



# UC2500 Unified Gateway

## Overview

Dinstar Unified Gateway UC2500 is a core voice gateway of your unified communications (UC) solution. Based on X86 platform, it allows users to install third-party PBX software with simple installation. Equipped with modular & hot swappable interface boards of FXS / FXO / E1 / T1 / LTE / GSM and an open API, users can flexibly connect with SIP trunks, PSTN, legacy PBX, analog phones, fax machines and IP phones according to their needs.

UC2500 is a high reliability gateway with redundant main control units (MCU), hot swappable interface boards and redundant power supplies. For vertical users who are seeking to make use of their own secure PBX software and to leverage unified communications to enhance communication and improve efficiency, while high reliability and availability is also critical, UC2500 is an ideal choice.

## UC2500



## Key Features

- Key Component of IP Telephony & Unified Communications
- Open Hardware Platform based-on X86
- Easy to install 3<sup>rd</sup> party IP PBX such as Asterisk, Freeswitch, 3CX, Issabel, VitalPBX software
- Open API
- Perfect for Vertical markets
- Voice, Fax, Modem & POS
- Up to 10 interface boards, Hot swappable
- Up to 16 E1/T1 ports
- Up to 80 FXS/FXO ports
- Up to 40 GSM/LTE ports
- Redundant Power Supplies

## Hardware Specification

MCU: 2\* Main Control Unit, active/standby  
HDX: 2\* Ext. Hard Disk Unit, active/standby  
SCU: 2\* Switch Control Unit, active/standby  
DTU: 4\* E1/T1 ports, up to 8 boards  
FXS: 8\* FXS ports, up to 10 boards  
FXO: 8\* FXO ports, up to 10 boards  
4S4O: 4\*FXS+4\*FXO, up to 10 boards  
GSM/LTE: 4\* GSM/LTE, up to 8 boards  
PWR: 2\* 110~220VAC power modular  
FAN: 2\* FAN cooling modular

## MCU(Main Control Unit)

X86 structure control unit with two hardware configuration options:

1) Standard:

CPU: Intel J1900 2.0GHz, 4 cores  
Intel E3845 1.9GHz, 4 cores

RAM: DDR3L 1600MHz 8GB

2) Advanced:

CPU: Intel i5-6300U 2.4GHz, dual cores  
RAM: DDR4 2133MHz 32GB

Network: 10/100/1000Mbps Gigabit LAN

1\* HDMI video connector

1\* USB 2.0

1\* USB 3.0

128GB SSD hard disk, extendable by HDX

## HDX( Ext. Hard Disk Unit) :

Extend hard disk storage of MCU board

1\* SSD/HDD hard disk space

1\* VGA video connector

4\* USB 2.0

Mic and Speaker

## SCU(Switch Control Unit)

CPU: 1.8GHz, 8 cores

RAM: DDR3 512MB

Flash: 32MB

EMMC: 8GB

Network: 2\* 10/100/1000Mbps

Console: 1\* 115200bps, RJ45

USB 2.0: 1

## Media Processing

Codecs: G.711A/U,G.723.1, G.729AB,  
iLBC, AMR

Silence Suppression

Comfort Noise Generator(CNG)

Voice Activity Detection(VAD)

Echo Cancellation

Dynamic Jitter Buffer

Programable Gain Value

T.38 and Pass-through FAX

Modem and POS terminal

DTMF: RFC2833/SIP Info/Inband

VLAN 802.1p/q

Layer3 QoS and DiffServ

## FXS

Connector: RJ11

Caller ID: Bellcore Type 1&2,

ETSI,BT,NTT and DTMF

Answer and Disconnect Signaling:

Answer, Disconnect, Busy Tone

Polarity Reversal

Hook Flash

## FXO

Connector: RJ11

Caller ID: FSK, DTMF

Polarity Reversal

Answer Delay

Busy Tone Detection

No Current Detection

## FXS/FXO Features

Port Group/Hunting Group

Digitmap

Flexible Call Routing Rules

Caller/Called Number Manipulation

Rules

## VoIP Protocol

SIP v2.0 (UDP/TCP),RFC3261

SDP,RTP(RFC2833), RFC3262,

3263,3264,3265,3515,2976,3311

RTP/RTCP, RFC2198, 1889

SIP-T,RFC3372, RFC3204, RFC3398

RFC4028 Session Timer

SIP TLS

RFC2806 TEL URI

RFC3581 NAT, rport

NAT Traversal: dynamic NAT, STUN

## DTU

Connector: RJ48C

4\* Port E1/T1 per board

Support ISDN PRI and SS7 signaling

ISDN PRI:

23B+D(T1), 30B+D(E1), ITU-T Q.921,

ITU-T Q.931, Q.Sig

SS7:

ITU-T, ANSI, ITU-CHINA,

MTP1/MTP2/MTP33, TUP/ISUP

E1 Frame : DF, CRC4, CRC\_ITU

T1 Frame: 4-Frame Multi-

frame (F4,FT),2-Frame Multi-

frame (F12, D3/4),Extended Super-

frame (F24, ESF) ,Remote Switch Mode

(F72, SLC96)

Local/Remote Clock Source

## Network

Static IP

IPv4, IPv6, TCP/UDP,TFTP, FTP,

ARP, RARP,ICMP,NTP, SNTP,

DNS,Tracert

HTTP,HTTPS

VLAN(TBD)

## GSM/LTE

4\* GSM/LTE channels per board

Antenna Connector: SMA

SMS/USSD/PIN

Provides GSM and LTE boards depends on network frequency of users:

GSM: 850/900/1800/1900MHz

LTE frequency band options:

### Type A:

FDD: B2/B4/B12 WCDMA: B2/B4/B5

### Type E:

FDD: B1/B3/B5/B7/B8/B20

TDD: B38/B40/B41

WCDMA: B1/B5/B8

GSM: 900/1800MHz

Type V: FDD: B4/B13

### Type J:

FDD: B1/B3/B8/B18/B19/B26

TDD: B41 WCDMA: B1/B6/B8/B19

### Type AU:

FDD: B1/B2/B3/B4/B5/B7/B8/B28

TDD: B40 WCDMA: B1/B2/B5/B8

GSM: 850/900/1800/1900

## Capabilities:

Extensions: 5000

Concurrent Calls: 100~300

Register Per Second: 200/s

Call Per Second: 100/s

## DTU Features

Local/Remote Ringback tone

Overlap Dialing

Dial plan up to 2000

E1 Group/ Timeslot Group

SIP Trunk/SIP Trunk Group

Codecs Group

Caller/Called Blacklist

Caller/Called Whitelist

Access Rule List

## Maintenance

Web GUI configuration and maintenance

Configuration backup and restore

PSTN call and release cause statistics

SIP call and release cause statistics

HTTP firmware upgrade

Network capture

Syslog: Debug, Info, Error, Warning,

Notice

Call history record

NTP

## Call Feature

Flexible Route Methods

PSTN-PSTN, PSTN-IP, IP-PSTN

Intelligent Routing Rules

Call Routing base on Time

Call Routing base on Caller/Called

Prefixes

256 Route Rules for each Direction

Caller and Called Number Manipulation

## Environmental

1+1 Power Supply, hot plug

Input: 100-240VAC, 50-60 Hz

Power Consumption: 200W

Operating Temperature: 0 °C ~ 45 °C

Storage Temperature: -20 °C ~ 80 °C

Humidity: 10%-90% Non-Condensing

Dimensions(W/D/H): 437\*345\*132mm

Unit Weight: 16kg

Compliance: CE, FCC

### Shenzhen Dinstar Co.,Ltd.

Floor 18, Building 7A, Vanke Cloud City Phase 1, Xingke 1st Street, Xili Sub-district, Nanshan District, Shenzhen, P.R. China 518000

www.dinstar.com  
sales@dinstar.com



### About Us

Shenzhen Dinstar Co.,Ltd. was founded in 2011, focusing on developing, manufacturing, and marketing of Next Generation Communication and Networking products, with headquarter in Shenzhen, China and branches in Beijing, Hangzhou, Hong Kong. Now we have more than 180 specialists, most of them coming from top-rank global telecommunication enterprises, who have dedicated themselves to VoIP, unified communication and wireless mobile network etc. for more than 18 years.