

# iAN-08E Series IAD

## VOIP (SIP/MGCP) GATEWAY

A 16/24/32-PORT VoIP GATEWAY/IAD DESIGNED FOR ENTERPRISE, SMALL/CENTRAL OFFICE AND RESIDENTIAL APPLICATIONS, ENABLING VoIP OVER AN EXISTING BROADBAND CONNECTION



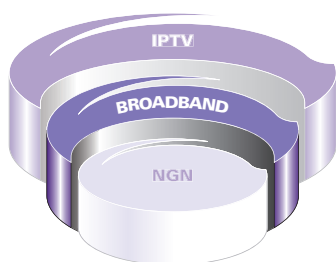
### KEY FEATURES

#### Voice Features

- Supplementary features:
- Call hold
- Call waiting
- Call Transfer
- 3 way call conference
- Call forward (always, busy, no answer)
- Speed Dial
- Polarity reversal
- Distinctive rings
- Fax
- Caller ID
- Caller ID blocking (via RFC 3323 and 3325)
- Voice-mail notification
- Internal phone book and Digitmap
- Configurable hook-flash timing.

#### Data Features

- Advanced Routing
- Gateway/Bridge mode features
- PPPoE Features
- Static or Dynamic using DHCP client
- Configurable DHCP Free IP range for LAN interface
- Dynamic DNS, NAT and STUN.



### Management and Provisioning:

- Remote software upgrade and configuration upload/download via TFTP
- Telnet/Craft CLI
- EMS (Element Management System) based on SNMP trap
- Username and Password Authentication
- Advanced MGCP/SIP Authentication
- Debug capability.

### INTERFACES

#### Customer Side

16 Ports Option #1 (iAN-08E16)

- 16 Ports FXS (or 8 Ports FXS + 8 Ports FXO)
  - 1 x 50-pin female RJ21 connector for 16 Ports
- 32 Ports Option #2 (iAN-08E32)
- 16/24/32 FXS Ports with equivalent 16/8/0

#### FXO Ports

- Uses 8 Ports FXS/FXO analogue interface adapter
- Total of 4 adapters allowed per chassis, up to 32 Ports capabilities
- 2 x 50-pin female RJ21 connectors for 32 Ports

#### Network Side

- 1 RJ45 WAN Port (10/100Base-T Ethernet, IEEE 802.3)
- 1 Single Mode Fiber Optic Fast Ethernet (optional)
- 1 RJ-45 LAN port (10/100Base-T Ethernet, IEEE 802.3)

#### Console Port

- RS-232 DB-9F

#### Indicator Lights (LEDS)

- Power, System, 10/100M Up-Link (WAN), 10/100M LAN link and 16/32 x Telephone port status.

### SPECIFICATION AND APPLICATIONS

#### Data Networking

- MAC Address (IEEE 802.3)
- IPv4 (RFC 791)
- ARP Address Resolution Protocol
- DHCP client (RFC 2131)
- ICMP-Internet Control Message Protocol (RFC 792)
- TCP Transmission Control Protocol (RFC 793)

- UDP User Datagram Protocol (RFC 768)
- RTP RealTime Protocol (RFC 1889/1890)
- PPPoE (RFC 2516)
- Type of Service, TOS (RFC 2030)
- MD5 Password Encryption (RFC 1321)
- Encryption of Configuration file
- Internet multicast backbone (RFC 2327)

## Call Control/VoIP Features

- IETF MGCP (Media Gateway Control Protocol, RFC 2705) and Packet Cable NCS compliant
- SIP (RFC 3261, 3262, 3264)
- Voice Packet Encapsulation and Description Protocols RTP (RFC 1889) and SDP (RFC 2327)
- DTMF in band & Out-of-band (RFC 2833) (SIP INFO)
- DDNS (Secure and innovative dynamic DNS service)
- Subscriber/Notify method (RFC 3265)
- Voice Activity Detection (VAD) and Comfort Noise Generation (CNG)
- Silence Suppression
- Adaptive Jitter Buffer
- Compensation for Loss of Packet
- In-band or Out-band DTMF Relay
- Selectable TX/RX Gain Controls
- Echo cancellation G.165/G.168
- Attenuation and Gain Adjustment.
- Tone Generation (GR-506) and Custom definable
- Caller ID (Bell Core-GR30, FSK, ETSI)

## Voice Algorithms

G711 A-Law / U-Law (64Kbps), G723.1 (6.3K/5.3Kbps), G726 (16K/24K/32K/40Kbps), G729AB (8Kbps), GSM (13Kbps).

## Fax Mode

- Transparent FAX Mode (G3, T.30)
- Fax Auto-detection
- FAX Relay Mode: ITU-TT.38 RealTime G3 FAX over IP protocol
- Supporting ITU-TV.21, V.27ter, V.29 and V.17 up to 14,400bps

## Quality of Service (QoS)

- Type-of-service (ToS) Bit-tagging
- VLAN Tagging,
- Internal queues/buffer management for voice prioritization

## Power Supply

- AC Model: 85~260 VAC, 50~60 Hz
- DC Model: -36 ~ -72 VDC
- Power consumption: MAX. 80 Watts

## SLIC Specification

- Interface type: FXS loop start – 2 Wire Analog Telephone or G3 Fax line
- Interface type: FXO loop start – 2 Wire Analog Line
- Transmission performance EIA/TIA-464-B
- 2-Wire input impedance 600 Ohms
- Ports designed for Long haul (up to 3,000m of 24 AWG line per ports)
- DC feed 25mA Waiting Current
- Ringer Output Voltage >40Vrms, 5 REN (Each port)
- Line Current detection 100mA
- Signaling format: DTMF/Pulse
- Signaling: Polarity Reversal
- 2-Wire Return loss >20db from 200Hz to 3.4KHz
- Gain A/D or D/A: -3+/- 0.2db at 1 KHz
- Per port surge protection circuit

## Unit Dimensions

- 437mm (W) x 44mm (H) x 286mm (D)
- 1U standard 19" Rack Mountable

## Weight

- iAN-08E16 11.5 lbs (Approx.)
- iAN-08E32 12 lbs (Approx.)

## ENVIRONMENTAL

- Operating: 0~50°C, 10~90% humidity
- Storage: -10~70°C, 5~95% humidity

## REGULATORY COMPLIANCE

- EMI: EN 50081-2, FCC Part 15 Class A
- Safety: EN 60950, FCC Part 68, UL/CSA

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**UTStarcom, Inc. USA**  
1275 Harbor Bay Parkway  
Alameda, CA 94502 USA  
Tel: 510-864-8800  
Fax: 510-864-8802

[www.utstar.com](http://www.utstar.com)

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