provides reversal polarity signal for metering

13) No noise and clear voice

14) Suitable for wide voltage range and low power consumption

15) Suitable for all kinds of weather and environment

16) Locking PIN / network (optional)

3,Technical Specifications:

Air interface standard:

Longsung U6100 is a wireless module which is designed for the global market. It is a consumptive product; it can be designed in many kinds of applications which can work on HSPA/UMTS/EDGE/GPRS/GSM network.

U6100 support the Bands as the following:

3G Tri-Band UMTS/HSDPA/HSUPA (WCDMA/FDD): 850/1900/2100 MHz;

2G Quad-Band GSM: 850/900/DCS1800/PCS1900 MHz

Phone interface: supply RJ-11 Phone Interface

Hanging voltage: 45V

Picking off voltage: 30mA / 41mA

Dialing tone Frequency: 450Hz

Antenna interface: Antenna amplifying>2.5db

Sensitivity:<-104DBM

Transmitting power<3W

Color: White /Black (optional)

AC-Adapter interface: Input: AC 110~240VAC   50~60Hz

                                Output: 12DC 1A.

AC-Adapter type: EU, US, AU, British can be optional

4, Operation Circumstance:

Operation temperature: -10c~60C

Storage temperature:-20C~70C

Operation humidity:45%-95%

Atmosphere pressure:86-106Kpa

Environment noise: <60DB

Transmitting Power:2W

Sensitivity: <-104dbm

Antenna Amplifying: >2.5db

Dialing frequency: 450Hz

Hanging voltage: 45V

Picking current: 30mA/41mA

5, Packing List

Name	Quantity	Remark
3G WCDMA FWT-8848	1pcs	3G/2G
Ac- adapter	1pcs	AC-110-240V, DC12V/1A
Antenna	1pcs	Magnetic Antenna with 3m cable
User's Manual	1pcs	English

G.W: 0.75kg per unit. 20pcs/Carton, 16kg /Carton

Corton Box Size: 55cmX34.5cmX32.5cm

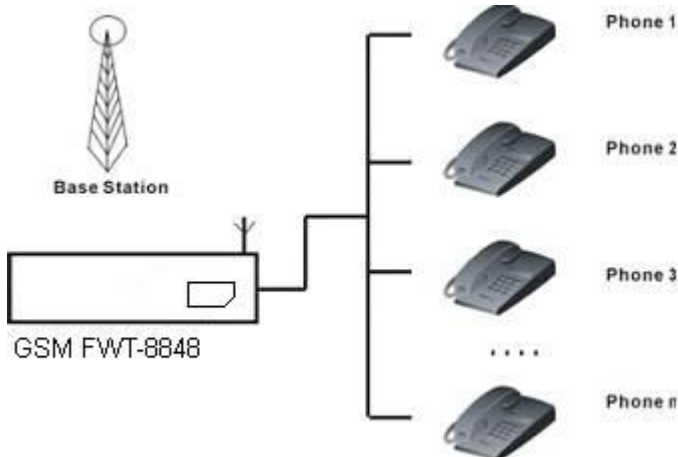# 6,Installation And Connection

The Condition for Installation

The terminal asks for 110- 220V AV power supply. It must be installed in the area where the GSM network can cover. The strength of the signal can affect the quality of voice.

1. Insert SIM card into the SIM card holder at the back of the terminal.
2. Install antenna. In order to ensure the quality of voice, antenna must be put beyond 1.5 from the telephone and terminal.
3. On end of the telephone line connects to the "Phone" port of the terminal, the other end connects to telephone.
4. "Power" port connects to power adapter that is connected to 110-220V AC power supply.

1) The Installation for Connecting to Ordinary Telephone

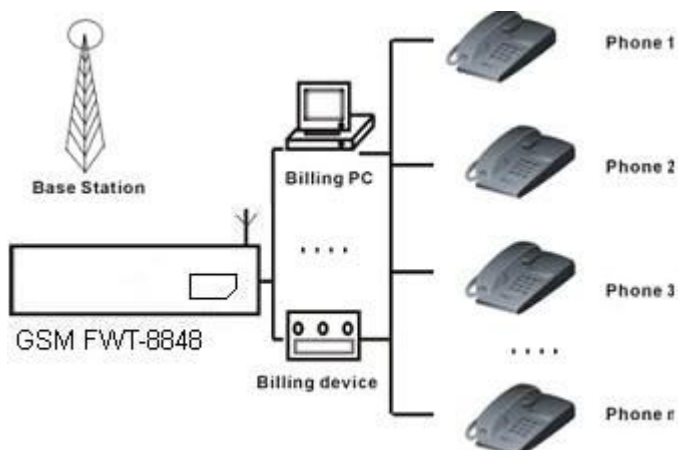The Sketch for connecting ordinary Telephone

Draw your attention: Because there are many types of ordinary telephone and their electric parameters are different. In order to avoid mutual disturbance between telephone and terminal and affect voice quality. The distance between telephone and terminal is 1.5m at least.

2) The installation for connecting to billing device for metering
If the users demand to register cost during calls, billing device can be connected between terminal and ordinary telephone. Billing device register cost according to the anti-polarity signal that is provided by terminal.
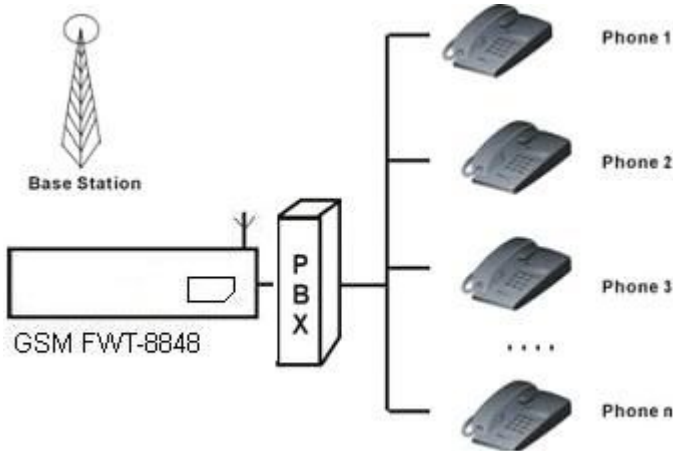
The sketch for connecting to Billing device or Computer charging system

3) The installation for connecting to PBX for call extentions

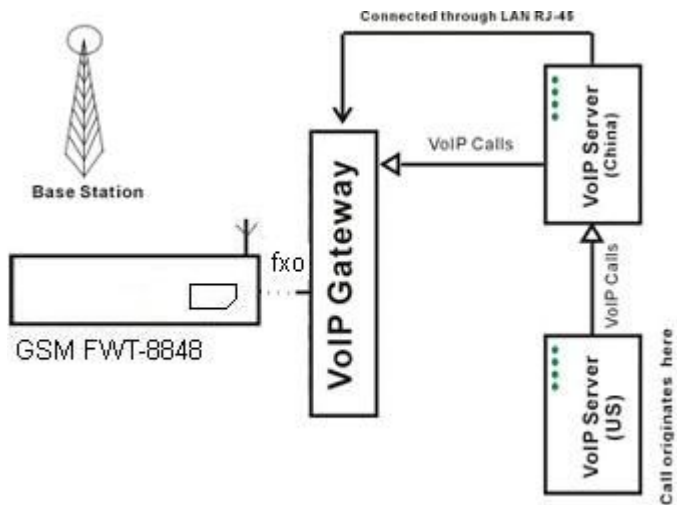If users want to connect small PBX to this terminal, connect terminal's "Phone port" to the PBX.

The sketch for connecting to PBX device.

4) The installation for connecting VoIP gateway for Call Termination

Suppose a VoIP call originates from US, which was transferred from US Server to China Server on VoIP, finally the call will be terminated from internet to GSM network and to be sent out to the destination answer side.
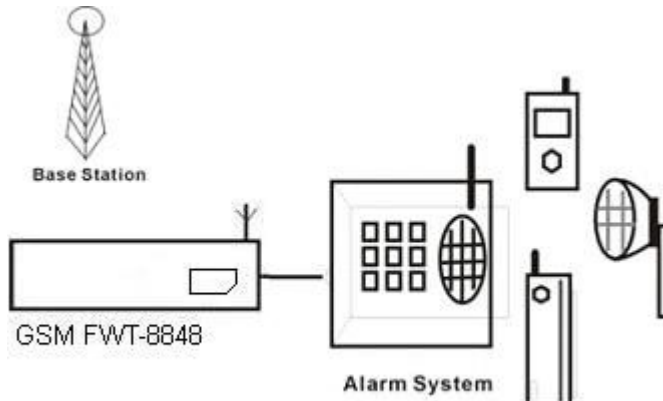
The sketch for connecting to VoIP gateway

5) The installation for connecting to alarm system for Security

The GSM FWT can substitute the PSTN for connecting to alarm system for

security purpose when PSTN failure or not available.

The sketch for connecting to alarm system

7, Function Setting

Before you do the following function settings, Lift handset or press hands free key of telephone set, then you can press the buttons according to the following instructions to finish setting, you will hear 2 beeps when you finish, this testify setting successfully.

1) Restore to factory default setting
*#99#99# restore to factory default setting.

2) Adjust dial interval
*#01#30# , 01--command，30--time，Max 9.9 seconds，Min 0.5 seconds, default setting is 3 seconds.
*If you use GSM FWT-8818 for connecting to VoIP gateway, you can set dial interval as 0.5 second, it can make PDD<5 sec (Method: *#01#05#);
*If you use GSM FWT-8818 for connecting telephone, PBX, billing device, you can set dial interval as 3 seconds or 5 seconds as you like (Method: *#01#30#, set the dial interval as 3 seconds).

3) Adjust Earphone Volume
*#02#15#   02--command，15--volume，Max 16，Min 1, default setting is 15.

4) Adjust Mic. Volume (sensitivity)

*#03#10# 03--command，10--amount，Max 16，Min 1, default setting is 10.

5) Setting local area code
*#04#*0755#   10--command，*0755—area code，Max 5 numbers, use "*" instead if area code is less than 5 digits.

6) Setting IP numbers
#05#17911# 05--command，17911—IP numbers，Max 5 numbers, use "" instead if IP number is less than 5 digit.

7）Hide Caller ID (been sent out)Setting
*#13#01#   13--command，01--value，Max-02，Min-00   Default setting is 00

00-- presentation indicator is used according to the subscription of the CLIR service

01 – CLIR allowed

02 – CLIR prohibited

Notice: This Setting need GSM carrier support.

8) Bar incoming call Setting
*#14#00# 14--command，00--value，00--no barring, 01--set barring   default setting --00

9)FSK setting (optional) (should confirm before order)
*#17#00# setting caller ID
17-order, 00-value, 00-DTMF, 01-FSK, default setting is 00
This setting need terminal has FSK Chip set support

10) Billing Mode setting
 *#15#00#
15--command, 00-value, 01-reversal polarity, 02-12 KHz, 03-16 KHz, default setting-- 01

11）IMEI change Setting (for Quad Band M35 Module only)
1. Write IMEI to RAM
*#18#IMEI no.#, 18--command, IMEI No. --15-digit IMEI no.
2. Check IMEI, if it is right, and then write it to module.
*#19#IMEI no.#, 19--command, IMEI No. --15-digits IMEI No.

Notice: Step 1 and Step 2, IMEI no. must be same.

12) Pin Lock &Network Lock Setting (optional)(Should confirm before order)

2)PIN Lock

1, Set to open PIN code check and automatic PIN lock function

*#07#*1234#   07-command, 1234- the current SIM card PIN code

If set sucessfully, the device will open PIN code check, and automatically change the current SIM Card into "PIN on" from "PIN off"

2, Set to close PIN code check and auomatic PIN lock function

*#08#*1234#   08-command, 1234- the current SIM card PIN code

If set sucessfully, the device will close PIN code check and automatic PIN lock function.

3, Set to change PIN code, open automatic PIN lock function

*#09#1234*56785678# 09-command, 1234- the current sim card PIN code, 5678-new PIN code. (5678 can be any other 4 digits number, suppose you can use 2009).

If set successfully, the device will change the current sim card PIN code as you want.5678, or the any other 4 digit PIN codes, and open automatic PIN lock function.

2)Network Lock

1,Set to open Network lock function

*#10#01234# 10-command, 01234-password

2,Set to close Network lock function

*#11#01234# 11-command,01234-password

3,Set the Network codes

*#12#1*46003*46003# 12-command,1--No. Of IMSI, 46003--the IMSI code for China Telecom

*#12#2*46000*46000# 12-command, 2--No. Of IMSI, 46000--the IMSI code for China Mobile

8,Making Calls and Answer Incoming Calls

Making Calls

1. Lift the handset or press "hand-free" key, you will hear dialing tone, then you can dial the telephone numbers you want to call.
2. Dialing: dialing the telephone numbers you want to call
3. On completion of dialed digits, you can press "#" to transmit the called telephone numbers. If you don't dial any key for continual 3 seconds during the dialing, terminal transmits called telephone numbers automatically.
4. During calls, if the telephone numbers is not free ones, the terminal sends out anti-polarity signal.
5. If the calling party or called party hangs up, the terminal stops sending out anti-polarity signal.

Answering Incoming Calls

When some calls are coming in, if the connected telephone has the function of displaying incoming calls, the telephone rings and displays the incoming telephone numbers. Now users can lift the handset or press "hand-free" to answer it.

Warranty Card

Please fill in the blanks carefully, and keep it properly as the voucher for warranty.

Type of Equipment	3G WCDMA FWT-8848		
User's name		Contact with:	
Contact Tel.no.			
Address			
Date of Ex-works			
Date of Maintenance	Damage	Management	Maintainer
Sales Agent (Stamp)		Purchasing Date	