

KN518 VOIP Motherboard

User Manual

1 Description

IP board-casting PCB Board support many connectors, including 4 shortcut key, LCD screen, keypad, handset, double wan port and so on. It can be installed with waterproof telephone, auto-dial telephone, emergency telephone, elevator intercom, door phone, broadcasting intercom and etc. The application is very wide.

2 Basic function

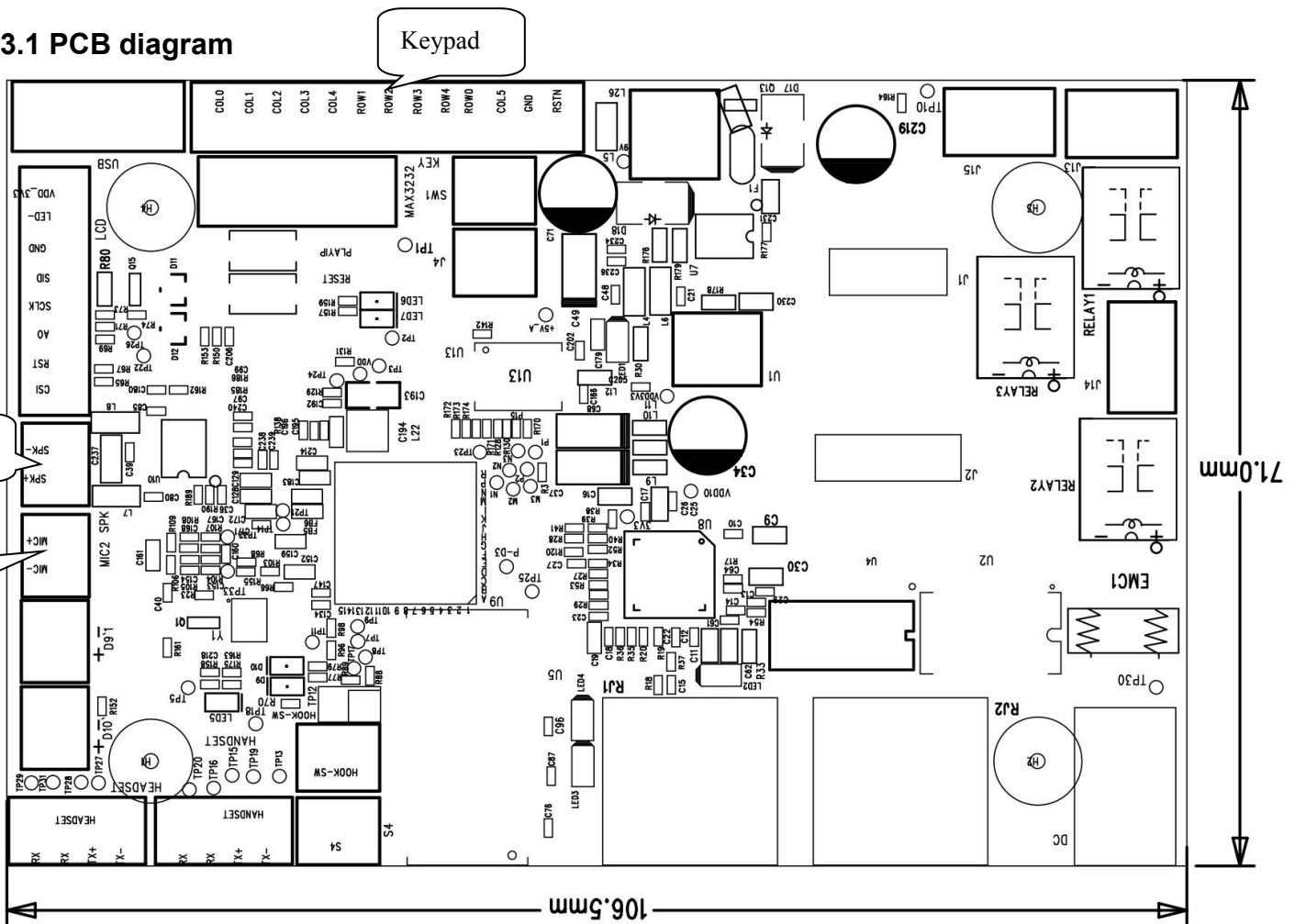
- Support standard SIP 2.0(RFC3261)and RFC protocol,
- Support directly calling to dispatcher station,
- Support alarm, monitor, talking and broadcast,
- Support common line talk back system,
- Adapt high-tech echo cancellation,
- Support handset, speaker and alarm adjustment,
- Support G.729、 G.723、 G.711、 G.722、 G.726 coding and etc,
- Support system record and check the recording files freely,
- Set through Web(Default IP: 192.168.0.55)
- Support upgrade online,
- Waterproof and dust-proof design.

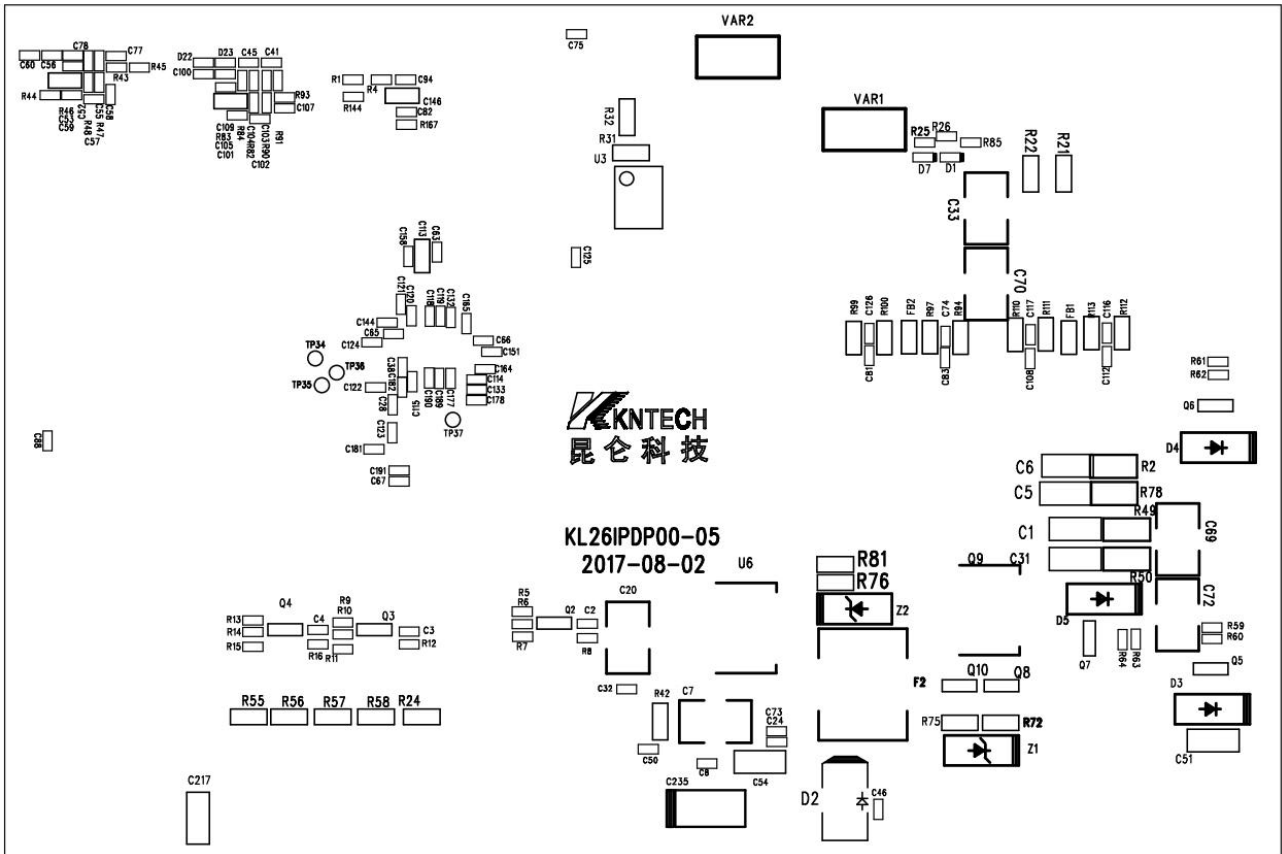
3、 Technical data

Protocol		SIP 2.0(RFC-3261)
Main chip		DSPG518
Keypad	Design	Stainless steel
	Number of direct keys	1、 2、 3、 4 (available)
	Digital keypad	Available
Voice	Mic	1 pcs
	Speaker	2W

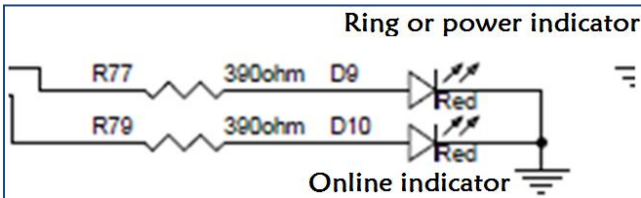
	Volume control	available
	Duplex Hnads	Support(AEC)
	Handset	Support
Speech stream	Support	RTP
	Codec	G.729、G.723、G.711、G.722、G.726
Connector	Power supply	12V 1A DC or PoE
	PoE (not allow IPGB-1)	PoE 802.3af (Class 1) 48V
	LAN	10/100BASE-TX s Auto-MDIX, RJ-45
	WAN	10/100BASE-TX s Auto-MDIX, RJ-45
	Cable specification	UTP or higher then UTP
	LCD	Support
Feature	RS232	Support
	Working temperature	-40°C-50°C
	Relative humidity	10% - 95%
	Storage Temperature	0°C to 55°C
	IP rating	IP53

3.1 PCB diagram





3.2 Indicator connection



LED D9 is Registration status indicators, If the connection is correct, the indicator will long light.

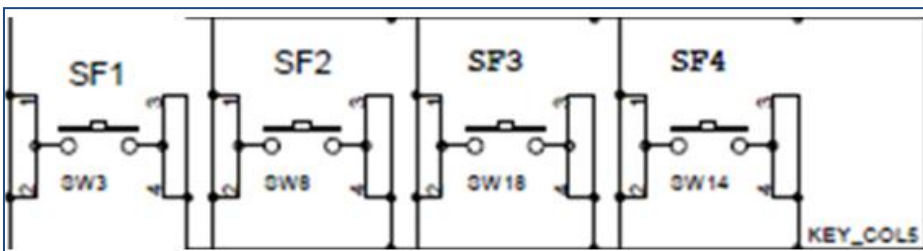
3.3 Speed dialing (It needs handset)

soft1(SW3):KEY-COL5 and KEY-ROW1

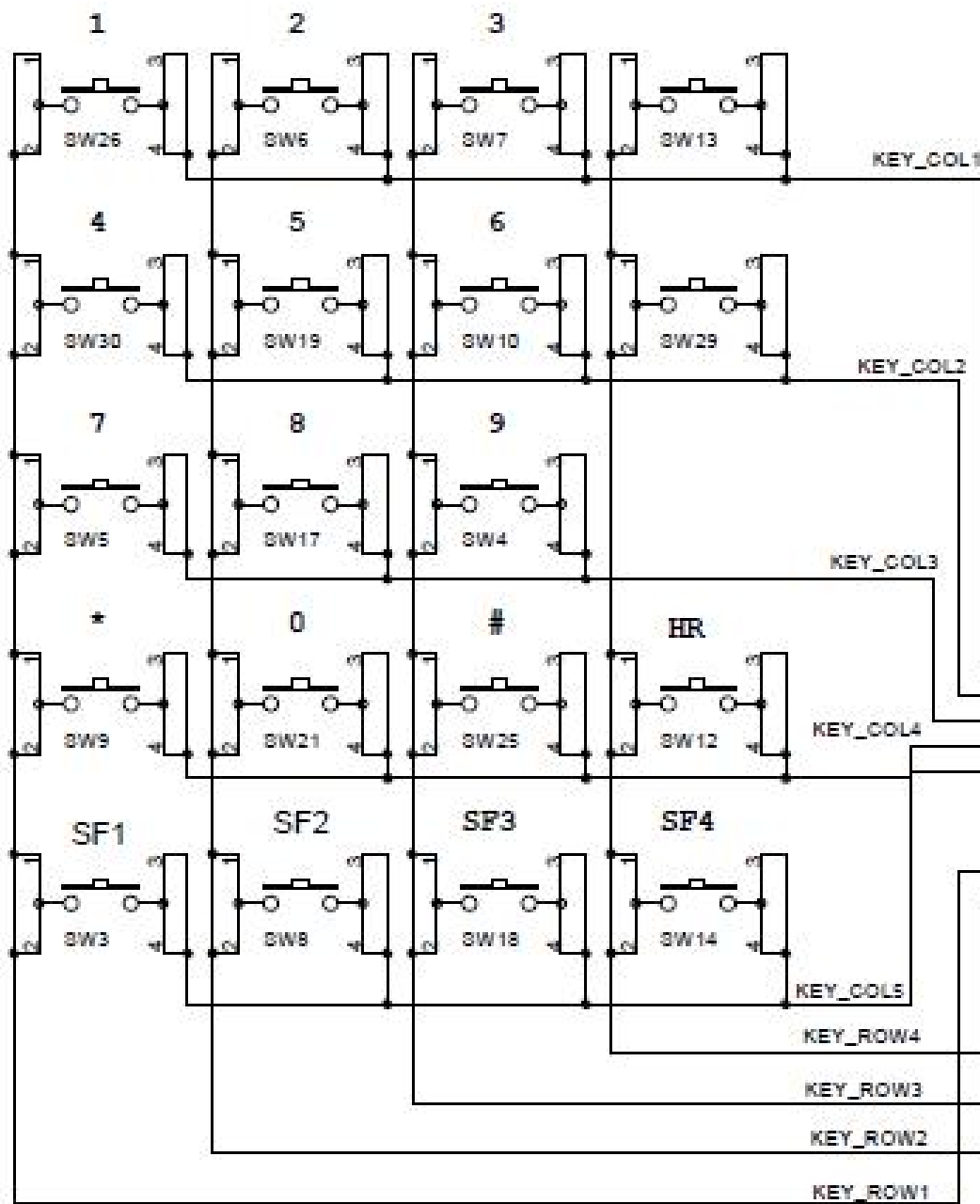
soft2(SW8): KEY-COL5 and KEY-ROW2

soft3(SW16): KEY-COL5 and EY-ROW3

soft4(SW14): KEY-COL5 and KEY-ROW4



3.4 Full Keypad



PIN Definitions

	PIN Definitions	Usage	PIN	PIN Definitions	Usage
1	RELAY1		22	SID	Data
2	RELAY2	Alarm	23	SCLK	clock
3	COL0	Keypad IO input	24	AO	
4	COL1	Keypad IO input	25	RST	Module reset
5	COL2	Keypad IO input	26	CS	Chip selection

5	COL3	Keypad IO input	27	TX+	Handset/MIC +
7	COL4	Keypad IO input	28	TX-	Handset/MIC -
8	COL5	Keypad IO input	29	RX-	Handset/speaker -
9	ROW0	Keypad IO output	30	RX+	Handset/speaker +
10	ROW1	Keypad IO output	31	GND	Earthing device
11	ROW2	Keypad IO output	32	GND	Earthing device
12	ROW3	Keypad IO output	33	MIC+	Handsfree/MIC +
13	ROW4	Keypad IO output	34	MIC-	Handsfree/MIC -
14	RSTN	Keypad IO output	35	GND	Earthing device
15	GND	Earthing device	37	SPK-	Handsfree -
16	HOOK	Hook defection	38	SPK+	Handsfree +
17	VDD	Power supply	39	-	
18	LED	Backlight control	40		
19	GND	Earthing device			

4. Operation

4.1 Setting via Web Browse

Set the computer and telephone in same LAN network;

When this phone and your PC are connected to network, open the Internet Explorer and then enter the IP address of the WAN port in this phone (e.g. <http://xxx.xxx.xxx.xxx>). (If the log port is not standard port 80, you should input [http://xxx.xxx.xxx.xxx: xxxx/](http://xxx.xxx.xxx.xxx:xxxx/)) See the following web interface.

User: admin

Password: admin

The screenshot shows a web interface titled "Device Configuration". It contains three input fields: "User:" with the text "admin" entered, "Password:" with six dots, and "Language:" with a dropdown menu showing "English". Below these fields is a "Login" button.

※ if you didn't save the setting, the system would the configuration last time when powered on next time. After changing the parameter, click **【Maintenance】**→**【SAVE】**, the configuration will be saved and take effect soon.

Before the below steps, please register the phone on your server. The solution **【SIP CONFIG】** →**INPUT THE SERVER INFORMATION**

4.2 WEB Configuration

4.2.1 Status

STATUS	
Field Name	Explanation
System	Shows the model number, and current time, status and IP address
Network	Shows the status of connection and other information
Accounts	Shows the status of registration

The screenshot shows the 'STATUS' page of the web configuration interface. At the top right, there are three tabs: 'System' (selected), 'Network', and 'Accounts'. On the left side, there is a vertical sidebar with buttons for 'Status', 'Config', 'Sip Config', 'Maintenance', and 'Logout'. The main content area displays the following system information:

Phone Model:	KN-PB2
Current Time:	Thu Jan 1 12:37:55 1970
Network Status:	Usable
IP Address:	192.168.0.66

4.2.2 SIP config

Get your SIP account from your server

Fill the IP address, port, account name, password and number as below.

	SIP 1	SIP 2	SIP 3	SIP 4	SIP 5	SIP 6
Sip Enable:	Enable					
Register Switch:	ON					
Unregister Switch:	ON					
Register Expire	90 (30~3600)					
Display Name	633					
Account Name	633					
Auth ID	633					
Password	633					
Register Server	192.168.0.128					
Register Port	5060					
Domain	192.168.0.128					
User Agent	koonloon					
sip Heart Beat	ON					
					6	(1~60)

Dialing Rules>>

4.2.3 Config

4.2.3.1 Speed dial

Type:Hot key

Value:numner

Line: SIP1/2/3/4

subtype:Speed Dial

You can set four groups in total, fill the information as below.

	Network	Phone	Speed Dialing	Security	Time	Language
Status						
Config						
Sip Config						
Maintenance						

Configure Speed Dialing:

Enable	Value	Line
<input type="checkbox"/> Number1	625	SIP1
<input type="checkbox"/> Number2	200	SIP1
<input checked="" type="checkbox"/> Number3	200	SIP1
<input checked="" type="checkbox"/> Number4	200	SIP1

Save

4.2.3.2 Network

You can set the connection type, auto-negotiation and network port.

Status

Config

Sip Config

Maintenance

Logout

Connection Type:

Static Ip

Static Netmask

Static Gateway

Primary DNS Server

Secondary DNS Server

auto-negotiation

Link 0 speed duplex

Link 1 speed duplex

Network Port

SIP Local Port

4.2.3.3 Phone

You can set auto-answer, hookOn wait time, ringer tone, volume settings and codecs settings.

Status

Config

Sip Config

Maintenance

Logout

Auto Answer

(1~30)

HookOn Wait Time

(1~30)

Set Ringer Tone

Ring Style Ring Volume (0~9)

Volume Settings

Mic Input Volume (1~9) Speak Output Volume (0~9)

Codecs Settings

Preference 1:

Preference 2:

Preference 3:

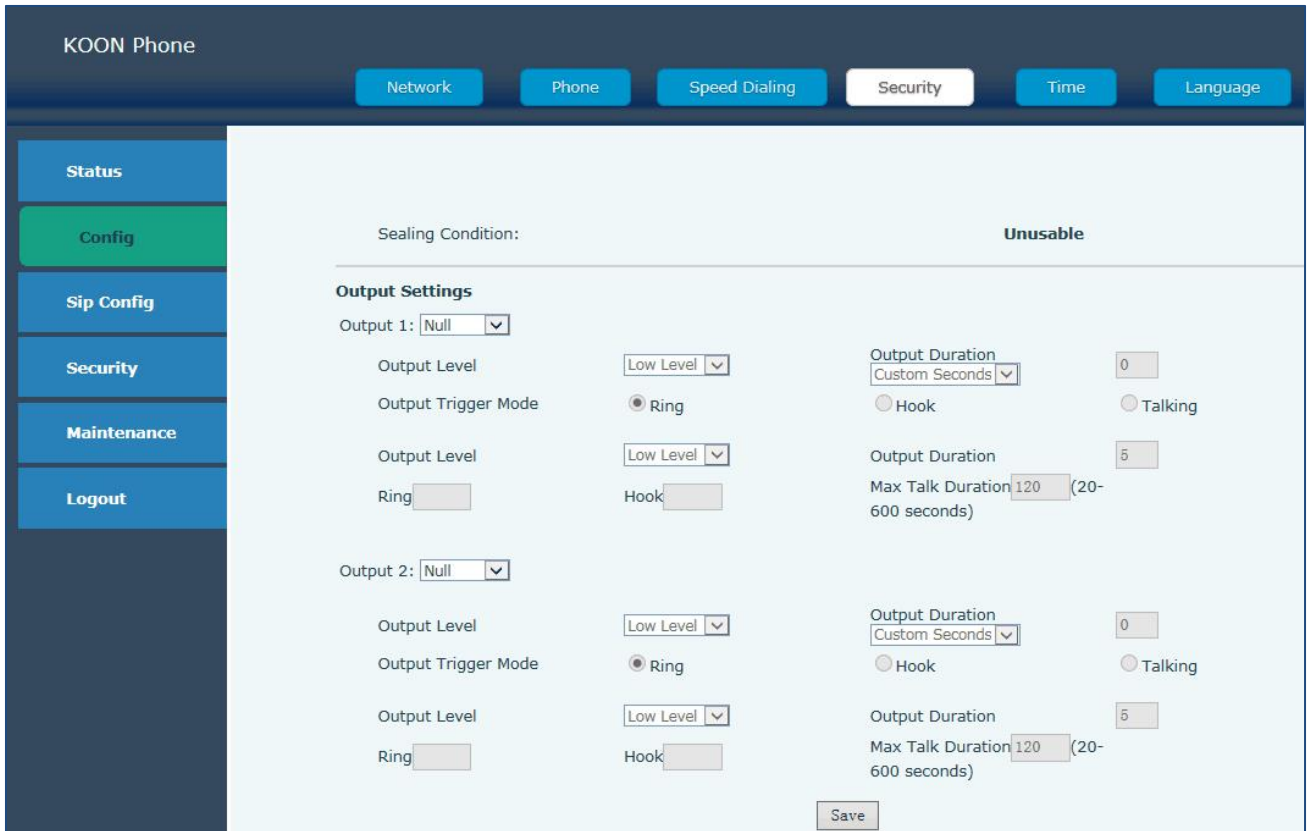
Preference 4:

Preference 5:

4.2.3.4 Security

Supports 2 output setting

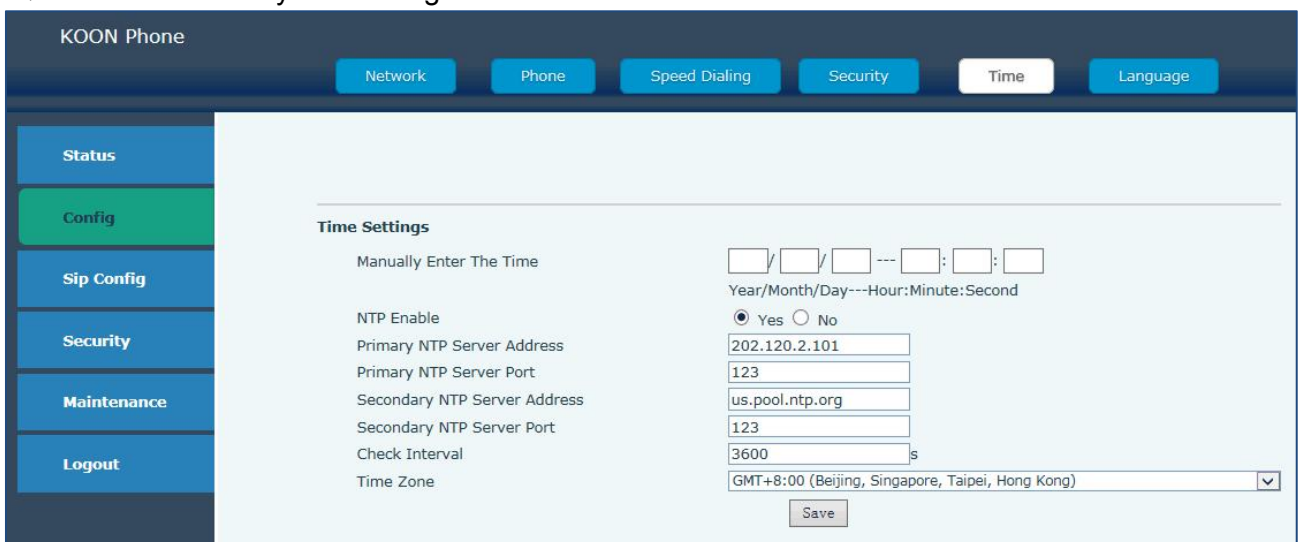
Supports modification on Output Level, Output Trigger Mode (Ring, on hook, talking, DTMF)



4.2.3.5 Time

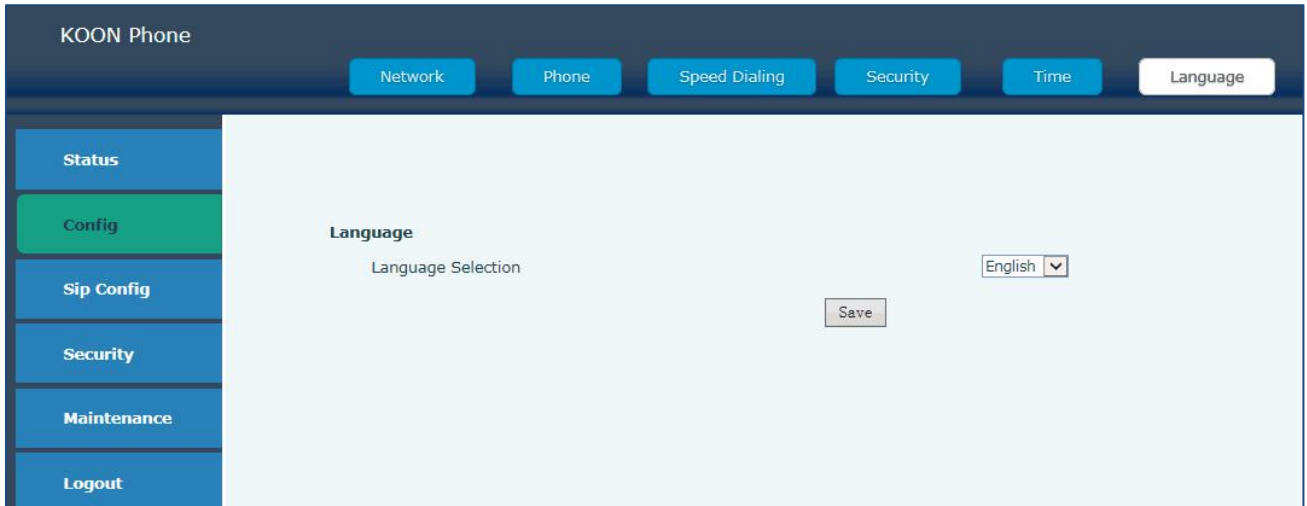
NTP Enable: Yes means synchronizing the time automatically via DHCP mode.

1. Configure primary NTP Server Address and server port
2. Configure secondary NTP Server Address and server port
3. Configure Time Zone
4. Interval time for synchronizing with server. Default is 60 seconds.



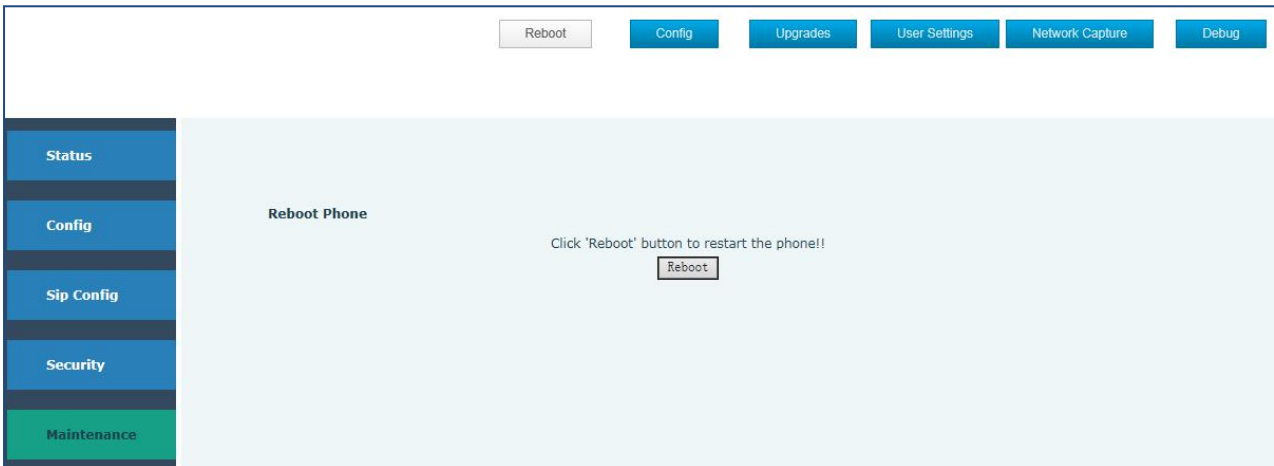
4.2.3.6 Language

Change the system language in Chinese or English



4.2.4 Maintenance

If the configuration finished, click “the reboot” on the phone to restart the phone.



4.2.5 Logout

Click the Log out button to leave the web operation

