



## Features

*Two E&M circuits per module*

*Eight analog E&M line interfaces allowing up to eight simultaneous VoIP calls*

*Installed with Cisco Call Manager Express (CME)*

*Immediate start, wink start, delay dial*

*Automatic ringdown*

*Dialing (performed using DTMF and Pulse Events)*

*Receive and Transmit gain*

*Echo cancellation*

*G.711 and G.729 codecs*

*Rackmount hardware package included*

*RoHS compliant*

# Cisco Analog 8E/M SIP Gateway

The Cisco® Analog 8E/M SIP (Session Initiation Protocol) Gateway is a telephony gateway that allows Scout systems to interface with phones, key systems, and PBX systems.

Avtec ships this Cisco 4331 chassis installed with four two-port E/M voice interface cards (VIC3-2E/M) which support two E&M circuits per module via RJ45 connectors. Receive and transmit (E&M) is a signaling technique for 2-wire and 4-wire telephone and trunk interfaces.

This SIP Gateway also comes installed with Cisco Call Manager Express (CME), which includes 25 user licenses.

## GENERAL SPECIFICATIONS

**Interface Type:** E&M (for PBX trunking, hoot phones, or radio systems)

**Cisco IOS Software Release:** 16.6.3

**Compliance:** FCC Class A device, CE

**Safety Conformance:** UL60950

**Address Signaling Formats:** In-band DTMF

**Signaling Modes:** Loop start, ground start, wink start

**Battery Polarity Reversal Detection:** Detection of disconnect supervision and far-end answer supervision via battery polarity reversal

**MTBF:** 587,250 hours

**Codecs Supported:** G.729 and G.711 uLaw

**Echo Cancellation:** Up to 128 ms

**Warranty:** 1 year

## PHYSICAL AND POWER SPECIFICATIONS

### PHYSICAL

**Unit Dimensions (HxWxD):** 1.73 in × 17.25 in × 19.97 in (4.39 cm × 43.82 cm × 50.72 cm)

**Rack Height:** 1 RU (rack unit)

**Maximum Weight:** 16.1 lb (7.3 kg)

**Airflow:** I/O side to bezel side

**Physical Connector:** 2 RJ45 ports

**Number of Connectors/Ports:** 1

**Operating Temperature:** 32 °F – 104 °F (0 °C – 40 °C)

**Operating Humidity:** 5% – 85% non-condensing

### POWER

**AC Power:** 100-240 volts AC autoranging

**AC Input Frequency:** 47 to 63 Hz

**AC Input Current Range AC Power Supply (Maximum):** 3 to 1.3A

**AC Input Surge Current:** 60 A peak and less than 5 Arms per half cycle

**Maximum Power with AC Power Supply (Watts):** 250

## COMPLIANCE AND STANDARDS SPECIFICATIONS

### REGULATORY COMPLIANCE

**Safety:** UL 60950-1 CAN/CSA C22.2 No. 60950-1 EN 60950-1 AS/NZS 60950-1 IEC 60950-1

**EMC:** 47 CFR, Part 15 ICES-003 Class A EN55032 Class A CISPR32 Class A VCCI V-3 CNS 13438 EN 300-386 EN 61000 (Immunity) EN 55024, CISPR 24 KN22, KN24

**Telecom:** TIA-968 -B CS-03 ANSI T1.101 ITU-T G.823, G.824, IEEE 802.3 RTTE Directive

**Environmental:** RoHS Compliant (Restriction of Hazardous Substances)

### SUPPORTED STANDARDS

**Telco:** FCC Part 68, TS-016, TBR4, TS-038, CS03

A full list of specifications for the Cisco 4331 Integrated Services Router can be found on the Cisco website.