



# Essence Integrated Gateway

Essence Integrated Gateway is one product of VoIP series by Essence Technology. EIG is a perfect product for the telecom carriers to provide the residential telephony and fax services through the broadband networks such as FTTB, HFC, and ADSL. EIG can be connected to the traditional PBXs to provide the voice solutions for enterprises, government, and schools. EIG can also serve as a remote SIP terminal for IP-PBX solutions.

EIG has four standard configurations: 4FXS ports, 8FXS ports, 4FXO ports, and 4FXS/FXO ports. EIG shares the same software design as other Essence's carrier class VoIP gateway products EAG-AG and EAG-TG. EIG offers rich features, high quality voice, high compatibilities, and many other advantages. EIG hardware uses the MPC852 from Motorola as its central processor and high performance C5509 DSP from Texas Instruments for voice and fax processing. EIG powerful hardware platform provides sufficient power for IP packetization, voice compression and echo cancellation (G.168) even when the voice traffic is at the peak.

## Intelligent and rich in features

EIG is based on the embedded Linux operating system. With its powerful hardware platform and flexible software design, EIG can meet various voice application requirements. EIG supports a variety of supplementary services which include Caller ID, Call Forward, Forward No Answer, Forward Busy Line, Call Waiting, and fashion ring-back, as well as many distinguishing features which include Routing Selection, RADIUS Billing Interface, Two Stage Dialing, Calling/Called Number Mapping, and Auto Dial.

## Easy to operate and maintain

EIG supports both web-based and text-based configuration setup. Users can remotely upgrade the EIG software, change the configuration parameters, download log files, and collect gateway performance data by using the Essence's Element Management System (EMS).

## High Interoperability

EIG has passed the interoperability tests with many soft switch and gateway suppliers worldwide.

## Investment Protection

One main challenge of purchasing new IP-based voice equipments is how to protect your investment. EIG not only offers the best cost-effectiveness but also supports the latest VoIP technologies and standards. Users can take advantage of the newest VoIP technologies by upgrading EIG software.



The ideal gateway for IP-PBX and residential VoIP Application

High voice quality

Highly compact yet truly reliable

User-friendly provision tools

Featuring fashion ringing tones, auto dialing, dual phone numbers, RADIUS billing interface, and etc Advanced VoIP technologies including SIP/MGCP protocols, iLBC, and voice encryption  
In-house R&D



## Enabling Excellence Efficiency

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### Key Features

Voice Processing	Voice codec : G.711 G.729A G.723.1 GSM iLBC Echo Cancellation : G.168 , Tail Length : 8/16/32ms Dynamic Jitter buffer , Voice Activity Detector(VAD);Comfort Noise Generator (CNG)
Calling Control	Called/calling number Mapping; Line Hunting
Fax Processing	T.30 , T.38 Fax Relay
Gateway Configuration	Web Based User Interface; Polarity Reverse
Remote Provisioning	HTTP / WEB Mode , Remote Configuration , Remote Software Update , Performance Data
Configuration	4 or 8 FXS analog ports , 4 FXO analog ports , mixed 4 FXS / 4 FXO analog ports

### Signaling

Off Hook Detection	FXS Loop Start , DDI ( Hong Kong )
VoIP protocol	SIP (RFC3261) , MGCP (RFC2705) , 3GPP TS 24.228 , TS 24.229
Network protocol	PPPoE , DHCP , DNS , NAT/STUN , 802.1p , TFTP , Telnet
DTMF	DTMF Digits Transmit , RFC2833 , INFO (SIP)

### Other Special Feature

FXO Bypass Line	A bypass FXO line is selected during a network failure or power outage
Auto Dial	DTMF mode
Dual Telephone	
Number	Each Line can be configured with two numbers: a PSTN number and an extension number
Support Primary and	
Backup soft switch	The Gateway can be configured and controlled by multiple soft switches
Color Ring-back Tones	The gateway can download and store up to twenty fashion ring-back tones

### Hardware

Maximum User Line	
Length	3000 meters
Ringer Equivalence	
Number	5 for short loop (300 meters),3 for long loop (1500 meters)
Ringing Voltage	60 V RMS
FXS Interface	
connector	RJ-11
Ethernet Interface	
connector	RJ-45 , 10 / 100 Base-T , 10/100 Auto Sensing
System Memory	32MB
Flash Memory	8MB
Central Processor	Motorola PowerPC 852
Digital Signal	
Processor	TI C5509
Input Voltage	5V/3A DC

Power Consumption 15 Watt(Max)

Dimension(H×W×D) 195×118×34 mm

Weight 0.65 kg

## **Environment Requirement**

Operation Humidity 10% to 95% , non-condensing

Operation Temperature 0 degree to 40 degree Celsius