8312 EXPANDED IP PAGING ADAPTER

Bridge UC platforms, paging systems, radio users, and automated communication workflows.

Building on the SIP paging, scheduling, amplifier integration, and smart relay capabilities of the 8301 IP Paging Adapter & Scheduler, the 8312 Expanded IP Paging Adapter adds handheld radio integration (e.g., Motorola Curve), separate paging and radio audio outputs, and twelve additional relay sensor inputs.

** FRONT AND BACK VIEWS SHOWN*

UNIFIED PAGING, RADIO, AND UC COMMUNICATION

The 8312 Expanded IP Paging Adapter builds on the SIP paging capabilities of the 8301 IP Paging Adapter & Scheduler, combining UC-based voice paging, scheduling, legacy amplifier integration, handheld radio integration, and relay-triggered workflows in a single network-connected device.

Distribute audio from UC platforms to overhead paging systems, compatible radio users, or both simultaneously. By bridging UC communications, PA infrastructure, and handheld radio systems, the 8312 extends critical messages across a wider range of physical environments and operational teams.

Optimized to integrate base station-free handheld radio systems, the 8312 is compatible with Motorola Curve radios. For radio systems that use a base station, the Algo 8301 may also be used. Contact Algo to discuss compatibility with other handheld radio systems.

EXPANDED INPUTS FOR SENSOR-TRIGGERED AUDIO WORKFLOWS

The 8312 adds twelve relay sensor inputs, in addition to the one standard smart relay, to support more event-driven communication workflows. Connect contact closures, call buttons, weight sensors, switches, or other operational triggers to initiate pre-recorded messages, paging events, SIP calls, endpoint actions, strobe activation, and other automated responses.

By combining SIP paging, handheld radio integration, amplifier connectivity, scheduling, smart relay control, and sensor-triggered actions into one device, the 8312 simplifies deployment while expanding automated IP communication workflows.

KEY FEATURES

- PoE network connection
- Integration with UC platforms and SIP PBXs via SIP
- Handheld radio integration
- Radio-to-PA audio workflows
- UC-to-radio audio workflows
- Multiple relay inputs
- Independent paging and radio audio control
- Local wired trigger support

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ALGO

8312 EXPANDED IP PAGING ADAPTER

POWER	
POWER SOURCE	PoE (IEEE 802.3af Class 0) 48 V, 15.4 W
MAX POWER (AT DEVICE)	4 W
IDLE POWER	2W

SIP	
SIP EXTENSIONS	• 50 Page (Capable of talkback when appropriate speaker and microphone connected) • 10 Emergency Alert • 10 Ring
SIP SIGNALLING/ TRANSPORT PROTOCOLS	UDP, TCP, RTP
SECURITY	TLS, SRTP, Mutual Authentication
AUDIO CODECS	G.711 u-law, G.711 A-law, G.722 Wideband

MULTICAST	
RTP MULTICAST	Send and Receive 50 Zones
AUDIO CODECS	G.711 u-law, G.711 A-law, G.722 Wideband, Opus Fullband

COMPATIBILITY	
THIRD PARTIES	• RESTful API • Poly Group Page • Singlewire InformaCast (additional license required) • Intrado OneAlert • Microsoft Teams

CONFIGURATION & PROVISIONING	
CONFIGURATION	Web interface or provisioning server
WEB INTERFACE	HTTP, HTTPS
PROVISIONING	• TFTP, FTP, HTTP, HTTPS • DHCP Options 66, 150, 160 • Reboot via SIP 'check-sync'
ZTP	Supported
SUPERVISION	Compatible with Algo Device Management Platform (ADMP), Algo 8300 IP Controller, any third-party SNMP monitoring software, and RTCP

NETWORKING	
NETWORKING	IPv4, IPv6, DHCP, VLAN, MDNS
LINK LAYER	LLDP, CDP
SECURITY	IEEE 802.1X
QOS	DSCP
NAT	STUN, TURN, CRLF Keep Alive, SIP Outbound
ADDRESS RESOLUTION	DNS, SRV Record
REDUNDANCY	Secondary and tertiary SIP server
TIME	NTP Server (up to four)

AUDIO	
MICROPHONE	Connection available for external microphone
AUDIO OUTPUT CHANNEL	Selectable: Page Output Only, Radio Output Only (Motorola Curve radio system), or Both
AUDIO MEMORY & FORMAT	1 GB audio storage for WAV or MP3 files
AUDIO CONTROLS	Volume (separate controls for Page and Radio), AGC, Latency, LF Cut
ANTI-FEEDBACK DELAY	Cache to memory and release
AUDIO DELAY	Programmable 1-1000 ms synchronization delay

INPUT/OUTPUT	
PAGE AUDIO OUT	Two options: 1. Terminal block to external amplifier. Balanced and isolated wire pair output. Polarity independent 2. 3.5 mm jack to external amplifier. Balanced and isolated output
PAGE RELAY	Relay output. Max 30 V 50 mA (normally open)
LINE IN	Terminal block to external audio source. Balanced and isolated wire pair input. Polarity independent
SMART RELAY	Relay input. Normally open or normally closed dry contact with supervision. Compatible with Algo 1211 Single Button, 1212 Dual Button, 1202 Call Button, 1203 Call Switch, 1204 Volume Control, 1205 Audio Interface, 2507 Ring Detector, EOL resistor termination
12 SENSOR INPUTS	Terminal block inputs. Normally open or normally closed dry contact
RADIO	RJ12 port for Motorola Curve radio input/output (via a customized Radio Connector Cable)
USB	USB-A connector (reserved for future use)
AUX IN	3.5 mm jack for analog line level input for audio input. Non-isolated
AUX OUT	3.5 mm jack for analog line level output for compatible PC speakers or headset output with microphone input. Non-isolated

SMART RELAY INPUT CURRENT DRAW DETECTION

THRESHOLD	ACTIVE	IDLE	TAMPER
NORMALLY OPEN	> 4 mA	< 4 mA	N/A
NORMALLY OPEN WITH SUPERVISION	> 20 mA	4-20 mA	< 4 mA
NORMALLY CLOSED	< 4 mA	> 4 mA	N/A
NORMALLY CLOSED WITH SUPERVISION	4-20 mA	> 20 mA	< 4 mA
NOMINAL 12 V SOURCE, CURRENT LIMITED TO 40 MA	Typical supervision resistor value = 1 k Ohm		

ENVIRONMENTAL & MECHANICAL	
ENVIRONMENTAL	0 to +40 deg C (32 to 104 deg F); 10-95% RH non-condensing. Dry indoor locations only
DIMENSIONS (PRODUCT)	6.8" × 4.3" × 1.3" (17.3 cm × 10.9 cm × 3.2 cm)
WEIGHT (PRODUCT)	0.9 lbs (0.4 kg)
WEIGHT (SHIPPING)	1.5 lbs (0.7 kg)
MOUNTING	Snap mounting bracket included

COMPLIANCE

RoHS, CE, FCC Class A, CISPR 22 Class A, CISPR 24, CSA/UL (USA & Canada)

FRONT

BACK

ORDERING CODES:

8312 Expanded IP Paging Adapter

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Note: Specifications are subject to change without notice. Some features may only be available in specific firmware or hardware releases.