

## Product Specifications

### High Definition Color PoE IP Phone with Dual Display

**VIP-2140PT**

Version 1.0

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Change History:

Revision	Date	Author	Change List
Version 1.0	10/11/2016	Jonas Yang	Initial release

Author	Jonas Yang	Editor:	Jonas Yang
Reviewed by:	Kent	Approved by:	Kent

## 1. PRODUCT DESCRIPTION

### **Intuitive Design Brings Quality Communication**

PLANET VIP-2140PT is a four-line SIP new enterprise phone with dual display that brings lifelike richness and voice quality to phone calls. The VIP-2140PT is a reliable communication device as it features ease of use, versatility, high-quality design and superb audio performance. Besides, its full duplex speakerphone system with HD voice can definitely make communication between two or more business parties crystal clear with no interference noise in the background as it supports the G.722 wideband codec.

### **Multi-language IP Phone with Color Display**

As the VIP-2140PT is a high-performance IP phone, it allows you to make calls from any location easily as long as it is online. Its 2.8-inch (main) and 2.4-inch (DSS) key-mapping LCD monitors with multi-language support in screen and web UI. It provides 30 configurable, 6 multicolored LED keys, and offers a clear depiction of caller's information. It complies with IEEE 802.3af/at PoE interface and dual 10/100/1000Mbps Ethernet for flexible deployment and supports superior audio quality delivered by the advanced speaker and microphone system, and the digital signal processor (DSP).

### **Compliant with SIP 2.0**

SIP phones continue to gain popularity among businesses as the preferred protocol for enhancing communication across IP networks. The VIP-2140PT supports Session Initiation Protocol 2.0 (RFC 3261) for easy integration with general voice over IP system. The VIP-2140PT is able to broadly interoperate with equipment provided by VoIP infrastructure providers, thus enabling them to provide their customers with better voice over IP services.

### **Affordable for All Businesses**

The VIP-2140PT is definitely affordable for all business establishments who want flexible deployment options and expansion. It can effortlessly deliver secure toll voice quality by utilizing cutting-edge 802.1p QoS (Quality of Service) and IP ToS technology.

### **Professional Application**

The VIP-2140PT supports Busy Lamp Field (BLF) function that, via the lights on the phone, enables users to easily identify the status of other phones which are connected to the same IP PBX, such as busy, idle, ringing, etc. The connected IP PBX must also support BLF feature. The BLF function is helpful for a receptionist on the front desk to route all incoming calls smoothly.

## 2. PRODUCT FEATURES

### ➤ **Highlights**

- 2.8-inch (main) and 2.4-inch (DSS) key-mapping LCD monitor
- 30 configurable, 6 multicolored LED keys
- IETE SIP compliant with 4 identities/accounts
- Wideband G.722 HD audio with Handset and Hands-free function
- Multi-language support in screen and web UI
- Gigabit switch and IEEE 802.3af/at PoE compliant
- VPN, VLAN QoS, TR069 and auto-provisioning

### ➤ **Advantageous Applications**

- Supports SIP 2.0 (RFC3261)
- Inband, SIP info, RFC 2833 DTMF relay
- Soft keys and function keys programmable
- Echo cancellation: Supports G.168, and a maximum filter length of 96ms in hands-free mode
- Supports voice gain setting, voice activity detection (VAD) and comfort noise generation (CNG)
- Full duplex hands-free speakerphone
- Hands-free headset ringing choice
- Voice codec setting for each SIP line

### ➤ **SIP Applications**

- Call forward and transfer (blind/attended)
- Call holding and waiting
- 3-way conferencing
- Paging and intercom
- Call park, call pickup and join call
- Redial and click to dial
- Secondary dialing automatically
- Incoming calls, outgoing calls and missing calls (Each supports 100 records)
- SMS and speed dial
- Phonebook up to 500 records

### ➤ **Call Control Features**

- Flexible dial map, hotline and empty calling no. for rejected service
- Black list for rejected authenticated calls
- White list and call limit
- Do not disturb (DND)

- Caller ID display
- Dial without registration

➤ **Network Features**

- PPPoE/DHCP client
- 802.1 VLAN (voice VLAN/data VLAN)
- VPN (L2TP) and openVPN
- Quality of Service

➤ **Maintenance and Management**

- Integrated web server provides web-based administration and configuration
- Telephone keypad configuration via display menu/navigation
- Automated provisioning and upgrade via HTTPS, HTTP, TFTP
- User authentication for configuration pages
- SNTP time synchronization
- TR069

### 3. SPECIFICATIONS

#### 3.1. Main Components

CPU/DSP	Broadcom
SDRAM	8M
Flash	16M

#### 3.2. Functional Specifications

<b>Product</b>	VIP-2140PT
<b>Hardware</b>	
<b>Lines (Direct Numbers)</b>	4 SIP Lines
<b>Display</b>	Main LCD x1: 2.8 inch (320x240) color-screen LCD DSS Key-mapping LCD x1:color-screen LCD
<b>Feature Keys</b>	Keypad: 38 keys, including <ul style="list-style-type: none"> <li>● 4 Soft-keys</li> <li>● 6 Function keys</li> <li>● 5 Navigation keys</li> <li>● 12 Standard Phone Digits keys</li> <li>● 3 Volume Control keys, Up/Down/Mute(Microphone)</li> <li>● 1 Hands-free key</li> <li>● 6 DSS Keys with tri-color LED</li> <li>● 1 Page-Jump/Configuration (PJC) key</li> </ul>
<b>Network Interfaces</b>	RJ45 Ethernet jacket x 2: <ul style="list-style-type: none"> <li>● Network x 1 (802.3af PoE Class 2 enabled)</li> <li>● PC x 1 (Bridged Network)</li> </ul>
<b>Connectors</b>	HD hands-free speaker (0 ~ 7KHz) x 1 HD hands-free microphone (0 ~ 7KHz) x 1 HD handset (RJ9) x 1
<b>Power Requirements</b>	IEEE 802.3af 5V 1000mA (Optional External Power Supply) Power Consumption: Idle ~ 1.7W, Peak ~ 5.7W
<b>Weight</b>	770g
<b>Dimensions (W x D x H)</b>	196 x 200 x 65 mm
<b>Protocols and Standard</b>	
<b>Protocols</b>	<ul style="list-style-type: none"> <li>● SIP2.0 over UDP/TCP/TLS</li> <li>● RTP/RTCP/SRTP</li> <li>● STUN</li> <li>● DHCP</li> <li>● PPPoE</li> <li>● 802.1x</li> <li>● L2TP (basic unencryption)</li> <li>● OpenVPN</li> <li>● SNTP</li> <li>● FTP/TFTP</li> <li>● HTTP/HTTPS</li> <li>● TR069</li> </ul>

<b>Request for Comments (RFCs)</b>	354, 1321, 1350, 1769, 1889, 1890, 2131, 2132, 2616, 2617, 2661, 2833, 2976, 3261, 3262, 3263, 3264, 3265, 3268, 3311, 3489, 3711, 4346, 4566, 5630, 5865
<b>Networking</b>	
<b>Networking</b>	<ul style="list-style-type: none"> <li>● Physical: 10/100/1000Mbps Ethernet, dual bridged port for PC bypass</li> <li>● IP Configuration: Static, DHCP, PPPoE</li> <li>● Network Access Control: 802.1x</li> <li>● VPN: L2TP (basic unencryption), OpenVPN</li> <li>● VLAN</li> <li>● QoS</li> </ul>
<b>Deployment &amp; Maintenance</b>	<ul style="list-style-type: none"> <li>● Auto-provisioning via FTP/TFTP/HTTP/HTTPS/DHCP/OPT66/SIP PNP/TR069</li> <li>● Web management portal</li> <li>● Web-based packet dump</li> <li>● Configuration Export, Import</li> <li>● Phonebook Import, Export</li> <li>● Firmware Upgrade</li> <li>● Syslog</li> </ul>
<b>Features</b>	
<b>Call Features</b>	<ul style="list-style-type: none"> <li>● Call out, answer, reject</li> <li>● Mute, Unmute (microphone)</li> <li>● Call Hold, Resume</li> <li>● Call Waiting</li> <li>● Intercom</li> <li>● Caller ID Display</li> <li>● Speed Dial</li> <li>● Anonymous Call (Hide Caller ID)</li> <li>● Call Forwarding (Always/Busy/No Answer)</li> <li>● Call Transfer (Attended/Unattended)</li> <li>● Call Parking, Pick-up (depending on server)</li> <li>● Redial/Auto-Redial</li> <li>● Do-Not-Disturb (per line, per phone)</li> <li>● Auto-Answering (per line)</li> <li>● Voice Message (on server)</li> <li>● Local 3-way Conference</li> <li>● Hot Line</li> <li>● Hot-Desking</li> </ul>
<b>Phone Features</b>	<ul style="list-style-type: none"> <li>● Intelligent phonebook (up to 500 entries in total)</li> <li>● Remote phonebook (XML/LDAP)</li> <li>● Call log (100 entries in total, in/out/missed)</li> <li>● Black/White List Call Filtering</li> <li>● Voice Message Waiting Indication (VMWI)</li> <li>● Programmable DSS/Soft keys</li> <li>● Network Time Synchronization</li> <li>● Action URL / Active URI</li> <li>● Multi-language support in screen and web UI: English, Chinese (Traditional/Simplified), Japanese, Russian, Italian, Turkish, German, Dutch, Spanish, Hebrew, Polish, French, etc.</li> </ul>
<b>Audio Features</b>	<ul style="list-style-type: none"> <li>● HD voice microphone/speaker (handset/hands-free, 0~7KHz frequency response)</li> <li>● Wideband ADC/DAC 16KHz sampling</li> <li>● Narrowband codec: G.711a/u, G.723.1, G.726-32K, G.729AB</li> <li>● Wideband codec: G.722</li> </ul>

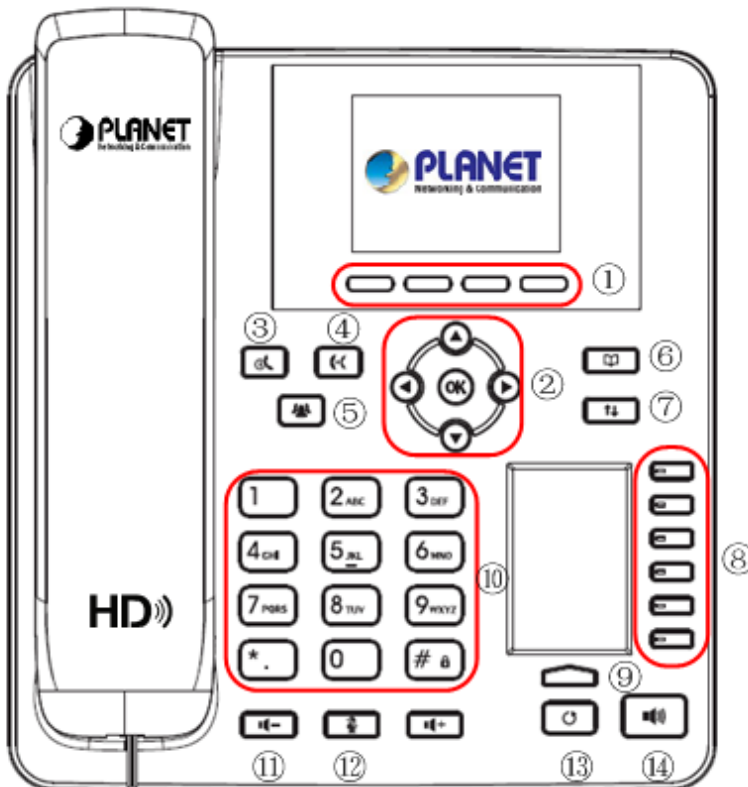
	<ul style="list-style-type: none"> <li>• Full-duplex acoustic echo canceller (AEC) – a tail length of 96ms in hands-free mode</li> <li>• Voice activity detection (VAD), comfort noise generation (CNG), background noise estimation (BNE), noise reduction (NR)</li> <li>• Packet loss concealment (PLC)</li> <li>• Dynamic adaptive jitter buffer up to 300ms</li> <li>• DTMF: In-band, out-of-band – DTMF-relay (RFC2833), SIP info</li> </ul>
<b>Environment</b>	
<b>Operating Temperature</b>	0 ~ 40 degrees C
<b>Operating Humidity</b>	10 ~ 65% (non-condensing)
<b>Emission</b>	CE, FCC, RoHS

### 3.3. Physical Specifications

#### ➤ **Dimensions**

<b>Dimensions (W x D x H)</b>	196 x 200 x 65 mm
<b>Net weight</b>	770g

#### ➤ **Keypad, LED and function key definitions**



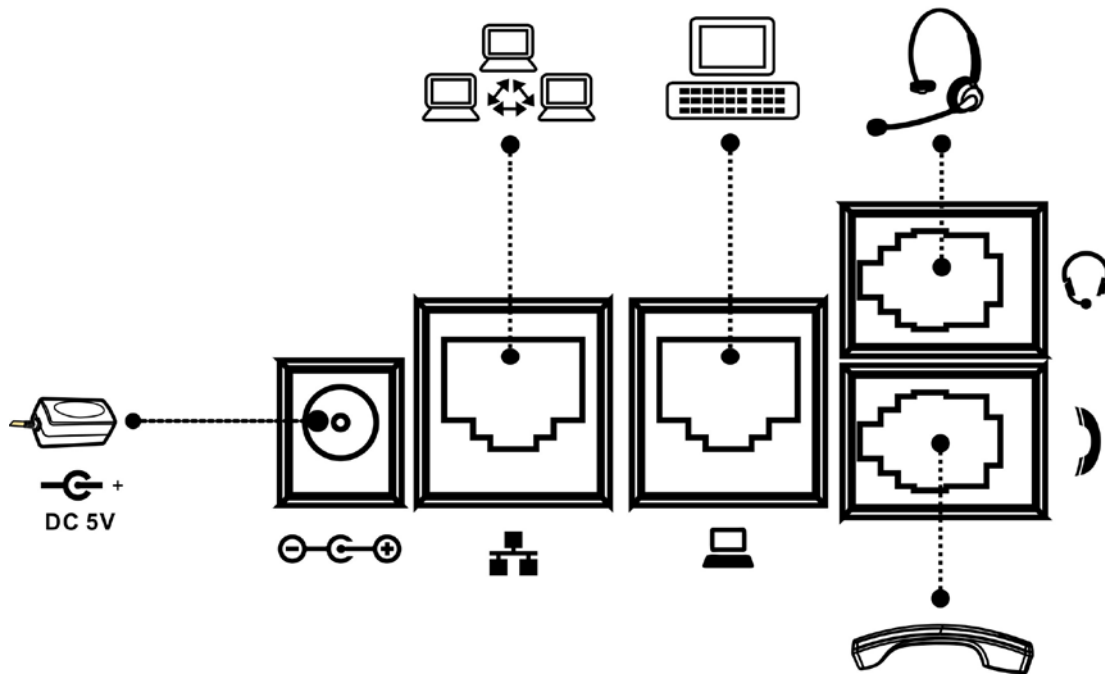
- ① Soft Key
- ② Navigation Key
- ③ Hold Key
- ④ Transfer Key
- ⑤ Conference Key
- ⑥ Phonebook Key
- ⑦ Call Log Key
- ⑧ DSS Key
- ⑨ DSS Page Key
- ⑩ Numeric Keypad
- ⑪ Volume +/- Key
- ⑫ Mute Key
- ⑬ Redial Key
- ⑭ Speaker Key

➤ **Keypad Descriptions**

Interface		Description
1	Soft-menu Buttons	These four buttons provide different functions corresponding to the soft-menu displayed on the screen.
2	Navigation Key	User can press the up/down navigation key to change line focus on the talking screen or move the cursor to a listed item on the screen. In some configuration or text editor screen, user can press the left/right navigation key to switch option or move cursor to the left/right.
3	Hold Key	To hold or to resume a call during a conversation
4	Transfer Key	To transfer a call to a third party
5	Conference Key	To place a conference call
6	Phonebook Key	By pressing the 'Phonebook' button, users can open phonebook as a shortcut.
7	Call Log Key	By pressing the 'Call logs' button, user can open call logs as a shortcut.
8	DSS Key	User can configure them on the web page (for example, Line Key, BLF, DND and MWI state).
9	DSS Page Key	By pressing this button once, user can switch to DSS LCD page one by one.
10	Numeric Keypad	The 12 standard telephone keys provide the same function as standard telephones, but some keys also provide special functions by long pressing the keys. -Key # - Long-pressed to lock the phone. (Default PIN is 123) -Key Pn - Long-pressed to open DSS LCD page configuration.
11	Volume +/- Key	User can press the +/- button to lower/increase the ringtone volume in standby mode; user can press the +/- button to lower/increase the audio volume in talking mode.
12	Microphone Mute	User can mute the microphone with this button in talking mode
13	Redial	By pressing the 'Redial' button, user can redial the last dialed number
14	Hands-free Speaker	By pressing this button once, user can turn on the audio channel of hands-free speaker



➤ **Rear View and Panel Descriptions**

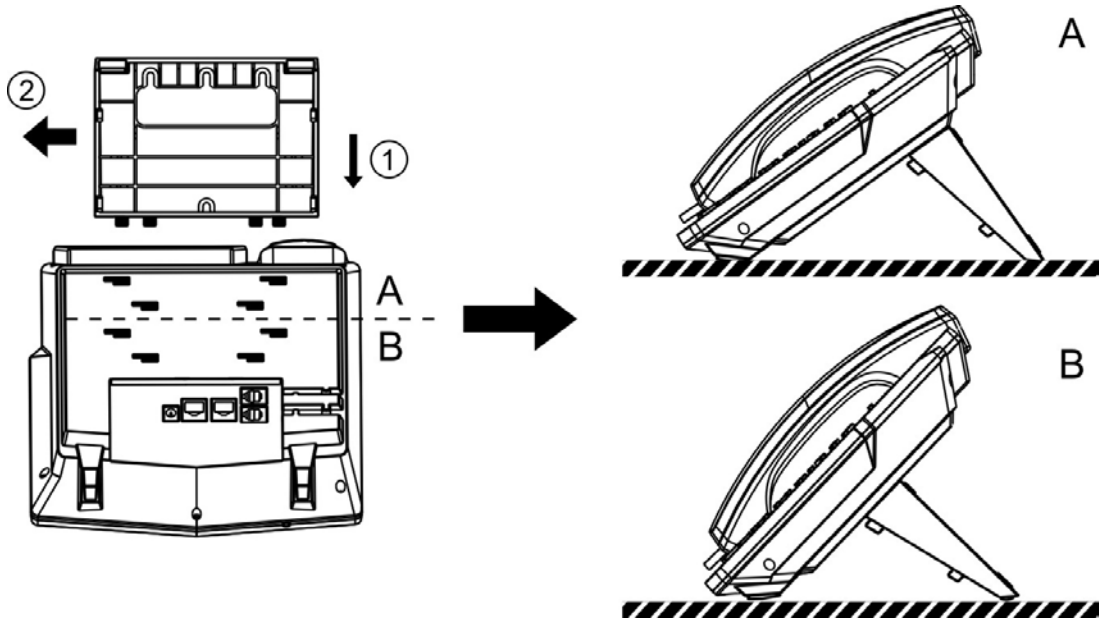


➤ **Interface Descriptions**

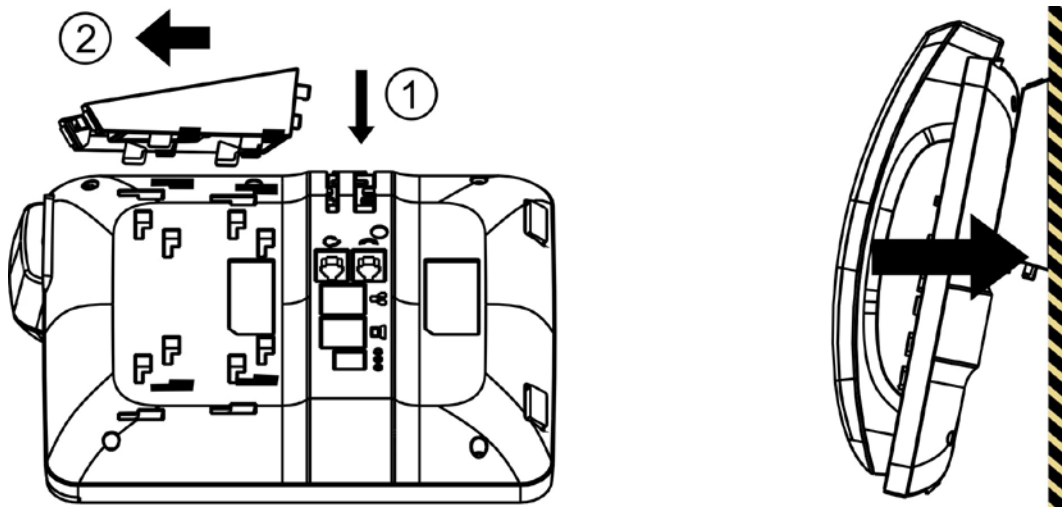
Interface		Description
1	<b>Headset</b>	Connected to the headset interface
2	<b>Headphone</b>	Connected to the headphone interface
3	<b>PC (LAN)</b>	Use a Cat5 cable to directly connect between the RJ45 connector and a PC to maintain the existing network structure.
4	<b>Internet (WAN)</b>	Use one end of a straight Cat5 cable to directly connect to a switch/hub and the other end to the RJ45 connector for internet access. The WAN interface also can be connected with 802.3af PoE switch or converter for power supply.
5	<b>DC 5V</b>	Power port (This unit does not include the 5V/1000mA power adapter.)

➤ **Desktop and Wall-mount Installation**

<b>Desktop Installation</b>	The device supports two installation modes, desktop and wall-mount. To set up the phone on the desktop, please follow the instructions as shown in the diagrams below.
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**Wall-mount Installation** To mount the device on the wall, please follow the instructions shown in the pictures below.



### 3.4. Environmental Specifications

#### Operating

Temperature:	0~40°C
Relative Humidity:	10~65% (non-condensing)

#### Storage

Temperature:	-25~85°C
Relative Humidity:	10~90% (non-condensing)

### 3.5. Electrical Specifications

<b>Input Voltage:</b>	5V DC, 1 A
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### 3.6. Regulatory Compliance

FCC, CE

### 3.7. Reliability

MTBF >87,600hrs @25 degrees C MIL-STD-781C

### 3.8. Basic Packaging

- SIP IP Phone Unit x 1
- Quick Installation Guide x 1
- RJ45 Cable x 1
- Stand x 1

### 3.9. Package Information

<b>Dimensions (W x D x H)</b>	270 x 270 x 65 mm
<b>Weight</b>	1030g (gross weight)
<b>Carton Dimensions (W x D x H)</b>	555 x 340 x 290 mm
<b>Carton Weight</b>	11kg (gross weight)
<b>Carton Unit</b>	10pcs

## ***APPENDIX A: Default Setting***

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<b>Default WAN IP</b>	172.16.0.1
<b>Default Subnet Mask</b>	255.255.0.0
<b>Default Gateway</b>	172.16.0.254
<b>Default Login User Name</b>	admin
<b>Default Login Password</b>	123
<b>LCD Advanced Settings Password</b>	123