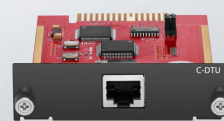
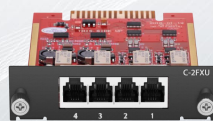
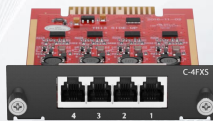
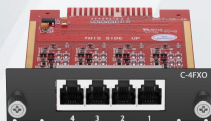
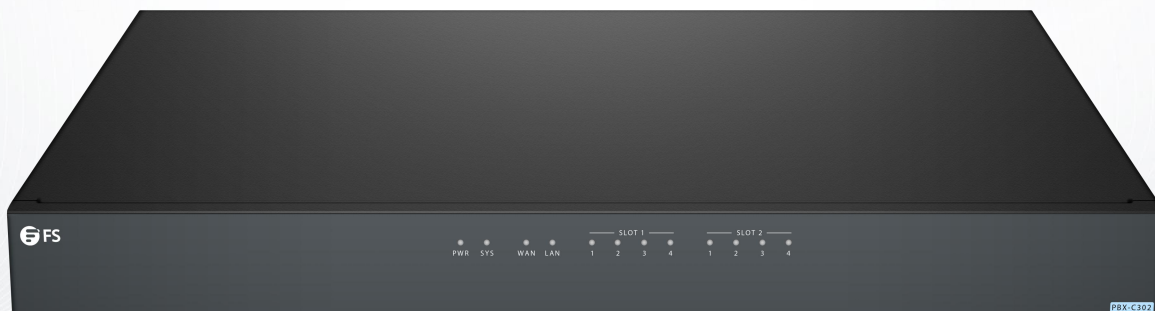


# IP PBX: PBX-C302

## Telephony Cards: C-4 FXS, C-4 FXO, C-2 FXU, C-DTU



## Overview

PBX-C302 provide a centralized solution for the communication needs of businesses.

It supports 200 extensions and 60 concurrent calls integrated voice, video, fax, conference, recording etc. It supports PSTN/GSM/WCDMA trunks, ISDNE1/T1 and BRI digital trunk lines. Through its innovative software features, it allows for enterprise-level unified VoIP communications.

It allows businesses to build powerful and scalable unified communication and collaboration solutions.

## Benefits

- 200 Extensions & 60 Concurrent Calls
- 150 Hours Call Recording & Voicemail
- Support Multi-level IVR
- Intrusion Auto-detection & Prevention for Security
- Support VPN, Static Routing, DHCP, DDNS, Virtual IP, VLAN etc.

## ADVANTAGES

### IP PBX-C302

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#### Quick Setup Wizard

Quick Setup Wizard allows speedy initial configuration of C-302 system. The wizard includes all essential configuration steps in an easy to use and intuitive web based interface.

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#### SIP Proxy Services

No fixed public IP, third-party DDNS services and VPN router required. It's easy to establish a Remote extension and remote branch office phone system integration.

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#### Endpoints Provisioning

Quick and simple deployment of endpoint devices using PNP and Quick Register Code.

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#### Billing

With built-in billing system, no third-party billing software required. Prepaid/post paid billing, billing credit, flexible billing rates and billing statistics features are all supported.

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#### Hot Standby

Two C302 servers run simultaneously, upon failure of one of the servers, the other server will take over all IP phone services. By using Hot Standby, it guarantees high availability of the enterprise phone services.

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#### Web Conference Manager

By using web conference manager, it will be much easier for you to start and manage a conference from the Web interface. Invite participants, mute/unmute participants, kick out participants can be done by a few mouse clicks.

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## CHARACTERISTICS

### IP PBX-C302

#### Hardware Specifications

#### Telephony Interfaces

8xFXO/FXS/GSM/WCDMA, 2xE1/T1, 4xBRI Interfaces

#### CPU

2.41GHz Dual-core Intel Processor

#### RAM

2GB DDR3L

#### USB (Extended Storage Supported)

2 (Supported File System: FAT16, FAT32, EXTFAT, NTFS, EXT3, EXT4)

#### Ethernet Interface

WAN, LAN (10/100/1000Mbps)

#### Power

AC100-240V, Max.1.5A

#### Dimension

440x222x44mm(19"1U industry standard rack-mountable chassis)

#### Software Specifications

200 Extensions

60 Concurrent Calls

60 Conference Attendees

150hrs Recording/Voicemail (Internal Storage)

#### System Capacity

1-12 EX16S Deployment (Recommended)

Unlimited IVR Levels

100 SIP/IMS Trunks (Max)

500000 CDR History

10000 Phonebook Contacts

50 Paging Members

## CHARACTERISTIC

### IP PBX-C302

#### Protocols & Codecs

|                            |  |
|----------------------------|--|
| <b>SIP (RFC3261), IAX2</b> | Support  |
| <b>DTMF</b>                | (RFC4733, SIPINFO, In-Band)  |
| <b>Transport Protocols</b> | UDP, TCP, TLS, SRTP  |
| <b>Network Protocols</b>   | IPv4, IPv6, VLAN, DHCP, PPPoE, NTP, SNTP, TFTP, SSH, HTTPS, LDAP       |
| <b>Video Codecs</b>        | VP8, H.264, H.263+, H.263, H.261                                       |
| <b>Audio Codecs</b>        | Opus, G.722, G.711(a-law,u-law), G.729, G.726, GSM, SPEEX, AMR, AMR-WB |
| <b>Telephony Features</b>  |  |
| <b>Call Queue</b>          | Support  |
| <b>Ring Group</b>          | Support  |
| <b>Call Forward</b>        | Support  |
| <b>Call Transfer</b>       | Support  |
| <b>Call Pickup</b>         | Support  |
| <b>Call Parking</b>        | Support  |
| <b>Call Waiting</b>        | Support  |
| <b>Speed Dial</b>          | Support  |
| <b>IVR (Multi-layer)</b>   | Support  |
| <b>Caller ID</b>           | Support  |
| <b>Call Spy</b>            | Support  |
| <b>Video Call</b>          | Support  |
| <b>3-way Conference</b>    | Support  |
| <b>Follow Me</b>           | Support  |
| <b>Call Back</b>           | Support  |
| <b>DISA</b>                | Support  |

## CHARACTERISTICS

### IP PBX-C302

|  |                          |
|--|--------------------------|
| <b>Smart DID</b>                       | Support                  |
| <b>Blacklist</b>                       | Support                  |
| <b>Voicemail</b>                       | Support                  |
| <b>Wakeup Call</b>                     | Support                  |
| <b>PIN Code</b>                        | Support                  |
| <b>Do Not Disturb</b>                  | Support                  |
| <b>Switch Call</b>                     | Support                  |
| <b>Time Conditions</b>                 | Support                  |
| <b>Paging &amp; Intercom</b>           | Support                  |
| <b>One Number Stations</b>             | Support                  |
| <b>Music on Ringback</b>               | Support                  |
| <b>Distinctive Ringtone</b>            | Support                  |
| <b>Auto Call Recording</b>             | Support                  |
| <b>One Touch Recording</b>             | Support                  |
| <b>Web Extension (WebRTC)</b>          | Support                  |
| <b>Feature Highlights</b>              |                          |
| <b>Quick Installation Guide</b>        | Support                  |
| <b>Softphone APP Auto Provisioning</b> | QR Code Scan             |
| <b>IP Phone Auto Provisioning</b>      | PNP, Quick Register Code |
| <b>LDAP Phonebook Auto Configure</b>   | (H81, H83)               |

## CHARACTERISTICS

### IP PBX-C302

|  |   |
|--|---|
| <b>EX16S Auto Provisioning</b>                   | Support                                       |
| <b>SIP Proxy</b>                                 | NAT Traversal                                 |
| <b>Voicemail to Email</b>                        | Support                                       |
| <b>Fax to Email</b>                              | Support                                       |
| <b>Multilingual Web UI</b>                       | Support                                       |
| <b>Multilingual Voice Prompts</b>                | Support                                       |
| <b>Multi-level User Administration</b>           |   |
| <b>Admin User</b>                                | All Privileges                                |
| <b>Operator User</b>                             | Extensions, faxes, CDR, recordings, etc.      |
| <b>Extension User</b>                            | WebRTC, recordings, voicemails, callogs, etc. |
| <b>Billing User</b>                              | Support                                       |
| <b>Conference Manager</b>                        | Support                                       |
| <b>Security</b>                                  |   |
| <b>Firewall Based on Iptable</b>                 | Support                                       |
| <b>Intrusion Auto Detection &amp; Prevention</b> | Support                                       |
| <b>Geo-IP</b>                                    | Support                                       |
| <b>IP Black / White List</b>                     | Support                                       |
| <b>Extension Permit IP</b>                       | Support                                       |
| <b>Network</b>                                   |   |
| <b>WAN</b>                                       | Static IP, DHCP, PPPoE                        |
| <b>VPN</b>                                       | PPTP, OpenVPN, IPSec, L2TP (Server & Client)  |
| <b>Static Routing</b>                            | Support                                       |
| <b>DHCP (Server &amp; Client)</b>                | Support                                       |
| <b>DDNS</b>                                      | Support                                       |
| <b>Virtual IP</b>                                | Support                                       |
| <b>Local Domain Name Service</b>                 | Support                                       |

| Telephony Cards                              | 4 FXO                            | 4 FXS                                   | 2 FXU                   | DTU                               |
|--|----------------------------------|---|-------------------------|-----------------------------------|
| <b>Ports</b>                                 | 4 FXO                            | 4 FXS                                   | 2 FXO + 2 FXS           | E1/T1                             |
| <b>Interface</b>                             | RJ11                             | RJ11                                    | RJ11                    | RJ48                              |
| <b>Connection</b>                            | Trunk Lines between PBX and PSTN | Analog Telephone & FXO Interface of PBX | Offices & Stations      | Network to Users                  |
| <b>Matching IP PBX</b>                       | IP PBX-C302                      | IP PBX-C302                             | IP PBX-C302             | IP PBX-C302                       |
| <b>Operation Temperature</b>                 | 0°C ~ 40°C                       | 0°C ~ 40°C                              | 0°C ~ 40°C              | 0°C ~ 40°C                        |
| <b>Humidity</b>                              | 5% ~ 95% Non-Condensing          | 5% ~ 95% Non-Condensing                 | 5% ~ 95% Non-Condensing | 5% ~ 95% Non-Condensing           |
| <b>Dimensions</b>                            | 88.5 x 132 mm                    | 88.5 x 132 mm                           | 88.5 x 132 mm           | 88.5 x 132 mm                     |
| <b>Ringing Detect</b>                        | On-hook                          | --                                      | On-hook                 | --                                |
| <b>Application Terms</b>                     | --                               | --                                      | --                      | T1 in US & Canada<br>E1 in Europe |
| <b>Loop Current Detect</b>                   | Off-hook                         | --                                      | Off-hook                | --                                |
| <b>DC Triggering</b>                         | Support                          | --                                      | Support                 | --                                |
| <b>Ring Generation &amp; Ringing Trip</b>    | --                               | Support                                 | Support                 | --                                |
| <b>Loop Closure Detect</b>                   | --                               | Support                                 | Support                 | --                                |
| <b>Loop Disconnect</b>                       | Support                          | Support                                 | Support                 | --                                |
| <b>Loop Reversal</b>                         | --                               | Support                                 | Support                 | --                                |
| <b>Loop Voltage &amp; Current Monitoring</b> | Support                          | Support                                 | Support                 | --                                |
| <b>On-hook &amp; Off-hook Transmission</b>   | Support                          | Support                                 | Support                 | --                                |
| <b>Hook-flash Detect</b>                     | --                               | Support                                 | Support                 | --                                |
| <b>DTMF Signalling</b>                       | --                               | Support                                 | Support                 | --                                |
| <b>Programmable Audio Gain</b>               | --                               | Support                                 | Support                 | --                                |
| <b>On-board Power Generation</b>             | --                               | Support                                 | Support                 | --                                |
| <b>Loop Current</b>                          | 13-110mA                         | 20mA Constant                           | 20mA Constant           | --                                |

## LED Indicates Port Status

**4 FXO**

Solid Red= Module loading successful  
 Blink Red= Channel Ringing  
 LED off= module loading failed

**4 FXS**

Solid Red= Module loading successful  
 Blink Red= Channel Ringing  
 LED off= module loading failed

**2 FXU (2 FXO+2 FXS)**

FXS Green LED:  
 Solid Green= Module loading successful  
 Blink Green= Ringing  
 FXO Red LED:  
 Solid Red= Module loading successful  
 Blink Red= Ringing  
 LED off= module loading failure

**DTU (E1/ T1)**

LED 1:  
 Solid Red= Module loading succeeded  
 Off= Module loading failed  
 LED 2 & LED 3:  
 L2 Solid Red/ L3 Off =CPE signaling  
 L2 Solid Green/ L3 off= NET signaling  
 L3 Solid Red/ L2 Off= Mfcr2 signal  
 L3 Solid Green/ L2 Off= SS7 signaling  
 Off= No signal  
 LED 4:  
 Red= Disconnected/ Alarm  
 Green= Connected/ No alarm



## Pin Assignments

### 4 FXO

Pin 1: Not Used  
 Pin 2: Tip  
 Pin 3: Ring  
 LED 4: Not Used

### 4 FXS

Pin 1: Not Used  
 Pin 2: Tip  
 Pin 3: Ring  
 LED 4: Not Used

### 2 FXU (2 FXO+2 FXS)

Pin 1: Not Used  
 Pin 2: Tip  
 Pin 3: Ring  
 LED 4: Not Used

### DTU (PRI: E1/T1)

The T1 line consists of 24 channels, while an E1 has 32.

PRI provides a varying number of channels depending on the standards in the country of implementation.

In North America and Japan it consists of 23xB (B channels/be/s). In Europe and Australia it is 30xB + 1xD on an E1 2.048 Mbit/s. One timeslot on the E1 is used for synchronization purposes and is not considered to be a B or D channel.

Primary Rate Interface for large organizations with 30 bearer channels and 2xD (D channel(delta channel)) (23 64-kbit/s digital channels + 1 64-kbit/s signaling/control channel) on a T1 (1.544 Mbit (PRI)), for larger applications. Both rates include a number of B-channels and a D-channel. Each B- channel carries data, voice, and other services. The D-channel carries control and signaling information.



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