**EQUIPMENT SPECIFICATION**

**GAI-TRONICS**

**RED ALERT® HANDSFREE**

**EMERGENCY AND ASSISTANCE**

**VOICE OVER INTERNET PROTOCOL (VoIP)**

**AND WIFI TELEPHONE PRODUCTS**

**EQUIPMENT SPECIFICATION**

**GAI-TRONICS RED ALERT® HANDSFREE**

**EMERGENCY and ASSISTANCE**

**VOICE OVER INTERNET PROTOCOL (VoIP)**

**TELEPHONE PRODUCTS**

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**397-810A 11.3.0**

**397-811A 11.4.0**

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* 1. **Scope and Intent**

This specification identifies and details GAI-TRONICS’ VoIP handsfree telephone products, accessories, and peripherals to provide two-way, emergency and/or non-emergency communications. Each VoIP telephone shall be considered an “end device”, designed for installation into an existing SIP compatible VoIP system. All servers, hubs, power supplies, and other active VoIP system/network devices shall be the responsibility of others.

Unless specified otherwise, Emergency telephone products specified herein shall comply with the Americans with Disabilities Act (ADA) in both physical and operational characteristics.

**2.0.0 Seller Warranties**

* 1. The Seller warrants the satisfactory and successful operation of all equipment furnished under this specification at the ratings, under the conditions, and for the type of service specified herein.
	2. Goods manufactured by the seller are warranted to be free from defects in material and workmanship until one year after the date of shipment. Equipment supplied by but not manufactured by the seller shall be subject to the original equipment manufacturer’s standard warranty.
	3. **Workmanship**

All work shall be performed in accordance with the best modern practice in design, manufacture, and fabrication of all material and apparatus by this specification, notwithstanding any omission from the specifications or drawings.

**4.0.0 Material and Construction**

All materials used in the construction of the apparatus shall be new and selected as the best available for the intended purpose, considering long life and best engineering practices. Factors of safety shall be used throughout the design. Only heavy-duty industrial components rated to operate within the temperature ranges and other environmental conditions specified in Paragraph 7 shall be used.

* 1. **Installation**

The specified Emergency and Assistance Telephone products shall be design for installation on an existing ethernet network and shall provide an RJ45 connection to that network. Equipment and wiring shall be installed by the Purchaser.

If required, seller shall provide technical guidance during installation and/or testing, via telephone, at no additional charge. After installation is completed, the Seller shall be prepared to perform a checkout of the system. If required by the buyer, a seller-provided factory technician shall visit the job site to assist with system layout and design (pre-sale) or to make necessary adjustments and instruct the operating and maintenance personnel on the proper use and care of the system (post-sale). Charges for these on-site services shall be on a per diem basis (including travel time), plus all expenses on a cost-plus basis.

* 1. **Operation and Maintenance Instructions**

All equipment requiring continued interaction, service, or support shall be provided with complete operation (user) and maintenance (service) manuals. All available documentation shall be packaged with the equipment and/or readily accessible via the manufacturer’s website.

* 1. **Environmental Conditions**

Equipment shall be suitable for use in designated environmental conditions per the appropriately listed performance specification.

* 1. **Equipment Operation**

VoIP Telephones shall be specified as “Handsfree” and shall be offered in the following configurations:

* Single Emergency push button autodial operation, surface and flush mounting
* Compact Single Emergency push button autodial operation, flush mounting
* Emergency push button autodial and call (dial tone) push button with keypad (emergency autodial and general telephone calls), surface and flush mounting
* Emergency and Assistance autodial push buttons (emergency autodial and non-emergency autodial), flush mounting
* Compact Emergency and Assistance autodial push buttons (emergency autodial and non-emergency autodial), flush mounting.
* Call push button with keypad (hands-free standard telephone operation, non-emergency)
* Compact Call push button with keypad (hands-free standard telephone operation, non-emergency)

WiFi Telephones shall be specified as “Handsfree” and shall be offered in the following configurations:

* Single Emergency push button autodial operation, surface and flush mounting
* Emergency push button autodial and call (dial tone) push button with keypad (emergency autodial and general telephone calls), surface and flush mounting
* Emergency and Assistance autodial push buttons (emergency autodial and non-emergency autodial), flush mounting

All VoIP and WiFi Telephones shall provide standard DTMF, ring, and dial comfort tones. Each telephone shall include the following features:

* Automatic call divert/rollover (memory list)
* Weather and vandal resistant
* Real-time alarm reporting via SNMP, syslog, or dedicated monitoring software
* Power-over-Ethernet (PoE) compatible
* Configurable via web page, serial link, or download
* Two, programmable volt-free contact outputs (rated at min. 5A @ 250V ac / 30 V dc)
* Direct peer-to-peer dialing (point-to-point)
* Multicast capability, up to eight addresses
* ADA compliant

Telephones equipped with a HELP pushbutton shall be capable of being programmed to autodial up to three different telephone emergency telephone numbers. These shall include a primary telephone number and two “rollover” telephone numbers. The HELP pushbutton red, designed for “palm activation”, and shall be located on the front of the telephone. The pushbutton’s associated labeling shall state the word “HELP” and shall be permanently affixed to the front panel of the telephone. The “HELP” label shall include Braille lettering of the same word. Activation of this pushbutton shall cause the telephone to automatically dial a pre-programmed number (address) for emergency communications. Emergency call operation shall take precedence over non-emergency call operation.

Telephones equipped with a non-emergency pushbutton shall be capable of being programmed to autodial up to three different non-emergency telephone numbers. These shall include a primary telephone number and two “rollover” telephone numbers. The non-emergency pushbutton’s associated labeling shall state the word “ASSISTANCE” silk-screened to the front panel. Activation of either pushbutton shall cause the telephone to automatically dial a pre-programmed number (address) for non-emergency communications. Emergency call operation shall take precedence over non-emergency call operation.

If an emergency or assistance call cannot connect to the primary telephone number (i.e., a busy signal or no answer), the emergency telephone shall automatically dial the first rollover number. If the first rollover number is busy or no answer, the telephone shall automatically dial the second rollover telephone number. The number of call attempts shall be programmable. If rollover numbers are not required by system operation, simply not programming the two rollover numbers shall cause the emergency telephone to continuously ring the primary telephone number until redirected by the telephone system head-end, or the call is abandoned. Telephones equipped with a CALL push button shall be capable of accessing the network dial tone and calling a number dialed via an integral keypad.

Telephones equipped with keypad operation shall be activated via an “off hook” pushbutton and a 12-button keypad. A black activation button labeled “CALL” shall provide dial tone access, allowing the user to utilize the keypad to manually dial a desired number (address) for standard, hands-free telephone operation.

The Emergency and Assistance telephones shall be capable of receiving incoming calls by manually pressing a button or by automatically answering the call. When answering automatically, the Emergency telephone shall be capable of generating a splash/notification tone or signal identifying the telephone as being in audio monitor mode of operation.

Disconnecting a call shall be capable of being performed via:

* Manual disconnect of an emergency call
* Manual disconnect of a non-emergency call
* Automatic disconnect

All specified Emergency and Assistance telephone models shall be provided with tamper-resistant security screws to prevent undesired access to the equipment electronics. All surface-mount telephones shall be designed to hide the mounting hardware from external access when the cover is installed.

All Specified VoIP and WiFi Emergency Telephones shall include an integral microphone and speaker for handsfree operation. An L.E.D. indicator shall be provided to signal when the call has been received. This L.E.D. shall be labeled “Call Received When Lit”. Labels with the word “EMERGENCY” shall be affixed to both sides of surface-mount telephones.

Specified equipment shall provide dial-up (automatic or manual), two-way communications over 10/100 BaseT Ethernet (RJ45) network. The system shall provide Call Control/Set-up Signaling via Signal Initiated Protocol (SIP), RFC3261.

All specified VoIP and WiFi Telephones shall meet the following technical requirements:

**Codes and Audio:** G.711 A-Law G.711 µ-Law G.722 G.729 G.723.1 MP-MLQ G.723.1 ACELP; Codec preference sequence, DTMF in band/out of band (RFC2883), configurable comfort tones (nation specific)

**Call Set-up Protocol:** Session Initiation Protocol (SIP), RFC3261 compliant

**WiFi Network (when required):** IEEE 802.11 a/b/g/n; Static IP provisioning or DGCP STUN client

**Security:** Password protected

**Reliability:** MTBF of greater than 50,000 hours, using MIL-HDBK-217F Notice 2

**Quality of Service:** Priority of IP Packets according to TOS and DiffServ VLAN Priority according to IEEE8021.p/802.1q.

**Configuration/IP Address:** Via configuration file or on-board password protected web page server; Static IP address or Dynamic Host Configuration Protocol (DHCP)

**Monitoring:** Automatic fault reporting via SNMP or Syslog messaging; Real-time over TCP/IP proprietary Syslog Application; Scheduled reporting via system polling by central PC software

**Update Server:** Configuration and Firmware update via TFTP

**Redundancy:** Supports up to 4 SIP proxys

**Time/Date:**  Simple Network time protocol with time zone and daylight saving; date format – European / U.S.

All specified VoIP and WiFi telephones shall be capable of reporting connection and equipment faults via SNMP, the Syslog, or by being monitored from a central PC that hosts dedicated software designed for monitoring operation via polling or call-in protocol. Said software shall be designed and provided by the emergency and assistance telephone manufacturer. Reported faults, at minimum, shall include:

* **Configuration Error** –Signal that the configuration file currently used by the unit has one entry errors which have been ignored.
* **Cold Reset** – Signal the unit has been reset due to a power cycle (failure)
* **Warm Reset** – Signal the unit has reset due to an internal software command or error
* **Keypad Error** – Signal that a key has remained pressed for the entire usage period
* **Register Fail** – Signal a failure to register with the Proxy server for a period in excess of the usage period
* **Audio Path Test** - Signal a failure in the microphone/speaker operation
	1. **Field Wiring/Interconnection**

Power shall be provided to each VoIP telephone device via 24V min., 53V max. dc or IEEE Compliant Power-Over-Ethernet (PoE), over spare pairs only. Telephones shall draw a maximum of 12W.

Power shall be provided to each WiFi VoIP telephone device via a plug-in power supply, rated 120/240 V ac input with 24V dc output @ 1 ampere. In addition to a having a U.S. plug, the provided power supply shall include international adapter clips to permit installation in and usage in Europe, UK, and Australia. The specified power supply shall also be made available for use with the VoIP telephones in lieu of PoE.

VoIP network cable shall comply with Cat5 or Cat5e UTP Static IP provisioning or DHCP STUN client standards and connect to each VoIP Telephone via RJ45 connector.

**10.0.0 Handsfree VoIP Emergency Telephones**

10.1.0 Single-button VoIP Emergency Telephone, Surface-mount

* + 1. Description

The Single-button VoIP Emergency Telephone described in this section shall be designed for surface mounting on any flat surface or for mounting to a pole, with the appropriate mounting hardware, and shall be designed for indoor or outdoor use. It shall comply with Sections 1.0.0 (Scope and Intent) and 8.0.0 (Equipment Operation) of this specification. The Emergency Telephone shall be designed for single push button activation with handsfree communications following initial telephone line connection.

* + 1. Performance Specification

The Single-button VoIP Emergency Telephone shall meet the following performance and physical specifications:

**Electrical**

Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …….Power-over-Ethernet, 802.3af compliant (via

 RJ45), or External power supply 24-53 V dc, 200 mA,

 a separate, isolated supply must be provided for each

 telephone.

Power consumption . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 Watts, max.

Microphone . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …Electret

**Inputs**

Push Buttons (as applicable) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Emergency Auto-dial

**Outputs**

Programmable Output (2) Contact Rating. . . . . . . . . . . . . . . . 5 A @ 250V ac/30 V dc (resistive load)

**Controls**

External (as applicable). . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . Keypad, push-button inputs

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Speaker volume, mic bias, reset switch

**Indicators**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Call received L.E.D.

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Audio output . . . . . . . . . . . . . . . . . . . . . . . . . . . . …… 90 dB SPL or greater @ 0.5.meters (@ 1KHz)

Call Diversion . . . . . . . . . . . . . . . . . . …. . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs

 (max 20 entries) with comfort tones,

 diverts to next in list if the call fails

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Direct surface/wall mounting (pole mounting with kit)

Conduit Entry . . . . . . . . . . . . . . . . . . . . . . . . . . …. . . .. . 3/4" NPT female entry (aluminum encl. only)

Electrical Connections . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . RJ45 and Terminal block

Housing Material . . . . . . . . . . . . . ……….. . . . (Safety Yellow) Cast Aluminum or Engineered Plastic

Dimensions . . . . . . . . . . . . . . . . . . . . 9.52 (241.8) H x 8.02 (203.7) W x 8.12 (206.2) D; inches (mm)

Net Weight . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Cast aluminum @ 8.5 lbs. (3.86 kg)

 Engineered Plastic at 4.0 lbs. (1.81 kg)

# Environmental

Temperature Range

 Operating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . -4º F to + 140º F (-20º C to +60º C)

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . -40º C to +70º C

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . ……………… . . . . . . . . . . . . . . . . Type 3R

Humidity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Up to 95% non-condensing

Printed Circuit Board. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

Compliance to Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . FCC CRF 47 Part 15

Safety of Information Technology Equipment………………………….………..………….UL/CSA 60950

Enclosures for Electrical Equipment…………………………………………………………………Type 3R

* + 1. Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Single-button VoIP Emergency Telephone, Surface-mount.

**Pole Mounting Kit** shall be designed to allow mounting of the emergency and assistance telephones to a pole with a maximum diameter of 4-inches.

**L.E.D. Strobes,**  as referenced in section 12.1.0.

**Strobe Mounting Assembly** shall be offered for pole or wall mounting the L.E.D. Strobe.

**Security Screwdriver** shall be offered to permit installation, access, and removal of the Emergency and Assistance telephones.

**Telephone Management Application Software** as referenced in section 12.6.0

* + 1. Equipment Manufacturer and Model Numbers

The Single-button VoIP Emergency Telephones, Surface-mount shall be GAI-Tronics RED ALERT® model numbers specified as follows:

* **393-710 Surface-Mount Handsfree VoIP Emergency Telephone**, single-button emergency (“HELP”) autodial operation, engineered plastic enclosure, safety yellow
* **393AL-710 Surface-Mount Handsfree VoIP Emergency Telephone**, single-button emergency (“HELP”) autodial operation, aluminum enclosure, safety yellow epoxy paint

Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **231-002** Pole Mounting Kit
* **540-001** L.E.D. Strobe, 120 V ac
* **541-001** L.E.D. Strobe, 12-24 V dc
* **4115A** Strobe Mounting Kit
* **233-001** Tamper-resistant Screwdriver
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephones
	1. Single-button Autodial with Call Button and Keypad, VoIP Emergency Telephone, Surface- mount

10.2.1 Description

The Single-button Autodial with Call Button and Keypad, VoIP Emergency Telephone, Surface-mount described in this section shall be designed for surface mounting on any flat surface or for mounting to a pole, with the appropriate mounting hardware, and shall be designed for indoor or outdoor use. It shall comply with Sections 1.0.0 (Scope and Intent) and 8.0.0 (Equipment Operation) of this specification. The Emergency Telephone shall be designed for single push button activation with handsfree communications following initial telephone line connection. In addition to the single button activation, the emergency telephone shall include a Braille keypad and separate “call” pushbutton for local calling or building access. Pressing the call pushbutton a second time shall enable the caller to place additional calls without disengaging the telephone line.

10.2.2 Performance Specification

The Single-button Autodial with Call Button and Keypad, VoIP Emergency Telephone shall meet the following performance and physical specifications:

**Electrical**

Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …….Power-over-Ethernet, 802.3af compliant (via

 RJ45), or External power supply 24-53 V dc, 200 mA,

 a separate, isolated supply must be provided for each

 telephone.

Power consumption . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 Watts, max.

Microphone . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …Electret

**Inputs**

Keypad . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3x4 matrix

Push Buttons (as applicable) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Call, Emergency Autodial

**Outputs**

Programmable Output (2) Contact Rating. . . . . . . . . . . . . . . . 5 A @ 250V ac/30 V dc (resistive load)

**Controls**

External (as applicable). . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . Keypad, push-button inputs

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Speaker volume, mic bias, reset switch

**Indicators**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Call received L.E.D.

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Audio output . . . . . . . . . . . . . . . . . . . . . . . . . . . . …… 90 dB SPL or greater @ 0.5.meters (@ 1KHz)

Call Diversion . . . . . . . . . . . . . . . . . . …. . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs

 (max 20 entries) with comfort tones,

 diverts to next in list if the call fails

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Direct surface/wall mounting (pole mounting with kit)

Conduit Entry . . . . . . . . . . . . . . . . . . . . . . . . . . …. . . .. . 3/4" NPT female entry (aluminum encl. only)

Electrical Connections . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . RJ45 and Terminal block

Housing Material . . . . . . . . . . . . . ……….. . . . . . . . . . . . . .. . . . . . . . (Safety Yellow) Cast Aluminum

Dimensions . . . . . . . . . . . . . . . . . . . . 9.52 (241.8) H x 8.02 (203.7) W x 8.12 (206.2) D; inches (mm)

Net Weight . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Cast aluminum @ 8.5 lbs. (3.86 kg)

Keypad . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . Braille, chrome plated zinc

# Environmental

Temperature Range

 Operating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . -4º F to + 140º F (-20º C to +60º C)

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . -40º C to +70º C

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . ……………… . . . . . . . . . . . . . . . . Type 3R

Humidity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Up to 95% non-condensing

Printed Circuit Board. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

Compliance to Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . FCC CRF 47 Part 15

Safety of Information Technology Equipment………………………….………..………….UL/CSA 60950

Enclosures for Electrical Equipment…………………………………………………………………Type 3R

10.2.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Single-button Autodial with Call Button and Keypad, VoIP Emergency Telephone:

**Pole Mounting Kit** shall be designed to allow mounting of the emergency and assistance telephones to a pole with a maximum diameter of 4-inches.

**L.E.D. Strobes,**  as referenced in section 12.1.0.

**Strobe Mounting Assembly** shall be offered for pole or wall mounting the L.E.D. Strobe.

**Security Screwdriver** shall be offered to permit installation, access, and removal of the Emergency and Assistance telephones.

**Telephone Management Application Software** as referenced in section 12.6.0

* + 1. Equipment Manufacturer and Model Numbers

The Single-button Autodial with Call Push Button and Keypad, Surface-mount VoIP Emergency Telephone shall be GAI-Tronics RED ALERT® model number **394AL-712.** Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **231-002** Pole Mounting Kit
* **540-001** L.E.D. Strobe, 120 V ac
* **541-001** L.E.D. Strobe, 12-24 V dc
* **4115A** Strobe Mounting Kit
* **233-001** Tamper-resistant Screwdriver
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephones

10.3.0 Single-button, Flush-mount VoIP Emergency Telephone, Stainless-steel

10.3.1 Description

The Single-button Flush-mount VoIP Emergency Telephone described in this section shall be designed for flush mounting on any flat surface, in a suitable tower, or in a suitable enclosure that allows surface mounting and shall be suitable for indoor or outdoor use. It shall comply with Sections 1.0.0 (Scope and Intent) and 8.0.0 (Equipment Operation) of this specification. The Emergency Telephone shall be designed for single push button activation with handsfree communications following initial telephone line connection.

The Single-button Flush-mount VoIP Emergency Telephone shall include a stainless-steel front panel that attaches to a painted, steel back box with security screws to prevent unplanned access to the telephone’s electronics.

10.3.2 Performance Specification

In addition to the standard Equipment Operation requirements identified in section 8.0 of this specification, the Single-button Flush-mount VoIP Emergency Telephone shall meet the following performance and physical specifications:

**Electrical**

Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …….Power-over-Ethernet, 802.3af compliant (via

 RJ45), or External power supply 24-53 V dc, 200 mA,

 a separate, isolated supply must be provided for each

 telephone.

Power consumption . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 Watts, max.

Microphone . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …Electret

**Inputs**

Push Buttons (as applicable) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Emergency Autodial

**Outputs**

Programmable Output (2) Contact Rating. . . . . . . . . . . . . . . . 5 A @ 250V ac/30 V dc (resistive load)

**Controls**

External (as applicable). . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . .. . . . Push button inputs

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Speaker volume, mic bias, reset switch

**Indicators**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Call received L.E.D.

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Audio output . . . . . . . . . . . . . . . . . . . . . . . . . . . . …… 90 dB SPL or greater @ 0.5.meters (@ 1KHz)

Call Diversion . . . . . . . . . . . . . . . . . . …. . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs

 (max 20 entries) with comfort tones,

 diverts to next in list if the call fails

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . .Flush-mounting in appropriate vessel or surface cut-out,

Electrical Connections . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . RJ45 and Terminal block

Front Panel . . . . . . . . . ………………………………….. . . . ………14-gauge, brushed stainless steel;

 12.0 (304.8) H x 10.0 (254) W; inches (mm)

Back Box (depth from mounting surface). . . . . . . . . . . . . . . . 16-gauge CRS with black polyurethane

 finish (2.38 inches / 60.5 mm D)

Cut-out dimensions……………….……………….………….10.13 (257) H x 7.63 (194) W; inches (mm)

Net Weight . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . ………. . . . . . . . . . . . . . . . .. . .. 7.2 lb (3.3 kg)

# Environmental

Temperature Range

 Operating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . -4º F to + 140º F (-20º C to +60º C)

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . -40º C to +70º C

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . ……………… . . . . . . . . . . . . . . . . Type 3R

Humidity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Up to 95% non-condensing

Printed Circuit Board. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

Compliance to Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . FCC CRF 47 Part 15

Safety of Information Technology Equipment………………………….………..………….UL/CSA 60950

Enclosures for Electrical Equipment…………………………………………………………………Type 3R

10.3.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Single-button Flush-mount VoIP Emergency Telephone:

**L.E.D. Strobes,**  as referenced in section 12.1.0.

**Strobe Mounting Assembly** shall be offered for pole or wall mounting the L.E.D. Strobe

**Security Screwdriver** shall be offered to permit installation, access, and removal of the Emergency and Assistance telephones

**Free-standing Tower,**  as referenced in section 12.2.0

**Elite Wall-mount Communication Station,**  as referenced in section 12.3.0

**Economy Wall-mount Communication Station**, as referenced in section 12.4.0

**Surface Mount Enclosure** options, as referenced in section 12.5.0

**Pole Mounting Kit** shall be designed to allow mounting of the surface mount enclosure to a pole with a maximum diameter of 4-inches.

**Telephone Management Application Software,**  as referenced in section 12.6.0

10.3.4 Equipment Manufacturer and Model Numbers

The Single-button Flush-mount VoIP Emergency Telephone shall be GAI-Tronics RED ALERT® model number **397-710.** Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **540-001** 120 V ac, L.E.D. Strobe Assembly with constant-on feature
* **541-001** 12-24 V dc,Low Voltage Strobe with programmable constant-on feature
* **4115A** Strobe Assembly Mounting Kit
* **233-001** Security Screwdriver
* **234** Free-standing Tower, including clear lens assembly and panel light assembly
* **234WM-202** Elite Wall-mount Communication Station, including panel light assembl**y**
* **240WM-00x** Economy Wall-mount Communication Station, included panel light assembly and blue L.E.D. strobe
* **241WM-00x** Economy Wall-mount Communication Station, including blue L.E.D. strobe
* **231-003** Pole-mount Kit for Economy Wall-mount Communication Stations
* **236-001xx** Surface-mount Enclosure (xx= RD red, BK black, YL yellow) to provide surface mounting of a flush-mount emergency telephone
* **238-001** Surface Mount Enclosure (brushed stainless steel) to provide surface mounting of a flush-mount emergency telephone
* **231-002** Pole Mounting Kit for surface mount enclosure
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephone

10.4.0 Dual-button Flush-Mount VoIP Emergency Telephone, Stainless Steel

10.4.1 Description

The Dual-button Flush-Mount Emergency VoIP Telephone described in this section shall be designed for flush mounting on any flat surface, in a suitable tower, or in a suitable enclosure that allows surface mounting and shall be suitable for indoor or outdoor use. It shall comply with Sections 1.0.0 (Scope and Intent) and 8.0.0 (Equipment Operation) of this specification. The Emergency Telephone shall be designed for dual, single push button autodial activation. One push button shall be intended for Emergency operation and the other push button shall be intended for Assistance (non-emergency) operation. Both operations shall provide the user handsfree communications following initial telephone line connection.

The Emergency Telephone shall include a stainless-steel front panel that attaches to a painted, steel back box with security screws to prevent unplanned access to the telephone’s electronics.

10.4.2 Performance Specification

The Dual-button, Flush-Mount VoIP Emergency Telephone shall meet the following performance and physical specifications:

**Electrical**

Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …….Power-over-Ethernet, 802.3af compliant (via

 RJ45), or External power supply 24-53 V dc, 200 mA,

 a separate, isolated supply must be provided for each

 telephone.

Power consumption . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 Watts, max.

Microphone . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …Electret

**Inputs**

Push Buttons (as applicable) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Emergency Autodial

**Outputs**

Programmable Output (2) Contact Rating. . . . . . . . . . . . . . . . 5 A @ 250V ac/30 V dc (resistive load)

**Controls**

External (as applicable). . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . .. . . . Push button inputs

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Speaker volume, mic bias, reset switch

**Indicators**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Call received L.E.D.

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Audio output . . . . . . . . . . . . . . . . . . . . . . . . . . . . …… 90 dB SPL or greater @ 0.5.meters (@ 1KHz)

Call Diversion . . . . . . . . . . . . . . . . . . …. . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs

 (max 20 entries) with comfort tones,

 diverts to next in list if the call fails

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . .Flush-mounting in appropriate vessel or surface cut-out,

Electrical Connections . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . RJ45 and Terminal block

Front Panel . . . . . . . . . ………………………………….. . . . ………14-gauge, brushed stainless steel;

 12.0 (304.8) H x 10.0 (254) W; inches (mm)

Back Box (depth from mounting surface). . . . . . . . . . . . . . . . 16-gauge CRS with black polyurethane

 finish (2.38 inches / 60.5 mm D)

Cut-out dimensions……………….……………….………….10.13 (257) H x 7.63 (194) W; inches (mm)

Net Weight . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . ………. . . . . . . . . . . . . . .. . .. 7.2 lbs. (3.3 kg)

# Environmental

Temperature Range

 Operating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . -4º F to + 140º F (-20º C to +60º C)

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . -40º C to +70º C

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . ……………… . . . . . . . . . . . . . . . . Type 3R

Humidity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Up to 95% non-condensing

Printed Circuit Board. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

Compliance to Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . FCC CRF 47 Part 15

Safety of Information Technology Equipment………………………….………..………….UL/CSA 60950

Enclosures for Electrical Equipment…………………………………………………………………Type 3R

10.4.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Dual-button, Flush-Mount VoIP Emergency Telephone:

**L.E.D. Strobes,**  as referenced in section 12.1.0.

**Strobe Mounting Assembly** shall be offered for pole or wall mounting the L.E.D. Strobe.

**Security Screwdriver** shall be offered to permit installation, access, and removal of the Emergency and Assistance telephones.

**Free-standing Tower,**  as referenced in section 12.2.0

**Elite Wall-mount Communication Station,**  as referenced in section 12.3.0

**Economy Wall-mount Communication Station**, as referenced in section 12.4.0

**Surface Mount Enclosure** options, as referenced in section 12.5.0

**Pole Mounting Kit** shall be designed to allow mounting of the Surface Mount Enclosure to a pole with a maximum diameter of 4-inches

**Telephone Management Application Software,**  as referenced in section 12.6.0.

10.4.4 Equipment Manufacturer and Model Numbers

The Dual-button, Flush-Mount VoIP Emergency Telephone shall be GAI-Tronics RED ALERT® model number **397-711.** Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **540-001** 120 V ac, L.E.D. Strobe Assembly with constant-on feature
* **541-001** 12-24 V dc,Low Voltage Strobe with programmable constant-on feature
* **4115A** Strobe Assembly Mounting Kit
* **233-001** Security Screwdriver
* **234** Free-standing Tower, including clear lens assembly and panel light assembly
* **234WM-202** Elite Wall-mount Communication Station, including panel light assembl**y**
* **240WM-00x** Economy Wall-mount Communication Station, included panel light assembly and blue L.E.D. strobe
* **241WM-00x** Economy Wall-mount Communication Station, including blue L.E.D. strobe
* **231-003** Pole-mount Kit for Economy Wall-mount Communication Stations
* **236-001xx** Surface-mount Enclosure (xx= RD red, BK black, YL yellow) to provide surface mounting of a flush-mount emergency telephone
* **238-001** Surface Mount Enclosure (brushed stainless steel) to provide surface mounting of a flush-mount emergency telephone
* **231-002** Pole Mounting Kit for surface mount enclosure
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephone

10.5.0 Single-button Autodial with Call push button and keypad, Flush-mount VoIP Emergency Telephone, Stainless Steel

10.5.1 Description

The Single-button Autodial with Call push button and keypad, Flush-mount VoIP Emergency Telephone described in this section shall be designed for flush mounting on any flat surface, in a suitable tower, or in a suitable enclosure that allows surface mounting and shall be designed for indoor or outdoor use. It shall comply with Sections 1.0.0 (Scope and Intent) and 8.0.0 (Equipment Operation) of this specification. The Emergency Telephone shall be designed for single push button emergency activation with handsfree communications following initial telephone line connection. In addition to the single button activation, the emergency telephone shall include a Braille keypad and separate “call” pushbutton for local calling or building access. Pressing the call pushbutton a second time shall enable the caller to place additional calls without disengaging the telephone line.

10.5.2 Performance Specification

The Single-button Autodial with Call push button and keypad, Flush-mount VoIP Emergency Telephone shall meet the following performance and physical specifications:

**Electrical**

Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …….Power-over-Ethernet, 802.3af compliant (via

 RJ45), or External power supply 24-53 V dc, 200 mA,

 a separate, isolated supply must be provided for each

 telephone.

Power consumption . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 Watts, max.

Microphone . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …Electret

**Inputs**

Keypad . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3x4 matrix

Push Buttons (as applicable) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Call, Emergency Autodial

**Outputs**

Programmable Output (2) Contact Rating. . . . . . . . . . . . . . . . 5 A @ 250V ac/30 V dc (resistive load)

**Controls**

External (as applicable). . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . Keypad, push-button inputs

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Speaker volume, mic bias, reset switch

**Indicators**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Call received L.E.D.

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Audio output . . . . . . . . . . . . . . . . . . . . . . . . . . . . …… 90 dB SPL or greater @ 0.5.meters (@ 1KHz)

Call Diversion . . . . . . . . . . . . . . . . . . …. . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs

 (max 20 entries) with comfort tones,

 diverts to next in list if the call fails

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Direct surface/wall mounting (pole mounting with kit)

Conduit Entry . . . . . . . . . . . . . . . . . . . . . . . . . . …. . . .. . 3/4" NPT female entry (aluminum encl. only)

Electrical Connections . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . RJ45 and Terminal block

Front Panel . . . . . . . . . ………………………………….. . . . ………14-gauge, brushed stainless steel;

 12.0 (304.8) H x 10.0 (254) W; inches (mm)

Back Box (depth from mounting surface). . . . . . . . . . . . . . . . 16-gauge CRS with black polyurethane

 finish (2.38 inches / 60.5 mm D)

Cut-out dimensions……………….……………….………….10.13 (257) H x 7.63 (194) W; inches (mm)

Net Weight . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . ………. . . . . . . . . . . . . . . . .. . .. 7.2 lb (3.3 kg)

 Keypad (if included). . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . Braille, chrome plated zinc

# Environmental

Temperature Range

 Operating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . -4º F to + 140º F (-20º C to +60º C)

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . -40º C to +70º C

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . ……………… . . . . . . . . . . . . . . . . Type 3R

Humidity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Up to 95% non-condensing

Printed Circuit Board. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

Compliance to Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . FCC CRF 47 Part 15

Safety of Information Technology Equipment………………………….………..………….UL/CSA 60950

Enclosures for Electrical Equipment…………………………………………………………………Type 3R

10.5.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Single-button Autodial with Call push button and keypad, Flush-mount VoIP Emergency Telephone:

**L.E.D. Strobes,**  as referenced in section 12.1.0.

**Strobe Mounting Assembly** shall be offered for pole or wall mounting the L.E.D. Strobe

**Security Screwdriver** shall be offered to permit installation, access, and removal of the Emergency and Assistance telephones

**Free-standing Tower,**  as referenced in section 12.2.0

**Elite Wall-mount Communication Station,**  as referenced in section 12.3.0

**Economy Wall-mount Communication Station**, as referenced in section 12.4.0

**Surface Mount Enclosure** options, as referenced in section 12.5.0

**Pole Mounting Kit** shall be designed to allow mounting of the Surface Mount Enclosure to a pole with a maximum diameter of 4-inches

**Telephone Management Application Software,**  as referenced in section 12.6.0

10.5.4 Equipment Manufacturer and Model Numbers

The Single-button Autodial with Call push button and keypad, Flush-mount VoIP Emergency Telephone shall be GAI-Tronics RED ALERT® model number **398-712**. Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **540-001** 120 V ac, L.E.D. Strobe Assembly with constant-on feature
* **541-001** 12-24 V dc,Low Voltage Strobe with programmable constant-on feature
* **4115A** Strobe Assembly Mounting Kit
* **233-001** Security Screwdriver
* **234** Free-standing Tower, including clear lens assembly and panel light assembly
* **234WM-202** Elite Wall-mount Communication Station, including panel light assembl**y**
* **240WM-00x** Economy Wall-mount Communication Station, included panel light assembly and blue L.E.D. strobe
* **241WM-00x** Economy Wall-mount Communication Station, including blue L.E.D. strobe
* **231-003** Pole-mount Kit for Economy Wall-mount Communication Stations
* **236-001xx** Surface-mount Enclosure (xx= RD red, BK black, YL yellow) to provide surface mounting of a flush-mount emergency telephone
* **238-001** Surface Mount Enclosure (brushed stainless steel) to provide surface mounting of a flush-mount emergency telephone
* **231-002** Pole Mounting Kit for surface mount enclosure
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephone

10.6.0 Call Push Button and Keypad, Flush-mount VoIP Access Telephone, Stainless Steel

10.6.1 Description

The Call Push Button and Keypad, Flush-mount VoIP Access Telephone described in this section shall be designed for flush mounting on any flat surface, in a suitable tower, or in a suitable enclosure that allows surface mounting and shall be designed for indoor or outdoor use. It shall comply with Sections 1.0.0 (Scope and Intent) and 8.0.0 (Equipment Operation) of this specification. This Access Telephone shall be designed for handsfree communications following initial telephone line connection. After initial activation and line use, pressing the call pushbutton a second time shall enable the caller to place additional calls without disengaging the telephone line.

The VoIP Access Telephone shall include a stainless-steel front panel that attaches to painted, steel back box with security screws to prevent unplanned access to the telephone’s electronics.

10.6.2 Performance Specification

The Call Push Button and Keypad, Flush-mount VoIP Access Telephone shall meet the following performance and physical specifications:

**Electrical**

Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …….Power-over-Ethernet, 802.3af compliant (via

 RJ45), or External power supply 24-53 V dc, 200 mA,

 a separate, isolated supply must be provided for each

 telephone.

Power consumption . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 Watts, max.

Microphone . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …Electret

**Inputs**

Keypad . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3x4 matrix

Push Buttons. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Call

**Outputs**

Programmable Output (2) Contact Rating. . . . . . . . . . . . . . . . 5 A @ 250V ac/30 V dc (resistive load)

**Controls**

External (as applicable). . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . Keypad, push-button inputs

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Speaker volume, mic bias, reset switch

**Indicators**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Call received L.E.D.

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Audio output . . . . . . . . . . . . . . . . . . . . . . . . . . . . …… 90 dB SPL or greater @ 0.5.meters (@ 1KHz)

Call Diversion . . . . . . . . . . . . . . . . . . …. . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs

 (max 20 entries) with comfort tones,

 diverts to next in list if the call fails

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Direct surface/wall mounting (pole mounting with kit)

Conduit Entry . . . . . . . . . . . . . . . . . . . . . . . . . . …. . . .. . 3/4" NPT female entry (aluminum encl. only)

Electrical Connections . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . RJ45 and Terminal block

Front Panel . . . . . . . . . ………………………………….. . . . ………14-gauge, brushed stainless steel;

 12.0 (304.8) H x 10.0 (254) W; inches (mm)

Back Box (depth from mounting surface). . . . . . . . . . . . . . . . 16-gauge CRS with black polyurethane

 finish (2.38 inches / 60.5 mm D)

Cut-out dimensions……………….……………….………….10.13 (257) H x 7.63 (194) W; inches (mm)

Net Weight . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . ………. . . . . . . . . . . . . . . . .. . .. 7.2 lb (3.3 kg)

 Keypad (if included). . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . Braille, chrome plated zinc

# Environmental

Temperature Range

 Operating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . -4º F to + 140º F (-20º C to +60º C)

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . -40º C to +70º C

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . ……………… . . . . . . . . . . . . . . . . Type 3R

Humidity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Up to 95% non-condensing

Printed Circuit Board. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

Compliance to Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . FCC CRF 47 Part 15

Safety of Information Technology Equipment………………………….………..………….UL/CSA 60950

Enclosures for Electrical Equipment…………………………………………………………………Type 3R

10.6.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Call Push Button and Keypad, Flush-mount VoIP Access Telephone:

**L.E.D. Strobes,**  as referenced in section 12.1.0.

**Strobe Mounting Assembly** shall be offered for pole or wall mounting the L.E.D. Strobe

**Security Screwdriver** shall be offered to permit installation, access, and removal of the Emergency and Assistance telephones

**Free-standing Tower,**  as referenced in section 12.2.0

**Elite Wall-mount Communication Station,**  as referenced in section 12.3.0

**Economy Wall-mount Communication Station**, as referenced in section 12.4.0

**Surface Mount Enclosure** options, as referenced in section 12.5.0

**Pole Mounting Kit** shall be designed to allow mounting of the Surface Mount Enclosure to a pole with a maximum diameter of 4-inches

**Telephone Management Application Software,**  as referenced in section 12.6.0

10.6.4 Equipment Manufacturer and Model Numbers

The Call Push Button and Keypad, Flush-mount VoIP Access Telephone shall be GAI-Tronics RED ALERT® model number **398-711**. Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **540-001** 120 V ac, L.E.D. Strobe Assembly with constant-on feature
* **541-001** 12-24 V dc,Low Voltage Strobe with programmable constant-on feature
* **4115A** Strobe Assembly Mounting Kit
* **233-001** Security Screwdriver
* **234** Free-standing Tower, including clear lens assembly and panel light assembly
* **234WM-202** Elite Wall-mount Communication Station, including panel light assembl**y**
* **240WM-00x** Economy Wall-mount Communication Station, included panel light assembly and blue L.E.D. strobe
* **241WM-00x** Economy Wall-mount Communication Station, including blue L.E.D. strobe
* **231-003** Pole-mount Kit for Economy Wall-mount Communication Stations
* **236-001xx** Surface-mount Enclosure (xx= RD red, BK black, YL yellow) to provide surface mounting of a flush-mount emergency telephone
* **238-001** Surface Mount Enclosure (brushed stainless steel) to provide surface mounting of a flush-mount emergency telephone
* **231-002** Pole Mounting Kit for surface mount enclosure
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephone

**11.0.0 WiFi Handsfree Emergency Telephones**

11.1.0 Single-button Autodial, WiFi Emergency Telephone, Surface-mount

11.1.1 Description

The Single-button Autodial, Emergency WiFi Telephone described in this section shall be designed for surface mounting on any flat surface or for mounting to a pole, with the appropriate mounting hardware, and shall be designed for indoor or outdoor use. It shall comply with Sections 1.0.0 (Scope and Intent) and 8.0.0 (Equipment Operation) of this specification. The Emergency Telephone shall be designed for single push button activation with handsfree communications following initial telephone line connection.

11.1.2 Performance Specification

The Single-button WiFi Emergency Telephone shall meet the following performance and physical specifications:

**Electrical**

Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……... External power supply 24-53 V dc, 200 mA,

 (a separate, isolated supply must be provided for each

 Telephone)

Power consumption . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 Watts, max.

Microphone . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …Electret

Transmit Output Power……………………………………………………14 dBm + 11.5 dBm / - 1.0 dBm

Maximum Receive Level………………………………………..……………….- 10 dBm (with PER < 8%)

Frequency………………………………………...…………………2.412 – 2.484 GHz (up to 14 channels

Range………………………………………………………Tested for compliance with 802.11 g standard

**Inputs**

Keypad (if applicable) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3x4 matrix

Push Buttons (as applicable) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Call, Emergency Autodial

Configurable inputs . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 4

**Outputs**

Programmable Output (2) Contact Rating. . . . . . . . . . . . . . . . 5 A @ 250V ac/30 V dc (resistive load)

**Controls**

External (as applicable). . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . Keypad, push-button inputs

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Speaker volume, mic bias, reset switch

**Indicators**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Call received L.E.D.

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Audio output . . . . . . . . . . . . . . . . . . . . . . . . . . . . …… 90 dB SPL or greater @ 0.5.meters (@ 1KHz)

Call Diversion . . . . . . . . . . . . . . . . . . …. . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs

 (max 20 entries) with comfort tones,

 diverts to next in list if the call fails

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Direct surface/wall mounting (pole mounting with kit)

Conduit Entry . . . . . . . . . . . . . . . . . . . . . . . . . . …. . . .. . 3/4" NPT female entry (aluminum encl. only)

Electrical Connections . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . RJ45 and Terminal block

Housing Material . . . . . . . . . . . . . ……….. . . . (Safety Yellow) Cast Aluminum or Engineered Plastic

Dimensions . . . . . . . . . . . . . . . . . . . . 9.52 (241.8) H x 8.02 (203.7) W x 8.12 (206.2) D; inches (mm)

Net Weight . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Cast aluminum @ 8.5 lbs. (3.86 kg)

 Engineered Plastic at 4.0 lbs. (1.81 kg)

# Environmental

Temperature Range

 Operating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . -4º F to + 140º F (-20º C to +60º C)

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . -40º C to +70º C

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . ……………… . . . . . . . . . . . . . . . . Type 3R

Humidity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Up to 95% non-condensing

Printed Circuit Board. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

Compliance to Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . FCC CRF 47 Part 15

Safety of Information Technology Equipment………………………….………..………….UL/CSA 60950

Enclosures for Electrical Equipment…………………………………………………………………Type 3R

11.1.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Single-button WiFi Emergency Telephone, Surface-mount.

**Pole Mounting Kit** shall be designed to allow mounting of the emergency and assistance telephones to a pole with a maximum diameter of 4-inches.

**L.E.D. Strobes,**  as referenced in section 12.1.0.

**Strobe Mounting Assembly** shall be offered for pole or wall mounting the L.E.D. Strobe.

**Security Screwdriver** shall be offered to permit installation, access, and removal of the Emergency and Assistance telephones.

**Telephone Management Application Software** as referenced in section 12.6.0

11.1.4 Equipment Manufacturer and Model Numbers

The Single-button WiFi Emergency Telephones, Surface-mount shall be GAI-Tronics RED ALERT® model numbers specified as follows:

* **393-810A** Single-button WiFi Emergency Telephone, single-button emergency (“HELP”) autodial operation, engineered plastic enclosure, safety yellow
* **393AL-810A** Single-button WiFi Emergency Telephone, single-button emergency (“HELP”) autodial operation, aluminum enclosure, safety yellow epoxy paint

Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **231-002** Pole Mounting Kit
* **540-001** L.E.D. Strobe, 120 V ac
* **541-001** L.E.D. Strobe, 12-24 V dc
* **4115A** Strobe Mounting Kit
* **233-001** Tamper-resistant Screwdriver
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephones
	1. Single-button Autodial with Call Button and Keypad, WiFi Emergency Telephone, Surface- mount

11.2.1 Description

The Single-button Autodial with Call Button and Keypad, WiFi Emergency Telephone, Surface-mount described in this section shall be designed for surface mounting on any flat surface or for mounting to a pole, with the appropriate mounting hardware, and shall be designed for indoor or outdoor use. It shall comply with Sections 1.0.0 (Scope and Intent) and 8.0.0 (Equipment Operation) of this specification. The Emergency Telephone shall be designed for single push button activation with handsfree communications following initial telephone line connection. In addition to the single button activation, the emergency telephone shall include a Braille keypad and separate “call” pushbutton for local calling or building access. Pressing the call pushbutton a second time shall enable the caller to place additional calls without disengaging the telephone line.

11.2.2 Performance Specification

In addition to the standard Equipment Operation requirements identified in section 8.0 of this specification, the Single-button Autodial with Call Button and Keypad, WiFi Emergency Telephone shall meet the following performance and physical specifications:

**Electrical**

Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……... External power supply 24-53 V dc, 200 mA,

 (a separate, isolated supply must be provided for each

 Telephone)

Power consumption . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 Watts, max.

Microphone . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …Electret

**Inputs**

Keypad . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3x4 matrix

Push Buttons (as applicable) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Call, Emergency Autodial

**Outputs**

Programmable Output (2) Contact Rating. . . . . . . . . . . . . . . . 5 A @ 250V ac/30 V dc (resistive load)

**Controls**

External (as applicable). . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . Keypad, push-button inputs

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Speaker volume, mic bias, reset switch

**Indicators**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Call received L.E.D.

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Audio output . . . . . . . . . . . . . . . . . . . . . . . . . . . . …… 90 dB SPL or greater @ 0.5.meters (@ 1KHz)

Call Diversion . . . . . . . . . . . . . . . . . . …. . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs

 (max 20 entries) with comfort tones,

 diverts to next in list if the call fails

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Direct surface/wall mounting (pole mounting with kit)

Conduit Entry . . . . . . . . . . . . . . . . . . . . . . . . . . …. . . .. . 3/4" NPT female entry (aluminum encl. only)

Electrical Connections . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . RJ45 and Terminal block

Housing Material . . . . . . . . . . . . . ……….. . . . . . . . . . . . . . .. . . . ... . (Safety Yellow) Cast Aluminum

Dimensions . . . . . . . . . . . . . . . . . . . . 9.52 (241.8) H x 8.02 (203.7) W x 8.12 (206.2) D; inches (mm)

Net Weight . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Cast aluminum @ 8.5 lbs. (3.86 kg)

Keypad . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . Braille, chrome plated zinc

# Environmental

Temperature Range

 Operating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . -4º F to + 140º F (-20º C to +60º C)

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . -40º C to +70º C

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . ……………… . . . . . . . . . . . . . . . . Type 3R

Humidity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Up to 95% non-condensing

Printed Circuit Board. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

Compliance to Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . FCC CRF 47 Part 15

Safety of Information Technology Equipment………………………….………..………….UL/CSA 60950

Enclosures for Electrical Equipment…………………………………………………………………Type 3R

11.2.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Single-button Autodial with Call Button and Keypad, WiFi Emergency Telephone:

**Pole Mounting Kit** shall be designed to allow mounting of the emergency and assistance telephones to a pole with a maximum diameter of 4-inches.

**L.E.D. Strobes,**  as referenced in section 12.1.0.

**Strobe Mounting Assembly** shall be offered for pole or wall mounting the L.E.D. Strobe.

**Security Screwdriver** shall be offered to permit installation, access, and removal of the Emergency and Assistance telephones.

**Telephone Management Application Software** as referenced in section 12.6.0

11.2.4 Equipment Manufacturer and Model Numbers

The Single-button Autodial with Call Push Button and Keypad, Surface-mount WiFi Emergency Telephone shall be GAI-Tronics RED ALERT® model number **394AL-812A.** Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **231-002** Pole Mounting Kit
* **540-001** L.E.D. Strobe, 120 V ac
* **541-001** L.E.D. Strobe, 12-24 V dc
* **4115A** Strobe Mounting Kit
* **233-001** Tamper-resistant Screwdriver
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephones

11.3.0 Single-button Flush-mount WiFi Emergency Telephone, Stainless-steel

11.3.1 Description

The Single-button Flush-mount WiFi Emergency Telephone described in this section shall be designed for flush mounting on any flat surface, in a suitable tower, or in a suitable enclosure that allows surface mounting and shall be suitable for indoor or outdoor use. It shall comply with Sections 1.0.0 (Scope and Intent) and 8.0.0 (Equipment Operation) of this specification.

The Single-button Flush-mount WiFi Emergency Telephone shall include a stainless-steel front panel that attaches to a painted, steel back box with security screws to prevent unplanned access to the telephone’s electronics.

11.3.2 Performance Specification

In addition to the standard Equipment Operation requirements identified in section 8.0 of this specification, the Single-button Flush-mount WiFi Emergency Telephone shall meet the following performance and physical specifications:

**Electrical**

Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……... External power supply 24-53 V dc, 200 mA,

 (a separate, isolated supply must be provided for each

 Telephone)

Power consumption . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 Watts, max.

Microphone . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …Electret

**Inputs**

Push Buttons (as applicable) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Emergency Autodial

**Outputs**

Programmable Output (2) Contact Rating. . . . . . . . . . . . . . . . 5 A @ 250V ac/30 V dc (resistive load)

**Controls**

External (as applicable). . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . .. . . . Push button inputs

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Speaker volume, mic bias, reset switch

**Indicators**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Call received L.E.D.

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Audio output . . . . . . . . . . . . . . . . . . . . . . . . . . . . …… 90 dB SPL or greater @ 0.5.meters (@ 1KHz)

Call Diversion . . . . . . . . . . . . . . . . . . …. . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs

 (max 20 entries) with comfort tones,

 diverts to next in list if the call fails

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . .Flush-mounting in appropriate vessel or surface cut-out,

Electrical Connections . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . RJ45 and Terminal block

Front Panel . . . . . . . . . ………………………………….. . . . ………14-gauge, brushed stainless steel;

 12.0 (304.8) H x 10.0 (254) W; inches (mm)

Back Box (depth from mounting surface). . . . . . . . . . . . . . . . 16-gauge CRS with black polyurethane

 finish (2.38 inches / 60.5 mm D)

Cut-out dimensions……………….……………….………….10.13 (257) H x 7.63 (194) W; inches (mm)

Net Weight . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . ………. . . . . . . . . . . . . . . . .. . .. 7.2 lb (3.3 kg)

# Environmental

Temperature Range

 Operating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . -4º F to + 140º F (-20º C to +60º C)

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . -40º C to +70º C

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . ……………… . . . . . . . . . . . . . . . . Type 3R

Humidity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Up to 95% non-condensing

Printed Circuit Board. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

Compliance to Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . FCC CRF 47 Part 15

Safety of Information Technology Equipment………………………….………..………….UL/CSA 60950

Enclosures for Electrical Equipment…………………………………………………………………Type 3R

11.3.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Single-button Flush-mount WiFi Emergency Telephone:

**L.E.D. Strobes,**  as referenced in section 12.1.0.

**Strobe Mounting Assembly** shall be offered for pole or wall mounting the L.E.D. Strobe

**Security Screwdriver** shall be offered to permit installation, access, and removal of the Emergency and Assistance telephones

**Free-standing Tower,**  as referenced in section 12.2.0

**Telephone Management Application Software,**  as referenced in section 12.6.0

11.3.4 Equipment Manufacturer and Model Numbers

The Single-button Flush-mount WiFi Emergency Telephone shall be GAI-Tronics RED ALERT® model number **397-810A.** Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **540-001** 120 V ac, L.E.D. Strobe Assembly with constant-on feature
* **541-001** 12-24 V dc,Low Voltage Strobe with programmable constant-on feature
* **4115A** Strobe Assembly Mounting Kit
* **233-001** Security Screwdriver
* **234-800** WiFi Free-standing Tower, including clear lens/antenna assembly and panel light assembly
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephone

11.4.0 Dual-button Flush-Mount WiFi Emergency Telephone, Stainless Steel

11.4.1 Description

The Dual-button Flush-Mount WiFi Emergency Telephone described in this section shall be designed for flush mounting on any flat surface, in a suitable tower, or in a suitable enclosure that allows surface mounting and shall be suitable for indoor or outdoor use. It shall comply with Sections 1.0.0 (Scope and Intent) and 8.0.0 (Equipment Operation) of this specification. The Emergency Telephone shall be designed for dual, single push button autodial activation. One push button shall be intended for Emergency operation and the other push button shall be intended for Assistance (non-emergency) operation. Both operations shall provide the user handsfree communications following initial telephone line connection.

The Dual-button Flush-Mount WiFi Emergency Telephone shall include a stainless-steel front panel that attaches to a painted, steel back box with security screws to prevent unplanned access to the telephone’s electronics.

11.4.2 Performance Specification

The Dual-button Flush-Mount WiFi Emergency Telephone shall meet the following performance and physical specifications:

**Electrical**

Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……... External power supply 24-53 V dc, 200 mA,

 (a separate, isolated supply must be provided for each

 Telephone)

Power consumption . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 Watts, max.

Microphone . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …Electret

**Inputs**

Push Buttons (as applicable) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Emergency Autodial

**Outputs**

Programmable Output (2) Contact Rating. . . . . . . . . . . . . . . . 5 A @ 250V ac/30 V dc (resistive load)

**Controls**

External (as applicable). . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . .. . . . Push button inputs

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Speaker volume, mic bias, reset switch

**Indicators**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Call received L.E.D.

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Audio output . . . . . . . . . . . . . . . . . . . . . . . . . . . . …… 90 dB SPL or greater @ 0.5.meters (@ 1KHz)

Call Diversion . . . . . . . . . . . . . . . . . . …. . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs

 (max 20 entries) with comfort tones,

 diverts to next in list if the call fails

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . .Flush-mounting in appropriate vessel or surface cut-out,

Electrical Connections . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . RJ45 and Terminal block

Front Panel . . . . . . . . . ………………………………….. . . . ………14-gauge, brushed stainless steel;

 12.0 (304.8) H x 10.0 (254) W; inches (mm)

Back Box (depth from mounting surface). . . . . . . . . . . . . . . . 16-gauge CRS with black polyurethane

 finish (2.38 inches / 60.5 mm D)

Cut-out dimensions……………….……………….………….10.13 (257) H x 7.63 (194) W; inches (mm)

Net Weight . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . ………. . . . . . . . . . . . . . .. . .. 7.2 lbs. (3.3 kg)

# Environmental

Temperature Range

 Operating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . -4º F to + 140º F (-20º C to +60º C)

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . -40º C to +70º C

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . ……………… . . . . . . . . . . . . . . . . Type 3R

Humidity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Up to 95% non-condensing

Printed Circuit Board. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

Compliance to Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . FCC CRF 47 Part 15

Safety of Information Technology Equipment………………………….………..………….UL/CSA 60950

Enclosures for Electrical Equipment…………………………………………………………………Type 3R

11.4.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Dual-button Flush-Mount WiFi Emergency Telephone:

**L.E.D. Strobes,**  as referenced in section 12.1.0.

**Strobe Mounting Assembly** shall be offered for pole or wall mounting the L.E.D. Strobe.

**Security Screwdriver** shall be offered to permit installation, access, and removal of the Emergency and Assistance telephones.

**Free-standing Tower,**  as referenced in section 12.2.0

**Telephone Management Application Software,**  as referenced in section 12.6.0.

11.4.4 Equipment Manufacturer and Model Numbers

The Dual-button Flush-Mount WiFi Emergency Telephone shall be GAI-Tronics RED ALERT® model number **397-811A.** Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **540-001** 120 V ac, L.E.D. Strobe Assembly with constant-on feature
* **541-001** 12-24 V dc,Low Voltage Strobe with programmable constant-on feature
* **4115A** Strobe Assembly Mounting Kit
* **233-001** Security Screwdriver
* **234-800** WiFi Free-standing Tower, including clear lens/antenna assembly and panel light assembly
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephone

11.5.0 Single-button Autodial with Call Button and Keypad, Flush-mount WiFi Emergency Telephone, Stainless Steel

11.5.1 Description

The Single-button Autodial with Call Button and Keypad, Flush-mount WiFi Emergency Telephone described in this section shall be designed for flush mounting on any flat surface, in a suitable tower, or in a suitable enclosure that allows surface mounting and shall be designed for indoor or outdoor use. It shall comply with Sections 1.0.0 (Scope and Intent) and 8.0.0 (Equipment Operation) of this specification. The Emergency Telephone shall be designed for single push button emergency activation with handsfree communications following initial telephone line connection. In addition to the single button activation, the emergency telephone shall include a Braille keypad and separate “call” pushbutton for local calling or building access. Pressing the call pushbutton a second time shall enable the caller to place additional calls without disengaging the telephone line.

The Single-button Autodial with Call Button and Keypad, Flush-mount WiFi Emergency Telephone shall include a stainless-steel front panel that attaches to a painted, steel back box with security screws to prevent unplanned access to the telephone’s electronics.

11.5.2 Performance Specification

The Single-button Autodial with Call Button and Keypad, Flush-mount WiFi Emergency Telephone shall meet the following performance and physical specifications:

**Electrical**

Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……... External power supply 24-53 V dc, 200 mA,

 (a separate, isolated supply must be provided for each

 Telephone)

Power consumption . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 Watts, max.

Microphone . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …Electret

**Inputs**

Keypad . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3x4 matrix

Push Buttons (as applicable) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Call, Emergency Autodial

**Outputs**

Programmable Output (2) Contact Rating. . . . . . . . . . . . . . . . 5 A @ 250V ac/30 V dc (resistive load)

**Controls**

External (as applicable). . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . Keypad, push-button inputs

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Speaker volume, mic bias, reset switch

**Indicators**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Call received L.E.D.

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Audio output . . . . . . . . . . . . . . . . . . . . . . . . . . . . …… 90 dB SPL or greater @ 0.5.meters (@ 1KHz)

Call Diversion . . . . . . . . . . . . . . . . . . …. . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs

 (max 20 entries) with comfort tones,

 diverts to next in list if the call fails

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Direct surface/wall mounting (pole mounting with kit)

Conduit Entry . . . . . . . . . . . . . . . . . . . . . . . . . . …. . . .. . 3/4" NPT female entry (aluminum encl. only)

Electrical Connections . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . RJ45 and Terminal block

Front Panel . . . . . . . . . ………………………………….. . . . ………14-gauge, brushed stainless steel;

 12.0 (304.8) H x 10.0 (254) W; inches (mm)

Back Box (depth from mounting surface). . . . . . . . . . . . . . . . 16-gauge CRS with black polyurethane

 finish (2.38 inches / 60.5 mm D)

Cut-out dimensions……………….……………….………….10.13 (257) H x 7.63 (194) W; inches (mm)

Net Weight . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . ………. . . . . . . . . . . . . . . . .. . .. 7.2 lb (3.3 kg)

 Keypad (if included). . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . Braille, chrome plated zinc

# Environmental

Temperature Range

 Operating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . -4º F to + 140º F (-20º C to +60º C)

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . -40º C to +70º C

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . ……………… . . . . . . . . . . . . . . . . Type 3R

Humidity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Up to 95% non-condensing

Printed Circuit Board. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

Compliance to Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . FCC CRF 47 Part 15

Safety of Information Technology Equipment………………………….………..………….UL/CSA 60950

Enclosures for Electrical Equipment…………………………………………………………………Type 3R

11.5.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Single-button Autodial with Call Button and Keypad, Flush-mount WiFi Emergency Telephone:

**L.E.D. Strobes,**  as referenced in section 12.1.0.

**Strobe Mounting Assembly** shall be offered for pole or wall mounting the L.E.D. Strobe

**Security Screwdriver** shall be offered to permit installation, access, and removal of the Emergency and Assistance telephones

**Free-standing Tower,**  as referenced in section 12.2.0

**Telephone Management Application Software,**  as referenced in section 12.6.0

11.5.4 Equipment Manufacturer and Model Numbers

The Single-button Autodial with Call Button and Keypad, Flush-mount WiFi Emergency Telephone shall be GAI-Tronics RED ALERT® model number **398-812A.** Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **540-001** 120 V ac, L.E.D. Strobe Assembly with constant-on feature
* **541-001** 12-24 V dc,Low Voltage Strobe with programmable constant-on feature
* **4115A** Strobe Assembly Mounting Kit
* **233-001** Security Screwdriver
* **234-800** WiFi Free-standing Tower, including clear lens/antenna assembly and panel light assembly
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephone

11.6.0 Call Push Button and Keypad, Flush-mount WiFi Access Telephone, Stainless Steel

11.6.1 Description

The Call Push Button and Keypad, Flush-mount WiFi Access Telephone described in this section shall be designed for flush mounting on any flat surface, in a suitable tower, or in a suitable enclosure that allows surface mounting and shall be designed for indoor or outdoor use. It shall comply with Sections 1.0.0 (Scope and Intent) and 8.0.0 (Equipment Operation) of this specification. This Access Telephone shall be designed for handsfree communications following initial telephone line connection. After initial activation and line use, pressing the call pushbutton a second time shall enable the caller to place additional calls without disengaging the telephone line.

The Call Push Button and Keypad, Flush-mount WiFi Access Telephone shall include a stainless-steel front panel that attaches to painted, steel back box with security screws to prevent unplanned access to the telephone’s electronics.

11.6.2 Performance Specification

The Call Push Button and Keypad, Flush-mount WiFi Access Telephone shall meet the following performance and physical specifications:

**Electrical**

Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……... External power supply 24-53 V dc, 200 mA,

 (a separate, isolated supply must be provided for each

 Telephone)

Power consumption . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 12 Watts, max.

Microphone . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …Electret

**Inputs**

Keypad . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 3x4 matrix

Push Buttons. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Call

**Outputs**

Programmable Output (2) Contact Rating. . . . . . . . . . . . . . . . 5 A @ 250V ac/30 V dc (resistive load)

**Controls**

External (as applicable). . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . Keypad, push-button inputs

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Speaker volume, mic bias, reset switch

**Indicators**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Call received L.E.D.

Internal . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Audio output . . . . . . . . . . . . . . . . . . . . . . . . . . . . …… 90 dB SPL or greater @ 0.5.meters (@ 1KHz)

Call Diversion . . . . . . . . . . . . . . . . . . …. . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs

 (max 20 entries) with comfort tones,

 diverts to next in list if the call fails

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Direct surface/wall mounting (pole mounting with kit)

Conduit Entry . . . . . . . . . . . . . . . . . . . . . . . . . . …. . . .. . 3/4" NPT female entry (aluminum encl. only)

Electrical Connections . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . RJ45 and Terminal block

Front Panel . . . . . . . . . ………………………………….. . . . ………14-gauge, brushed stainless steel;

 12.0 (304.8) H x 10.0 (254) W; inches (mm)

Back Box (depth from mounting surface). . . . . . . . . . . . . . . . 16-gauge CRS with black polyurethane

 finish (2.38 inches / 60.5 mm D)

Cut-out dimensions……………….……………….………….10.13 (257) H x 7.63 (194) W; inches (mm)

Net Weight . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . ………. . . . . . . . . . . . . . . . .. . .. 7.2 lb (3.3 kg)

 Keypad (if included). . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . Braille, chrome plated zinc

# Environmental

Temperature Range

 Operating . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . -4º F to + 140º F (-20º C to +60º C)

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . -40º C to +70º C

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . ……………… . . . . . . . . . . . . . . . . Type 3R

Humidity . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Up to 95% non-condensing

Printed Circuit Board. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

Compliance to Standards . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . FCC CRF 47 Part 15

Safety of Information Technology Equipment………………………….………..………….UL/CSA 60950

Enclosures for Electrical Equipment…………………………………………………………………Type 3R

11.6.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Call Push Button and Keypad, Flush-mount WiFi Access Telephone:

**L.E.D. Strobes,**  as referenced in section 12.1.0.

**Strobe Mounting Assembly** shall be offered for pole or wall mounting the L.E.D. Strobe

**Security Screwdriver** shall be offered to permit installation, access, and removal of the Emergency and Assistance telephones

**Free-standing Tower,**  as referenced in section 12.2.0

**Telephone Management Application Software,**  as referenced in section 12.6.0

11.6.4 Equipment Manufacturer and Model Numbers

The Call Push Button and Keypad, Flush-mount WiFi Access Telephone shall be GAI-Tronics RED ALERT® model number **398-811A**. Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **540-001** 120 V ac, L.E.D. Strobe Assembly with constant-on feature
* **541-001** 12-24 V dc,Low Voltage Strobe with programmable constant-on feature
* **4115A** Strobe Assembly Mounting Kit
* **233-001** Security Screwdriver
* **234-800** WiFi Free-standing Tower, including clear lens/antenna assembly and panel light assembly
* **231-002** Pole Mounting Kit for surface mount enclosure
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephone

**12.0.0 Peripheral Equipment**

12.1.0 L.E.D Strobe (120 Vac or 12-24 Vdc)

12.1.1 Description

The 120 Vac L.E.D. Strobe shall provide a constant-on glow when power is applied. The input power shall be routed directly to the strobe and not through the controlling Emergency Telephone. When the strobe receives a dry contact closure from a connected Emergency Telephone, the constant-on glow shall flash at a rate of 240 times per minute. This flash shall remain active until the contact closure provided by the connected telephone is removed. Upon contact closure removal, the strobe shall return to its constant-on state.

The 12-24 Vdc L.E.D. Strobe shall be field-programmable to provide a constant-on glow when power is applied or to be off until activated. The input power shall be routed directly to the strobe and not through the controlling Emergency Telephone. When the strobe receives a dry contact closure from a connected Emergency Telephone, the strobe shall flash at a rate of 240 times per minute. This flash shall remain active until the contact closure provided by the connected telephone is removed. Upon contact closure removal, the strobe shall return to its constant-on state or turn off, depending on the programming.

Both L.E.D. Strobes shall provide a high visibility, even in daylight and shall have a minimum life expectancy of up to 100,000 hours. The outer lens of the strobes shall be blue in color, creating a uniform blue “glow” when energized. The strobes shall provide a secondary dry contact closure output, rated at 2 amperes, when in flash mode. This contact closure output shall be used to activate ancillary devices and shall disengage when the strobes return to their original state.

The L.E.D. Strobes shall be capable of being mounted onto a male, ¾” pipe thread. The strobes shall connect to the telephones via a pre-connected wire pair.

12.1.2 Features

The L.E.D. Strobe shall include the following features:

* High visibility, even in daylight
* 100,000-hour L.E.D. life
* Low power consumption
* “Outdoor Wet” weatherproof rating
* Low operating temperature
* Constant-on feature
* 240 Flashes per minute
* UL/cUL listing
* Dry contact closure output (rated at 2 amperes)

12.1.3 Performance Specifications

The L.E.D. strobes shall meet the following performance specification:

**Electrical**

Nominal Current . . . . . . . . . . . . . . . . . . . . . . . …….. . . . . . . . . … . . . . . . 0.39 amperes at 120 V ac

 1.1 amperes at 12 V dc

 0.5 amperes at 24 V dc

Rated L.E.D. life . . . . . . . . . . . . . . . . . . . . . .. . …... . . . . . . . . . . . . . . . . . . . . . Up to 100,000 hours

Flashes per minute . . . .. . . . . . . . . .. . . . . . . . . . . . …… . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 240

Auxiliary contact maximum rating . . . . . . . . . .. . . …... . . . . . 2 amps @ 30 Vdc, 2 amps @ 240 Vac

Termination (ac, control, auxiliary contact) . . . . . . . . . . . ….. . . . . . . . . . . . . . 15-foot, 18 AWG wire

**Environmental**

Operating (environment) temperature range . . . . …... . .. . . . . -40° C to +66° C (-40° F to + 150° F)

Environmental……………………………………………….…..…UL listed for “Outdoor Wet” Locations

**Mechanical**

Base. . . . . . . . . . . . . ……. . . . . . . . … . Die-cast aluminum (light gray or black baked enamel finish)

Dome . . . . . . . . . . . . . . . . . .. . …… . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . . Polycarbonate (blue)

Dimensions . . . . . . . . . . …… . .. . . . . . . . . . . . . . . . 7.75 H x 8.25 W inches (196.85 x 209.55 mm)

Shipping weight . . . .. . . . . . . .. . . . . . . . . . . . . . . . . ….. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 6.5lbs

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ….. . . . . . . . . . . . . . . . . . . . . 3/4-14NPT female

**Approvals**. . . . . . . . . . . . . . . . . . . . . . . .. . . . . .. . . . . . . . . . . . . .UL 1638A / CSA C22.2 No. 205-17

12.1.4 Interconnection

The L.E.D. Strobe shall include a minimum 12-foot wiring harness for the following connections:

* Control pair (dry contact closure from connected Emergency Telephone)
* Output pair (dry contact closure to ancillary device)
* 120 V ac power input

All wire leads shall be stripped and tinned and suitable for wire nut or screw terminal installation.

12.1.5 Peripheral Equipment and Accessories

The following peripheral equipment shall be offered in support of the L.E.D. Strobe.

**Mounting Kit** shall provide the ability to mount the strobe on a wall or flat surface.

12.1.6 Equipment Manufacturer and Model Numbers

The L.E.D. Strobe shall be GAI-Tronics Model **540-001 (120 Vac)** or **541-001 (12-24 Vdc)**. The Strobe Mounting Kit shall be GAI-Tronics Model **4115A**.

12.2.0 Free-Standing Tower

12.2.1 Description

The Free-standing Tower shall be designed to house the following components:

* Flush-mount Emergency or Access Telephone; analog, VoIP, or WiFi
* Blue-light Strobe with constant-on feature (120 V ac or 24 V dc)
* Telephone panel light to provide lighting over the face of the installed telephone (AC or DC)

The Free-standing Tower body shall measure shall be constructed of 3/16” cold-rolled steel, and painted with powder coat epoxy, Architectural Bronze in color. The body shall include openings for installing the flush-mount telephone, panel light, and rear access for installation purposes. A gasketed access panel measuring 7” W x 18” H shall be included with the stanchion body. The body shall include provisions to install a strobe assembly, via a ¾” male NPT coupling, and a telephone panel light. A mounting plate to provide conduit entrance and clearance holes for attaching to secure anchor bolts shall be incorporated into the design and construction of the tower body.

The Free-standing Tower shall include the following assemblies:

* Tower body
* Protective lens assembly affixed to the top of the unit (shall include an integral WiFi antenna for WiFi models)
* Mounting kit to include necessary bolt anchors and installation instructions
* L.E.D. Panel light assembly to provide illumination over the installed telephone (AC and DC version shall be offered).

The referenced blue-light strobe, mounting kit, and flush-mount telephone shall be purchased separately.

12.2.2 Interconnection

Interconnecting wiring shall be limited to standard telephone or cat 5/6e twisted telephone pairs, appropriately gauged power triplet for 120 V ac or 12-24 V dc connections, and coaxial cable (WiFi models). All external cabling shall be entered through the bottom of the tower body, insuring proper separation of audio and power conductors. All wiring shall connect to its designated components via screw-down terminal strips, wire nuts/crimps, or appropriate adapters/connectors.

12.2.3 Features

The Free-standing Tower shall include the following features:

* UL/cUL listed for outdoor installations
* ADA Compliant
* Powder-coated epoxy finish
* Rugged construction for longevity and durability
* Suitable for AC or DC power applications
* 140 MPH wind speed rating (when installed in compliance with manufacturer’s published instructions)

12.2.4 Performance Specifications

This Free-standing tower shall meet the following performance and physical specifications:

Dimensions..................................................................... 10 W x 10 D x 114 H inches (0.25 x 0.25 x 2.89 m)

Construction ...........................................................................................................3/16-inch cold-rolled steel

Finish/Color .............................................................................. Powder-coated epoxy / Architectural bronze

Power Rating

Strobe Nominal Current . . . . . . . . . . . . . . . . . . . . . . . …….. . . . . . . . . … . . . . . . 0.39 amperes at 120 V ac

 1.1 amperes at 12 V dc

 0.5 amperes at 24 V dc

L.E.D. Panel light..................................................................................................AC @ 25 mA, 120-230 V ac

 DC @ 40 mA, 10-33 V dc

Terminations

Strobe (AC/DC power, control, auxiliary contact) .................................................. 15-foot, No. 18 AWG wire

 (stripped, tinned leads)

L.E.D. Panel light..............................................................................................................Screw lug terminals

Shipping weight ....................................................................................................................Approx. 225 lbs.

Wind speed rating…………………………………………………………………………………………..140 MPH

 AASHTO LTS6 Risk Category II;

 International Building Code

Approvals: ………………………………………………………UL/ cUL listed OUTDOOR telephone stanchion:

 Canadian Electrical Code, Part 1 (CE Code, Part 1), and the

 ANSI/NFPA 70 National Electrical Code (NEC)

12.2.5 Peripheral Equipment and Accessories

The following peripheral equipment shall be offered in support of the Free-stanchion Stanchion:

**L.E.D. Strobe, 120 V ac,** as referenced in section 11.1.0

**L.E.D Strobe, 12-24 V dc**, as referenced in section 11.1.0

12.2.6 Equipment Manufacturer and Model Numbers

The Free-standing Tower shall be GAI-Tronics Models **234** (VoIP)or **234-800** (WiFi). Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **540-001** 120 V ac, L.E.D. Strobe Assembly with constant-on feature
* **541-001** 12-24 V dc,Low Voltage Strobe with programmable constant-on feature

12.3.0 Elite Wall-mount Communication Station

12.3.1 Description

The Wall-mount Communication Station shall be designed to house the following components:

* Flush-mount Emergency or Access Telephone
* Blue-light Strobe with constant-on feature (120 V ac or 24 V dc)
* Telephone panel light to provide lighting over the face of the installed telephone (AC or DC)

The Elite Wall-mount Communication Station shall be constructed of 1/8-inch aluminum and painted with safety yellow polyurethane enamel. The body shall accommodate the installation of a flush-mount, emergency telephone and telephone panel light (if required) and shall include provisions to install a strobe assembly via a ¾” male NPT coupling. Safety glass shall be included to protect the installed strobe.

The Elite Wall-mount Communication Station shall include a mounting plate that can be separated from the body for ease of installation. The station shall be designed for surface mounting on any flat surface. A 120 V ac L.E.D. telephone panel light shall be included with the station.

The Elite Wall-mount Communication Station shall include the following assemblies:

* Station housing and mounting plate
* Safety glass
* L.E.D. Panel light assembly to provide illumination over the installed telephone (AC and DC versions shall be offered).

The referenced blue-light strobe and flush-mount telephone shall be purchased separately.

12.3.2 Features

The Elite Wall-mount Communication Station shall include the following features:

* UL/cUL listed for outdoor installations
* Powder-coated epoxy finish
* Rugged construction for longevity and durability
* Suitable for AC or DC power applications

12.3.3 Interconnection

Interconnecting wiring shall be limited to standard telephone or cat 5/6e twisted telephone pairs and appropriately gauged power triplet for 120 V ac or 24 V dc connections. All external cabling shall be entered through the stanchion mounting plate, insuring proper separation of audio and power conductors. All wiring shall connect to its designated components via screw-down terminal strips or wire nuts/crimps.

12.3.4 Performance Specifications

The Elite Wall-mount Communication Station shall meet the following performance and physical specifications:

Dimensions.......................................................... 40.5H x 10.0 W x 9.5D inches (1028.7 x 254 x 241.3 mm)

Construction .......................................................................................................................1/8-inch aluminum

Finish/Color .......................................................................................... Polyurethane Enamel, Safety Yellow

Power Rating

Strobe Nominal Current . . . . . . . . . . . . . . . . . . . . . . . …….. . . . . . . . . … . . . . . . 0.39 amperes at 120 V ac

 1.1 amperes at 12 V dc

 0.5 amperes at 24 V dc

L.E.D. Panel light..................................................................................................AC @ 25 mA, 120-230 V ac

 DC @ 40 mA, 12-24 V dc

Terminations

Strobe (AC/DC power, control, auxiliary contact) .................................................. 15-foot, No. 18 AWG wire

 (stripped, tinned leads)

L.E.D. Panel light..............................................................................................................Screw lug terminals

Shipping weight ......................................................................................................................Approx. 40 lbs.

Approvals:…………………………………………………….. UL/ cUL listed OUTDOOR telephone stanchion:

 Canadian Electrical Code, Part 1 (CE Code, Part 1), and the

 ANSI/NFPA 70 National Electrical Code (NEC)

12.3.5 Peripheral Equipment and Accessories

The following peripheral equipment shall be offered in support of the Elite Wall-mount Communication Station:

**L.E.D. Strobe, 120 V ac,** as referenced in section 11.1.0

**L.E.D Strobe, 12-24 V dc**, as referenced in section 11.1.0

12.3.6 Equipment Manufacturer and Model Numbers

The Elite Wall-mount Communication Station shall be GAI-Tronics Model **234WM-202**. Options, peripherals, and accessories shall be GAI-Tronics models numbers, specified as:

* **540-001** 120 V ac, L.E.D. Strobe Assembly with constant-on feature
* **541-001** 12-24 V dc,Low Voltage Strobe with programmable constant-on feature

12.4.0 Economy Wall-mount Communication Station

12.4.1 Description

The Economy Wall-mount Communication Station shall be designed to mount the following components:

* Flush-mount Emergency or Access Telephone
* Blue-light Strobe with constant-on feature (120 V ac or 24 V dc)
* Telephone panel light to provide lighting over the face of the installed telephone (AC or DC), if

required

The Economy Wall-mount Communication Station shall be constructed of 1/8-inch aluminum, painted with a safety yellow or silver powder coat epoxy. The body shall accommodate the installation of a flush-mount, emergency telephone and telephone panel light (if required) and shall include provisions to install a strobe assembly via a ¾” male NPT coupling.

The Economy Wall-mount Communication Station shall include a mounting plate that can be separated from the body for ease of installation. The station shall be designed for surface mounting on any flat surface and shall be rated for outdoor use.

The Economy Wall-mount Communication Station shall include the following integral assemblies:

* Station housing and mounting plate
* L.E.D. Panel light assembly to provide illumination over the installed telephone (120 Vac and 12-24 Vdc versions shall be offered), if required
* L.E.D. Blue strobe mounted to the top of the station (120 Vac and 12-24 Vdc versions shall be

offered)

The referenced flush-mount telephone shall be purchased separately.

12.4.2 Features

The Economy Wall-mount Communication Station shall include the following features:

* UL/cUL listed for outdoor installations
* Powder-coated epoxy finish
* Rugged construction for longevity and durability
* Suitable for AC or DC power applications

12.4.3 Interconnection

Interconnecting wiring shall be limited to standard telephone or cat 5/6e twisted telephone pairs and appropriately gauged power triplet for 120 V ac or 24 V dc connections. All external cabling shall be entered through the stanchion mounting plate, insuring proper separation of audio and power conductors. All wiring shall connect to its designated components via screw-down terminal strips or wire nuts/crimps.

12.4.4 Performance Specifications

The Economy Wall-mount Communication Station shall meet the following performance and physical specifications:

**Mechanical**

Dimensions............................................... 40.25 H x 10.31 W x 6.81 D inches (1022.4 x 261.9 x 170.3 mm)

Construction .......................................................................................................................1/8-inch aluminum

Finish/Color ....................................................................... Powder-coat epoxy, yellow (-001) or silver (-002)

Weight ....................................................................................................................................Approx. 30 lbs.

**Electrical**

Strobe Nominal Current . . . . . . . . . . . . . . . . . . . . . . . …….. . . . . . . . . … . . . . . . 0.39 amperes at 120 V ac

 1.1 amperes at 12 V dc

 0.5 amperes at 24 V dc

L.E.D. Panel light.........................................................................................................AC @ 25 mA, 120 V ac

 DC @ 40 mA, 12-24 V dc

**Terminations**

Strobe (AC/DC power, control, auxiliary contact) .................................................. 15-foot, No. 18 AWG wire

 (stripped, tinned leads)

L.E.D. Panel light..............................................................................................................Screw lug terminals

**Approvals**

Standards for Luminaires……………………………………………..……..UL 1598 and CSA C22.2 No. 250.0

**Environmental**

Weather Rating……………………………………………………Indoor/Outdoor – Suitable for Wet Locations

12.4.5 Peripheral Equipment and Accessories

The following peripheral equipment shall be offered in support of the Elite Wall-mount Communication Station:

**Pole Mounting Kit** shall be designed to allow mounting of the Economy Wall-mount Communication Stations to a pole with a maximum diameter of 4-inches.

12.4.6 Equipment Manufacturer and Model Numbers

The Economy Wall-mount Communication Station shall be GAI-Tronics Models **240WM** or **241WM** series, specified as:

* **240WM-001** Wall-mount Station, yellow, with L.E.D. strobe and panel light; 120 Vac
* **240WM-002** Wall-mount Station, silver, with L.E.D. strobe and panel light; 120 Vac
* **240WM-001DC** Wall-mount Station, yellow, with L.E.D. strobe and panel light; 12-24 Vdc
* **240WM-002DC** Wall-mount Station, silver, with L.E.D. strobe and panel light; 12-24 Vdc
* **241WM-001** Wall-mount Station, yellow, with L.E.D. strobe; 120 Vac
* **241WM-002** Wall-mount Station, silver, with L.E.D. strobe; 120 Vac
* **241WM-001DC** Wall-mount Station, yellow, with L.E.D. strobe; 12-24 Vdc
* **241WM-002DC** Wall-mount Station, silver, with L.E.D. strobe; 12-24 Vdc

Peripherals and accessories shall be GAI-Tronics model numbers, specified as:

* **231-003** Pole-mount Kit for Wall-mount Economy Communication Stations

12.5.0 Surface-mount Enclosures

12.5.1 Description

Surface-mount Enclosures shall be offered to provide surface mounting of flush-mount emergency and access telephones. Enclosures shall be offered in a painted, hooded design and a non-hooded, brushed stainless steel design. When installed in either Surface-mount Enclosure design, the emergency and access telephones shall meet Type-3R weatherproof standards.

12.5.2 Interconnection

Interconnecting wiring shall be limited to standard telephone or cat 5/6e twisted telephone pairs. All external cabling shall be entered through the rear of the Surface-mount enclosure. All wiring shall connect to the telephone via screw-down terminal strips or RJ11 modular connector (4-conductor).

12.5.3 Performance Specifications

This Surface-mount Enclosures shall meet the following physical specifications:

Hooded Design

Dimensions......................................................... 12.3 H x 10.31 W x 6.37 D inches (312 x 262 x 162 mm)

Construction .................................................................................................................0.063-inch aluminum

Finish/Color ............................................................................... Polyurethane paint (Red, Yellow, or Black)

Mounting .....................................Four 5/16-inch (0.312 mm) diameter mounting holes in mounting bosses

Cable Entry ...........................................................................................Customer-provided (rear or bottom)

Shipping weight ....................................................................................................................... 3.5 lbs. max.

Labeling ............................................................................................Handset symbol on left and right sides

Non-hooded Design

Dimensions.......................................................... 12.13 H x 10.18 W x 2.65 D inches (308 x 259 x 67 mm)

Construction .................................................................................Type 304 stainless steel, 0.063 thickness

Finish/Color ............................................................................................................ Brushed and passivated

Mounting .....................................Four 5/16-inch (0.312 mm) diameter mounting holes in mounting bosses

Cable Entry .................................................................................................1-inch entry in rear of enclosure

Shipping weight ....................................................................................................................... 5.0 lbs. max.

Labeling.................................................................................................................................................None

12.5.4 Equipment Manufacturer and Model Numbers

The Surface-mount Enclosures shall be GAI-Tronics models:

* **236-001RD** Hooded surface-mount enclosure, red
* **236-001YL** Hooded surface-mount enclosure, yellow
* **236-001BK** Hooded surface-mount enclosure, black
* **238-001** Surface-mount Enclosure, brushed stainless steel

12.6.0 VoIP Telephone Management Application (TMA) Package

12.6.1 Description

The VoIP Telephone Management Application (TMA) package shall be designed as a maintenance data collection and reporting tool to allow users to view and report the health of the Telephones in the system. TMA shall be a Windows 10® based software application and shall be intended for use on a dedicated PC. TMA shall be designed to monitor individual Telephones in the system, each on a common Ethernet network.

The VoIP TMA shall be designed to poll each VoIP Telephone in the system to determine health status and activity, via software embedded in a required security key, with no additional cabling requirement.

When polled, each VoIP Telephone shall report the following to the TMA:

* **Configuration Error** –Signal that the configuration file currently used by the unit has one entry errors which have been ignored.
* **Cold Reset** – Signal the unit has been reset due to a power cycle (failure)
* **Warm Reset** – Signal the unit has reset due to an internal software command or error
* **Keypad Error** – Signal that a key has remained pressed for the entire usage period
* **Register Fail** – Signal a failure to register with the Proxy server for a period in excess of the usage period
* **Audio Path Test** - Signal a failure in the microphone/speaker operation

The TMA shall be flexible in its provisions for adding, changing, and deleting Telephones within the system. It shall provide a variety of reports minimally in the form of call activity, exception reports (faults), and complete status reports. TMA shall provide an auto-discovery feature to detect and record new VoIP Telephones added to the system. It shall also allow manual entry of newly added Emergency Telephones. All TMA entries shall be done only by authorized personnel, controlled by a system security key.

Each VoIP Telephone shall take approximately 20 seconds to poll. In lieu of polling, Telephones shall be capable of being programmed to “call in” to the TMA. This method shall be expected to require multiple system dial-in numbers if more than one Telephone is required to call-in at a time.

12.6.2 Interconnection

The VoIP TMA shall require only a USB security key for network connection.

12.6.3 Material Provided

The VoIP TMA package shall include the following material:

* Security Key
* USB Flash Disk

12.6.4 System Requirements

The customer-provided, TMA host PC shall meet the minimum operating requirements:

* Intel® Pentium™ or AMD® 32-bit or 64-bit Processor
* Windows®  10 operating system
* RAM, hard disk space, and processor speed is dependent on the operating system's

recommended requirements

* CD-ROM Drive
* One USB port for the security key
* One USB port per TMA DTMF Transceiver
* One printer port

12.6.5 Equipment Manufacturer and Model Numbers

The VoIP Telephone Management Application (TMA) package shall be GAI-TRONICS Model **12509-044**.