## High Intelligibility Speaker with Clock Display and Visual Alerter

The 8190S IP Speaker – Clock & Visual Alerter is a SIP-compliant and multicast-capable PoE network speaker often installed in classrooms to deliver clear voice paging, emergency notification, loud ringing, and background music with the addition of a clock display and multi-color visual alerter.

The 8190S IP Speaker – Clock & Visual Alerter is a network-based wall-mount speaker designed to deliver clear audio communication with the addition of a high visibility clock and visual alerting. Using a four-speaker line array, the 8190S provides asymmetric sound dispersion for improved sound distribution in classrooms and other office environments. The LEDs on either side of the speaker offer highly noticeable visual communication with four color selections: red, blue, amber, and green. The speaker's digital clock automatically synchronizes with an NTP server, ensuring time accuracy.

Featuring wideband audio, the 8190S provides enhanced speech clarity and intelligibility in most indoor locations, such as classrooms and hallways.

Leveraging multicast, the 8190S can simultaneously broadcast live voice or active ringtone over the network to other Algo IP Speakers (including additional 8190S devices) and IP Visual Alerters either all at once or in zone groups.

An embedded microphone allows the 8190S to monitor ambient noise where volume is automatically adjusted according to background noise levels for paging and alerting. The microphone may also be used for two-way talkback.

The 8190S contains 1 GB internal memory and is pre-loaded with several commonly used audio files for ring sounds. Users may also record or upload custom audio files, such as music, sound effects, or voice announcements.

As a 3rd-party, SIP-compliant speaker, the 8190S integrates into most leading UC, Collaboration, and Mass Notification platforms. The speaker supports Secure SIP (TLS & SRTP), secure provisioning, and web configuration (HTTPS).

### FEATURES

— Wideband HD audio (G.722 voice codec) for high intelligibility speech
— Secure SIP using TLS and SRTP
— LED digital clock
— Four color LED visual alerters (red, green, blue, amber)
— Configurable via user-friendly web interface or auto-provisioning
— Ambient noise response to automatically adjust audio output level
— Two-way talkback
— Multicast send and receive
— Configure up to 50 page zones
— PoE powered (IEEE 802.3af)
— Class-D Amplifier
— Smart relay input for accessories
— Upload custom audio files for announcements and alert tones
— Built-in call button

### APPLICATIONS

— Voice paging
— Emergency and safety notifications
— Background music
— Loud ringing
— Clock display
— Visual notification
— Zoned paging and notifications
— Suitable environments include: classroom, cafeteria, office, hallway, reception area.
— The 8190S is ideal for audio and visual communication (for audio-only communication, see the 8190)

Algo Communication Products Ltd.
4500 BEEDIE ST, BURNABY V5J 5L2, BC, CANADA

ALGOSOLUTIONS.COM
PS-8190S-190324

INFO 1-604-454-3790
SUPPORT 1-604-454-3790

## POWER

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|---|---|
| **POWER SOURCE** | PoE+ (IEEE 802.3at Type 2 Class 0) 48 V, 30 W |
| **MAX POWER (AT DEVICE)** | 25.5 W |
| **IDLE POWER** | 5-8 W, depending on time displayed on clock |

## SIP

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| **SIP EXTENSIONS** | • 50 Page (Capable of hands-free talkback)<br>• 10 Emergency Alert<br>• 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

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

## COMPATIBILITY

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|---|---|
| **THIRD PARTIES** | • RESTful API<br>• Poly Group Page™<br>• InformaCast® (additional license required)<br>• Intrado Revolution®<br>• Microsoft Teams® |

## CONFIGURATION & PROVISIONING

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

## NETWORKING

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|---|---|
| **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

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| **SPEAKER** | 4 element wideband array |
| **SPL** | 98 dBA at 1 m |
| **MICROPHONE** | Omnidirectional - talkback and ambient noise monitoring |
| **FREQUENCY RESPONSE** | 100 - 15,000 Hz +/- 3 dB |
| **DISPERSION ANGLE** | 140 deg H x 25 deg V (-6 dB 2 kHz) |
| **AUDIO MEMORY & FORMAT** | 1 GB audio storage for WAV or MP3 files |
| **AUDIO CONTROLS** | Volume, AGC, Latency, LF Cut |
| **ANTI-FEEDBACK DELAY** | Cache to memory and release |
| **AUDIO DELAY** | Programmable 1-1000 ms synchronization delay (in multicast receiver mode) |
| **MAX AUDIO POWER** | 8 W |

## CLOCK

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| **DISPLAY** | White LED 2.25" (57.2 mm) |

## OPTICAL

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| **VISUAL ALERTING** | 24 Cree LED per side |
| **4 COLORS** | • Red, Blue, Green, Amber<br>• 12 LEDs of each color<br>• 10 Flash Patterns<br>• 3 Brightness Levels |

## INPUT/OUTPUT

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| **RELAY INPUT** | Normally open or normally closed dry contact with supervision. Algo 1202 Call Button, 1203 Call Switch, 1204 Volume Control, EOL termination. |
| **RELAY OUTPUT** | Max 30 V 50 mA (normally open) |
| **CALL BUTTON** | Built-in illuminated button below speakers |
| **OTHER PORTS** | • Door control<br>• 24 V Output |

### RELAY INPUT CURRENT DRAW DETECTION

| THRESHOLD | ACTIVE | IDLE | TAMPER |
|---|---|---|---|
| **NORMALLY OPEN** | > 4 mA | < 4 mA | N/A |
| **NORMALLY OPEN WITH SUPERVISION** | > 20 mAv | 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 kΩ | | |

## ENVIRONMENTAL & MECHANICAL

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|---|---|
| **ENVIRONMENTAL** | 0 to +40 deg C (32 to 104 deg F); 10-95% RH non-condensing. Dry indoor locations only. |
| **ENCLOSURE** | High impact UV stabilized flame retardant plastic - light grey |
| **DIMENSIONS (PRODUCT)** | 16" x 8.25" x 3" (40.7 cm x 21.0 cm x 7.6 cm) |
| **WEIGHT (PRODUCT)** | 5.2 lbs (2.4 kg) |
| **WEIGHT (PRODUCT+BRACKET)** | 7.2 lbs (3.3 kg) |
| **WEIGHT (SHIPPING)** | 8.10 lbs (3.7 kg) |
| **MOUNTING** | Wall mount metal bracket included. Concealed wiring or surface conduit (1/2") Includes anti-tamper screws. |

## COMPLIANCE

RoHS, CE, FCC Class A, CISPR 22 Class A, CISPR 24, CSA/UL (USA & Canada), EN60950

**FRONT**

**BACK**



### ORDERING CODES:

| | |
|---|---|
| **8190S** | IP Speaker – Clock & Visual Alerter |
| **8190S-IC** | InformaCast IP Speaker – Clock & Visual Alerter |

### COMPATIBLE ACCESSORIES:

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|---|---|
| **1202** | Call Button |
| **1203** | Call Switch |
| **1204** | Volume Control |