

# New Rock Technologies MX Gateways

## FXS/FXO ATA/Gateway

The MX8A is perfect for service providers to deliver residential and small-office voice and fax services through broadband networks. The MX8A can also be used as an ATA for IP-PBXs to provide IP connectivity for the small company.

The MX8A offers multiple configurations:

- 4 FXS ports,
- 8 FXS ports,
- 4 FXO ports,
- 8 FXO ports and
- 4FXS+FXO ports.

The MX8A shares the same software and therefore the rich features of the MX Series and Smart ATA with Smart FoIP, high-quality voice, and industry-wide interoperability. Equipped with the MPC852 from Motorola as its control processor and high-performance 'C5509 DSPs from Texas Instruments for voice and fax processing, the MX has powerful computational capability for IP packetization, voice compression, and echo cancellation, even when the voice-fax traffic is at its peak.

### Rich Features

MX8A works on the embedded Linux operating system. With its powerful hardware platform and flexible software design, it can meet various voice application requirements. MX8A supports a variety of supplementary services including Caller ID, Call Forwarding, Call Waiting, and Fashion Ring-back, Intelligent Routing, RADIUS Billing Interface, Two Stage Dialing, Calling/Called Number Mapping, and Auto Dialing.

And for FoIP, the MX8A features Smart FoIP® from NetGen Communications. Smart FoIP eliminates the two most-common FoIP problems: late T.38 reINVITES and PCM clock-sync problems. This means the ITSP can stop saying, "Keep your POTS for fax."

### Easy to operate and maintain

The MX8A supports both web-based and standards-based remote configuration and management. Users can remotely upgrade the MX8A software, change the configuration parameters, download log files, and collect gateway performance data via TR069/TR104/TR106, SNMPv2, Telnet, TFTP, HTTP, and Option 66.

### High Interoperability

MX8A has passed interoperability tests with many PBX, softswitch, and gateway suppliers worldwide.

### Support

Support in the EU and Western Hemisphere is provided by NetGen Communications; New Rock Technologies provides support elsewhere.



- Ideal for SOHO, IP-PBX, and residential VoIP applications
- Advanced VoIP/FoIP technologies including SIP, iLBC, and voice encryption, G.711 & T.38 fax relay with Smart FoIP (patent 9,094,419)
- High voice quality
- Compact package
- User-friendly provisioning tools
- Featuring busy tone auto detection, DTMF detection, fashion ringing tones, hook-flash relay and etc
- Compatible with dozens of SIP platforms



# New Rock Technologies VoIP Gateways



## System Specifications

Configuration	4 or 8 FXS analog ports; 4 FXO analog ports, mixed 4FXS/FXO analog ports
Voice Processing	Voice Codec: G.711, G.729A, G.723.1, GSM, iLBC Echo Cancellation: G.168; Tail Length: 8/16/32 milliseconds Dynamic Jitter buffer; Voice Activity Detector (VAD); and Comfort Noise Generator (CNG)
Calling Control	Called/calling number Mapping; Line Hunting
Fax Processing	G.711, T.38 Fax Relay with Smart FoIP
Billing	RADIUS Interface; Polarity Reverse
Gateway Configuration	Web-based User Interface; Text Based Configuration
Remote Provisioning	HTTP/WEB More; Remote Configuration using New Rock EMS; Remote Software Upgrade, Alarm, Performance Data, Option 66

### Signaling

Off Hook Detection	FXS Loop State, DDI
VoIP Protocol	SIP (RFC3261), MGCP (RFC2705)
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 Busy Tone Detection	On FXO ports to detect busy tone from POTS line
Dual Telephone Number	Each line can be configured with one PSTN number and one extension

Primary and Backup Switches	The gateway can be configured and controlled by multiple softswitch
Color Ring-back Tones	The ATA can download and store up to twenty ring-back tones

### Hardware

Max. User Line Length	3000 Meters
Ringer Equivalence number	5 for short loop (300 meters), 3 for long loop (1500 meters)
Ringing Voltage	60V RMS
FXO/FXS Connector	RJ-11
Ethernet Connector	RJ-45, 10/100 base-T, 10/100 Auto Sensing
System memory	32 MB
Flash Memory	8 MB
Central Processor	Motorola PowerPC 852
Digital Signal Processor	TI C5509
Input Voltage	5V/3A DC (A AC/DC convector is provided)
Power Consumption	15 Watt (Max)
Dimension (H x W x D)	15 x 118 x 24 mm
Weight	0.65 kg

### Environment Requirement

Operation Humidity	10% to 90%, non-condensing
Operation Temperature	0 degree to 45 degree Celsius
Non Operation Temperature	110 degree to 60 degree Celsius

### Other Rules and Regulations

FCC Part 15

## Related Products

- MX VoIP Gateway Series
- MX100-TG Trunking Gateway
- OM IP-PBX
- OX Hybrid Office Telephone System
- Element Management System