

# IP PHONE WITH 4 LINES & HD VOICE & COLOR-SCREEN LCD & POE & DSS KEYS

- 4 SIP Lines
- 2.8 inch (320x240)
  color-screen LCD
- HD Voice
- 2xLAN, POE
- Handset(HS) / Hands-free(HF) / Headphone(HP) mode
- Desktop / Wall-mount installation

Karel IP204P is a high-end enterprise desktop phone which comes with an intelligent DSS Key-mapping LCD to increase enterprise users' productivity at a cost-effective price. Karel IP204P offers advanced functionality and easy user interface for making interaction easier and maximizing efficiency. Operating with Karel IP PBXs and other SIP compliant products, KAREL **IP204P** provides uninterrupted communication in anywhere with Internet connection with its aesthetic design, full-duplex hands free feature and its other differentiating features.

#### Generic

- 4 SIP Lines
- HD Voice

- POE Enabled
- 2 LCDs (Main + DSS)
- Handset(HS) / Hands-free(HF) / Headphone(HP) mode (EHS support for Plantronics headsets)
- Intelligent DSS Keys
- Desktop / Wall-mount installation
- Optional External Power Supply
- Economical and Environmental friendly package
- Industrial Standard Certifications: CE/FCC

# **Call Features**

- Call out / answer / reject
- Mute / Unmute (microphone)
- Call Hold / Resume
- Call Waiting
- Intercom
- Caller ID Display
- Speed Dial
- Anonymous Call (Hide Caller ID)
- Call Forwarding (Always/Busy/No Answer)
- Call Transfer (Attended/Unattended)
- Call Parking/Pick-up (depending on server)
- · Redial/Auto-Redial
- Do-Not-Disturb (per line / per phone)

- Auto-Answering (per line)
- Voice Message (on server)
- Local 3-way Conference
- · Hot Line, Hot-Desking

# **Phone Features**

- · Phonebook (500 entries)
- Remote Phonebook (XML/LDAP)
- Call log (100 entries, in/out/missed)
- Black/White List Call Filtering
- Voice Message Waiting Indication (VMWI)
- Programmable DSS/Soft keys
- Network Time Synchronization
- Action URL / Active URI

#### **Audio**

- HD Voice Microphone/Speaker (Handset/Hands-free, 0 ~ 7KHz Frequency Response)
- Wideband ADC/DAC 16KHz Sampling
- Narrowband CODEC: G.711a/u, G.723.1, G.726-32K, G.729AB
- Wideband CODEC: G.722
- Full-duplex Acoustic Echo Canceller (AEC) – Hands-free Mode,
   96ms tail-length

- Voice Activity Detection (VAD) / Comfort Noise Generation (CNG) / Background Noise Estimation (BNE) / Noise Reduction (NR)
- Packet Loss Concealment (PLC)
- Dynamic Adaptive Jitter Buffer up to 300ms
- DTMF: In-band, Out-of-Band –
  DTMF-Relay(RFC2833) / SIP INFO

#### **Networking**

- Physical: 10/100Mbps Ethernet, dual bridged port for PC bypass
- IP Configuration: Static / DHCP / PPPoF
- Network Access Control: 802.1x
- VPN: L2TP (Basic Unencrypted) / OpenVPN
- VLAN
- QoS

# **Protocols**

- SIP2.0 over UDP/TCP/TLS
- RTP/RTCP/SRTP
- STUN
- DHCP
- PPPoE
- 802.1x
- L2TP (Basic Unencrypted)
- OpenVPN
- SNTP
- FTP/TFTP
- HTTP/HTTPS
- TR069

### **Deployment & Maintenance**

- Auto-Provisioning via FTP / TFTP / HTTP / HTTPS / DHCP OPT66 / SIP PNP / TR069
- Web Management Portal
- Web-based Packet Dump
- Configuration Export / Import
- Phonebook Import/Export
- Firmware Upgrade
- Syslog

#### **Physical Specifications**

- Main LCD x1: 2.8 inch (320x240) colorscreen LCD
- DSS Key-mapping LCD x1:color-screen
- Keypad: 38 keys, including
  - 4 Soft-keys
- 6 Function keys
- 5 Navigation keys
- 12 Standard Phone Digits keys
- 3 Volume Control keys,
- Up/Down/Mute(Microphone)
- 1 Hands-free key
- 6 DSS Keys with tri-color LED
- 1 Page-Jump/Configuration (PJC) key
- HD Hands-free Speaker (0 ~ 7KHz) x1
- HD Hands-free Microphone (0 ~ 7KHz) x1
- HD Handset (RJ9) x1
- Standard RJ9 Handset Wire x1
- 1.5M CAT5 Ethernet Cable x1
- RJ9 Phone Jacket x2: Handset x1, Headphone x1
- RJ45 Ethernet Jacket x2: Network x1 (802.3AF POE Class 2 Enabled),
   PC x1 (Bridged to Network)

- Main Chipset: Broadcom
- DC Power Input: 5V/1A
- Power Consumption: Idle ~ 1.3W,
  Peak ~4.3W
- Working Temperature: 0° ~ 40°C
- Working Humidity: 10 ~ 65%
- Dual-Functional Back Rack x1:
  Desktop Stand / Wall-mount
- · Color: Black
- Package Dimensions: 285x270x65mm (W x H x L)



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