



## AbovEdge MA series Intelligent VoIP Gateway

The **AbovEdge** family is a series high performance Voice over IP (VoIP) gateways. The built-in IVR function and intelligent routing capabilities makes it an ideal product for businesses to implement cost saving IP telephony without changing their dialing habits. The AbovEdge series supporting standard VoIP protocol can be easily merged into an existing VoIP domain as an origination and/or termination node(s). The compact rack-mountable unit of AbovEdge provides versatile VoIP functions with the most competitive price. Its advanced processor and in-house developed technology eases the process of adding intelligent functionality and makes it a perfect solution to fulfill leading telecommunications and business requirements.

When connected to TeleSynergy's IP PBX (TelePCX), AbovEdge-MA can be implemented remotely to physically extend the TelePCX to a remote site. Acting as remote extensions, all the extensions under AbovEdge share the same functions and features with local extensions connected to the TelePCX server in the main office.

### FEATURES

- ▶ Conforms to IETF latest SIP protocol RFC-3261
- ▶ Peer-to-peer or routing through a proxy server
- ▶ DTMF dialing, Support Out-Band DTMF delivery
- ▶ Jitter buffer to improve voice quality
- ▶ Maximum length of extension line connect to FXS = 1 km
- ▶ Caller ID receiving/generating function
- ▶ Polarity Reverse signal detection on FXO port
- ▶ Polarity Reverse signal insertion on FXS port
- ▶ Call progress detection (dial tone, busy tone, ringback tone)
- ▶ Remote system maintenance and upgrade
- ▶ Intelligent Routing Management
  - Backup route
  - Routing by time section
  - Routing by Answer Success Ratio (ASR) condition
  - Routing as trunk group distribution
- ▶ Call Incoming Management
  - Hotline mode
  - DID mode
  - DNI/ANI re-dialing by dial tone or IVR
  - Built-in IVR for Calling Card System or alike application
- ▶ System call back
- ▶ CDR exporting, support Syslog CDR
- ▶ Support TeleSynergy Billing solution
- ▶ Support TeleSynergy Web Server Management system
- ▶ On line configuration management, status monitoring and fault management

### SPECIFICATIONS

- ▶ Call Control: SIP
- ▶ Voice Codec : G.711, G.729A, G.723.1
- ▶ Silence Suppression: G.729B for G.729A, G.723.1a for G.723.1
- ▶ Echo cancellation: G.165 / G.168
- ▶ Gain Control :  $\pm 31$ db
- ▶ Media stream : RTP / RTCP with jitter buffering
- ▶ DTMF dialing/receiving; Pause time selection, support SIP Out-Band
- ▶ Analog Trunk Interface:
  - Loop start
  - Loop current: 20 - 80 mA polarity insensitive
  - Loop voltage polarity reverse detection
  - Interface impedance : 600 ohms
  - Frequency response: 200 -- 3400 Hz
  - Ring detection: 30Vrms -- 140Vrms (16 -- 68 Hz)
  - Pulse dialing: 10/20 PPS, M/B ratio 33/66, 40/60 selectable
  - Caller ID receiving: Bellcore GR-30-CORE & DTMF
  - Ring detection; Loop current detection; Onhook / offhook control
- ▶ Extension Interface:
  - Loop start
  - Loop Range : 0~200 ohms
  - DC Supply: 55V (standby)
  - Loop current: 20 mA
  - Interface impedance : 600 ohms
  - Frequency response: 200 -- 3400 Hz
  - Ringing: 40Vrms (20 Hz)
  - Modular phone jacks with 2 RJ-45 outlets
  - Caller ID generating: Bellcore GR-30-CORE
  - Message light: Bellcore FSD 01-02-2000
  - Pickup/Hangup/Flash detection; Flash duration selection
- ▶ SIP Protocol : RFC-3261 SIP / RFC-2833 out-band DTMF / RFC-2327 SDP / RFC-3264 offer / answer model
- ▶ Management : Web / SNMP / Telnet / Console
- ▶ Connector:
  - Analog POTS line : RJ-45
  - WAN: RJ-45
- ▶ Input Voltage, Frequency: AC 90V~240V, 50~60 Hz
- ▶ power consumption: 70W(max.)
- ▶ Input Inrush Current 30A at 115Vac, 60A at 230Vac (max.)
- ▶ Dimension: 440mm x 44mm x 173mm, 1U
- ▶ Operating Temperature: 0°C to 45°C
- ▶ Storage Temperature: -10°C to 70°C
- ▶ Ordering Information:
  - MA-0408: 4 FXO / 8 FXS / 8 VoIP
  - MA-0204: 2 FXO / 4 FXS / 4 VoIP