**EQUIPMENT SPECIFICATION**

**GAI-TRONICS**

**BEHAVIORAL HEALTH**

 **TELEPHONE PRODUCTS**

**(ANALOG AND VoIP)**

**EQUIPMENT SPECIFICATION**

**GAI-TRONICS BEHAVIORAL HEALTH TELEPHONE PRODUCTS**

INDEX

 Page

1.0.0 Scope and Intent 4

2.0.0 Seller Warranties 4

3.0.0 Workmanship 4

4.0.0 Material and Construction 4

5.0.0 Installation: Equipment and wiring to be installed by Purchaser 4,5

 5.1.0 Analog Behavioral Health Telephones.…………………………………….……………………….4

 5.2.0 VoIP Behavioral Health Telephones.………… …………………………….…………………..4,5

6.0.0 Operation and Maintenance Instructions 5

7.0.0 Environmental Conditions 5

8.0.0 Equipment Operation 5-7

 8.1.0 Analog Behavioral Health Telephones.…………………………………….………..…..……….5,6

 8.2.0 VoIP Behavioral Health Telephones.…………………………………….……………………….6,7

9.0.0 Field Wiring/Interconnection ....7

10.0.0 Handset Analog Behavioral Health Telephones 7-13

  10.1.0 Surface-mount Handset Analog Behavioral Health Keypad Telephone 7-9

 10.1.1 Description……………………………………………………..……………… 7,8

 10.1.2 Performance Specification………………………… …………………..……………8

 10.1.3 Peripheral Equipment and Accessories………………………..……………… 8,9

 10.1.4 Equipment Manufacturer and Model Numbers……… …………………..……………9

 10.2.0 Surface-mount Handset Analog Behavioral Health Autodial Telephone 9,10

 10.2.1 Description……………………………………………………..……………… 9

 10.2.2 Performance Specification……………………………………………..……… ……9,10

 10.2.3 Peripheral Equipment and Accessories………………………..……………… 10

 10.2.4 Equipment Manufacturer and Model Numbers…………………………..……………10

 10.3.0 Flush-mount Handset Analog Behavioral Health Keypad Telephone 10-12

 10.3.1 Description……………………………………………………..……………… 10

 10.3.2 Performance Specification……………………………………………..…………… 10,11

 10.3.3 Peripheral Equipment and Accessories………………………..……………… 11,12

 10.3.4 Equipment Manufacturer and Model Numbers………………………..………………12

 10.4.0 Flush-mount Handset Analog Behavioral Health Autodial Telephone … ……..……12,13

 10.4.1 Description……………………………………………………..……………… 12

 10.4.2 Performance Specification……………………………………………..…………… 12,13

 10.4.3 Peripheral Equipment and Accessories………………………..……………… 13

 10.4.4 Equipment Manufacturer and Model Numbers………………………..……………… 13

11.0.0 Handset VoIP Behavioral Health Telephones 13-20

11.1.0 Surface-mount Handset VoIP Behavioral Health Keypad Telephone 13-15

 11.1.1 Description……………………………………………………..……………… 13,14

 11.1.2 Performance Specification………………………… …………………..……………14

 11.1.3 Peripheral Equipment and Accessories………………………..……………… 14,15

 11.1.4 Equipment Manufacturer and Model Numbers……… …………………..……………15

 11.2.0 Surface-mount Handset VoIP Behavioral Health Autodial Telephone 15,16

 11.2.1 Description……………………………………………………..……………… 15

 11.2.2 Performance Specification……………………………………………..……… ……15,16

 11.2.3 Peripheral Equipment and Accessories………………………..……………… 16

 11.2.4 Equipment Manufacturer and Model Numbers…………………………..……………16

 11.3.0 Flush-mount Handset VoIP Behavioral Health Keypad Telephone 16-18

 11.3.1 Description……………………………………………………..……………… 16

 11.3.2 Performance Specification……………………………………………..…………… 17,18

 11.3.3 Peripheral Equipment and Accessories………………………..……………… 18

 11.3.4 Equipment Manufacturer and Model Numbers………………………..………………18

 11.4.0 Flush-mount Handset VoIP Behavioral Health Autodial Telephone………..……… 18-20

 11.4.1 Description……………………………………………………..……………… 18

 11.4.2 Performance Specification…………………………………… ………..……………18,19

 11.4.3 Peripheral Equipment and Accessories………………………..……………… 19,20

 11.4.4 Equipment Manufacturer and Model Numbers………………………..……………… 20

12.0.0 Peripheral Equipment 20-22

 12.1.0 Telephone Management Application Package………………………… ..20-22

 12.1.1 Description……………………………………………………..……………… 20,21

 12.1.2 Interconnection………………………………………..…………… 21

 12.1.3 Material Provided………………..……..……… ………21

 12.1.4 System Requirements………………..……..……… ………21,22

 12.1.5 Equipment Manufacturer and Model Numbers……………..……………… 22

**Model Locator**

**Model Number Section**

**210-001BH, 210-001BHAC 10.1.0**

**210-003BH, 210-003BHAC 10.2.0**

**276-002BH, 276-002BHAC 10.3.0**

**277-002BH, 277-002BHAC 10.4.0**

**210-710BH, 210-710BHAC 11.1.0**

**210-712BH, 210-712BHAC 11.2.0**

**276-712BH, 276-712BHAC 11.3.0**

**277-712BH, 277-712BHAC 11.4.0**

**12509-042, 12509-043, 12.1.0**

**12509-044**

* 1. **Scope and Intent**

This specification identifies and details GAI-TRONICS’ Behavioral Health telephone products, accessories, and peripherals to provide two-way communications. Each analog telephone shall provide two-way communications via connection to any conventional, analog telephone network. Each VoIP telephone shall be considered an “end device”, designed for installation into an existing SIP compatible VoIP system and shall offer the same two-way communication performance.

Note: All IP servers, hubs, power supplies, and other active VoIP system/network devices shall be the responsibility of others.

**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**
	2. Analog Behavioral Health Telephones

The specified analog telephone products shall be line powered and designed for connection to the following networks via standard telephone or Cat5/6 wire pairs:

* Central Office (C.O.) line to the Public Switched Telephone Network (PSTN)
* 24 V dc or 48 V dc analog station port of a Private Branch Exchange (PBX), Private Automatic

Branch Exchange (PABX), or Key Service Unit (KSU).

A dedicated telephone line shall be required for each smart telephone. Models requiring vandal-resistant hardware shall be noted. Telephones shall be suitable for installation in temperatures between -40° C and +60° C.

* 1. VoIP Behavioral Health Telephones

The specified VoIP Rugged Telephone products shall be design for installation on an existing ethernet network and shall provide an RJ45 connection to that network. These telephones are intended to be connected to a SIP-compatible PBX or server for internal (within the network) and external (outside the network) dialing. Equipment and wiring shall be installed by the Purchaser. Telephones shall be suitable for installation in temperatures between -20° C and +60° C.

The specified VoIP telephone products shall provide dial-up (autodial 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.

Models requiring vandal-resistant hardware shall be noted.

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 indoor, dry environments.

* 1. **Equipment Operation**
	2. Analog Behavioral Health Telephones

Analog Behavioral Health Telephones shall be offered in the following configurations:

* Handset with Keypad or Autodial, Surface-mount
* Handset with Keypad or Autodial, Flush-mount

Analog Handset Behavioral Health Telephones shall include:

* Front panel pushbutton volume control for raising and lowering the handset receiver volume. Telephones shall be activated (off-hook condition) by lifting the handset from its cradle to obtain dial-tone.
* Non-moveable, magnetic reed hook-switch to limit usage failure
* Hearing aid-compatible handset with noise-cancelling microphone and armored cord or armored steel cord (as specified)
* Moisture-resistant keypad (if equipped)
* Conformally-coated PCBA

Placing a handset keypad call shall require:

1. Lift the handset from its cradle to take the telephone off-hook
2. Wait for dial tone
3. Adjust the receiver volume with the volume pushbutton
4. Use the keypad to dial the desired number
5. Return the handset to its cradle when the call has completed

Placing a handset autodial call shall require:

1. Lift the handset from its cradle to take the telephone off hook and automatically dial a pre-programmed number
2. Adjust the receiver volume with the volume control handset pressbar
3. Return the handset to its cradle when the call has completed

Each Analog Handset Behavioral Health Telephone’s ringer shall sound when called, until the handset is removed from its cradle (taken off-hook) and a conversation can take place.

All Analog Handset Behavioral Health Telephone calls shall be terminated by placing the handset back in the cradle, the receiving caller hangs up, a defined timeout of the call duration is exceeded.

All Analog Handset Behavioral Health Telephones shall be capable of providing an auxiliary output while the handset is “off hook”. The output shall be a volt-free closure capable of switch a maximum of 48 Vdc, 125 mA or: 28 Vdc, 80 mA.

* 1. VoIP Behavioral Health Telephones

VoIP Behavioral Health Telephones shall be offered in the following configurations:

* Handset with Keypad or Autodial, Surface-mount
* Handset with Keypad or Autodial, Flush-mount

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

* SIP compatible (RFC3261)
* 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)

Placing a handset keypad call shall require:

1. Lifting the handset from its cradle to take the telephone off-hook
2. Wait for dial tone
3. Adjust the receiver volume with the volume control pushbutton
4. Use the keypad to dial the desired number

Placing a handset autodial call shall require:

1. Lifting the handset from its cradle to take the telephone off hook and automatically dial a pre-programmed number

1. Adjust the receiver volume with the volume control pushbutton

The VoIP Handset Behavioral Health Telephone’s ringer shall sound when called, until the handset is removed from its cradle (taken off-hook) and a conversation can take place.

All calls shall be terminated by placing the handset back in the cradle, the receiving caller hangs up, a defined timeout of the call duration is exceeded, or via the SIP server.

VoIP Handset Behavioral Health Telephones shall provide dial-up (autodial 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 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 VoIP Handset Behavioral Health 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 handset or 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.

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.

All local analog audio and power wiring shall conform to the specific equipment’s installation instructions and local and national codes.

**10.0.0 Handset Analog Behavioral Health Telephones**

10.1.0 Surface-mount Handset Analog Behavioral Health Keypad Telephone

10.1.1 Description

The Surface-mount Handset Analog Behavioral Health Keypad Telephone shall be designed for use in an indoor environment. It shall include a handset with armored cord, full keypad, and a pushbutton volume control. Mounting hardware shall be concealed to deter vandalism and the telephone electronics shall be accessible by removing the front cover, which shall be attached with tamper-resistant screws. The enclosure shall be designed for surface mounting and the material shall be brushed stainless-steel. It shall comply with Sections 1.0.0 (Scope and Intent), 5.1.0 (Installation), and 8.1.0 (Equipment Operation) of this specification.

10.1.2 Performance Specifications

The Surface-mount Handset Analog Behavioral Health Keypad Telephone shall meet the following performance and physical specifications:

**Electrical**

Frequency Response . . . . . . . . . . . . . . . . . . . . . . . . . . . …….. . . . . . . . . . . . . . . . . . . . . . . . . 300-3,000 Hz

 Inter-digit Pause. . . . . . . . . . .. . . . . . . . . .. ……. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . 100 ms

Minimum Loop Current . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . … . . . . . . . . . 20 mA

Phone Line Requirements . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ..Loop start, central office (CO), or Analog

 station port (PBX, PABX, or KSU)

Signaling Tone (DTMF) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 100 ms tone duration

Supervisory dc Current . . . . . . . . . .. . . . . . . . . . . . .. . . . .. . . .. . . Minimum 20 mA dc; maximum 60 mA dc

Supervisory dc Voltage . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . ..24-60 V dc (not polarity sensitive)

Network Interface . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . .. Loop start

Auxiliary Output (isolated solid-state switch) . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . .. ..48 V dc @ 125 mA

 28 VRMS ac @ 80 mA RMS

Ringer Volume . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Volume typical max. < 90 dB @ 1 meter on axis

 (depends on installation location) with 15 db adjustment

Network Signaling . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . …… . . .. DTMF

**Mechanical**

Construction . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ..16-gauge (.060-inch) Type 304 brushed stainless-steel

Cable Entry. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . Through rear mounting plate

Handset/cord . . . . . . . . . . . . . . . . . . . . . .. . . . . . . ..G-style with 12-inch armored cord with internal lanyard;

 noise-cancelling microphone

Braille dial pad . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . .. Chrome-plated zinc

Dimensions . . . . . .. . . . . . . .. . . . . . . . . . ….. .10.00 H x 5.50 W x 3.27 D inches (254 x 139.7 x 83.1 mm)

Weight . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . ….. 5.5 lbs. (2.5 kg)

**Environmental**

Operating Temperature. . . . . . . . . . . . . . . . . ... . . . . . . . . . . . . . . . . . ..-40º F to + 140º F (-40º C to +60º C)

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

PCBA (Printed Circuit Board Assembly) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

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

Safety of Information Technology Equipment……………….………….UL 60950 and CSA C22.2 No. 60950

**FCC Information**

FCC Registration Number. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . US:ADGTE10A-46048HAC

Ringer Equivalence Number (REN. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . 1.0A

Network Connection (USOC). . . . . . . . . . . . . . . . . . .. . . .. . . . . . . . . . . . . . . . .. . . . . . . . . . . . . .. . . RJ11

Meets hearing aid compatibility magnetic field intensity and volume control technical standards per FCC Sections 68316 and 38.317.

**IC Information (Canada)**

IC Certification Number. . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . IC: 822A-11754

Ringer Equivalence Number (REN. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . 1.0A

Connecting Method. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . .. . . . . . . . . . . . . .. CA11A

10.1.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of Surface-mount Handset Analog Behavioral Health Keypad Telephone:

**15-inch Handset Cord** option shall be offered

**Security Screwdriver** shall be offered to permit installation, access, and removal of the front cover.

10.1.4 Equipment Manufacturer and Model Numbers

The Surface-mount Handset Analog Behavioral Health Keypad Telephone shall be GAI-TRONICS Model Number **210-001BH Surface-mount Analog Behavioral Health Keypad Telephone**. Peripherals and accessories shall be GAI-TRONICS model numbers, specified as:

* **210-001BHAC** Surface-mount Analog Behavioral Health Keypad Telephone with 15-inch handset cord option
* **233-001** Security Screwdriver

10.2.0 Surface-mount Handset Analog Behavioral Health Autodial Telephone

10.2.1 Description

The Surface-mount Handset Analog Behavioral Health Autodial Telephone shall be designed for use in an indoor environment. It shall include a handset with armored cord and a pushbutton volume control. Mounting hardware shall be concealed to deter vandalism and the telephone electronics shall be accessible by removing the front cover, which shall be attached with tamper-resistant screws. The enclosure shall be designed for surface mounting and the material shall be brushed stainless-steel. It shall comply with Sections 1.0.0 (Scope and Intent), 5.1.0 (Installation), and 8.1.0 (Equipment Operation) of this specification.

10.2.2 Performance Specifications

The Surface-mount Handset Analog Behavioral Health Autodial Telephone shall meet the following performance and physical specifications:

**Electrical**

Frequency Response . . . . . . . . . . . . . . . . . . . . . . . . . . . …….. . . . . . . . . . . . . . . . . . . . . . . . . 300-3,000 Hz

 Inter-digit Pause. . . . . . . . . . .. . . . . . . . . .. ……. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . 100 ms

Minimum Loop Current . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . … . . . . . . . . . 20 mA

Phone Line Requirements . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ..Loop start, central office (CO), or Analog

 station port (PBX, PABX, or KSU)

Signaling Tone (DTMF) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 100 ms tone duration

Supervisory dc Current . . . . . . . . . .. . . . . . . . . . . . .. . . . .. . . .. . . Minimum 20 mA dc; maximum 60 mA dc

Supervisory dc Voltage . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . ..24-60 V dc (not polarity sensitive)

Network Interface . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . .. Loop start

Auxiliary Output (isolated solid-state switch) . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . .. ..48 V dc @ 125 mA

 28 VRMS ac @ 80 mA RMS

Ringer Volume . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Volume typical max. < 90 dB @ 1 meter on axis

 (depends on installation location) with 15 dB adjustment

Network Signaling . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . …… . . .. DTMF

**Mechanical**

Construction . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ..16-gauge (.060-inch) Type 304 brushed stainless-steel

Cable Entry. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . Through rear mounting plate

Handset/cord . . . . . . . . . . . . . . . . . . . . . ... . . .. . . . G-style with 12-inch armored cord with internal lanyard;

 noise-cancelling microphone

Dimensions . . . . . .. . . . . . . .. . . . . . . . . . ….. .10.00 H x 5.50 W x 3.27 D inches (254 x 139.7 x 83.1 mm)

Weight . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . ….. 5.5 lbs. (2.5 kg)

**Environmental**

Operating Temperature. . . . . . . . . . . . . . . . . ... . . . . . . . . . . . . . . . . . ..-40º F to + 140º F (-40º C to +60º C)

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

PCBA (Printed Circuit Board Assembly) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

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

Safety of Information Technology Equipment……………….………….UL 60950 and CSA C22.2 No. 60950

**FCC Information**

FCC Registration Number. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . US:ADGTE10A-46048HAC

Ringer Equivalence Number (REN. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . 1.0A

Network Connection (USOC). . . . . . . . . . . . . . . . . . .. . . .. . . . . . . . . . . . . . . . .. . . . . . . . . . . . . .. . . RJ11

Meets hearing aid compatibility magnetic field intensity and volume control technical standards per FCC Sections 68316 and 38.317.

**IC Information (Canada)**

IC Certification Number. . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . IC: 822A-11754

Ringer Equivalence Number (REN. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . 1.0A

Connecting Method. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . .. . . . . . . . . . . . . .. CA11A

10.2.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Surface-mount Handset Analog Behavioral Health Autodial Telephone:

**15-inch Handset Cord** option shall be offered

**Security Screwdriver** shall be offered to permit installation, access, and removal of the front cover.

10.2.4 Equipment Manufacturer and Model Numbers

The Surface-mount Handset Analog Behavioral Health Autodial Telephone shall be GAI-TRONICS Model Number **210-003BH Surface-mount Analog Behavioral Health Autodial Telephone**. Peripherals and accessories shall be GAI-TRONICS model numbers, specified as:

* **210-003BHAC** Surface-mount Analog Behavioral Health Autodial Telephone with 15-inch handset cord option
* **233-001** Security Screwdriver

10.3.0 Flush-mount Handset Analog Behavioral Health Keypad Telephone

10.3.1 Description

The Flush-mount Handset Analog Behavioral Health Keypad Telephone shall be designed for use for indoor, dry environments. It shall include a handset with armored cord, full keypad, and pushbutton volume control. Access to the telephone electronics shall be protected with security hardware. The telephone shall be designed for flush mounting on a flat surface or in a suitable surface-mount enclosure and the material shall be a stainless-steel panel with painted protective dust cover. It shall comply with Sections 1.0.0 (Scope and Intent), 5.1.0 (Installation), and 8.1.0 (Equipment Operation) of this specification.

 10.3.2 Performance Specifications

The Flush-mount Handset Analog Behavioral Health Keypad Telephone shall meet the following performance and physical specifications:

**Electrical**

Frequency Response . . . . . . . . . . . . . . . . . . . . . . . . . . . …….. . . . . . . . . . . . . . . . . . . . . . . . . 300-3,000 Hz

 Inter-digit Pause. . . . . . . . . . .. . . . . . . . . .. ……. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . 100 ms

Minimum Loop Current . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . … . . . . . . . . . 20 mA

Phone Line Requirements . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ..Loop start, central office (CO), or Analog

 station port (PBX, PABX, or KSU)

Signaling Tone (DTMF) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 100 ms tone duration

Supervisory dc Current . . . . . . . . . .. . . . . . . . . . . . .. . . . .. . . .. . . Minimum 20 mA dc; maximum 60 mA dc

Supervisory dc Voltage . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . ..24-60 V dc (not polarity sensitive)

Network Interface . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . .. Loop start

Auxiliary Output (isolated solid-state switch. . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . .. ..48 V dc @ 125 mA

 28 VRMS ac @ 80 mA RMS

Handset Receiver Volume Gain. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . +18 dB in 3dB increments

Network Signaling . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . …… . . .. DTMF

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . Flush-mounting

Cable Entry. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …. . . Rear dust cover

Construction

 Front Panel. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ..14-gauge Type 304 brushed stainless steel

 Dust Cover. . . . . . . . . . . . . . . . . . . . . . . . . . . ...16-gauge cold-rolled steel with black polyurethane finish

Dimensions

 Front Panel . . . . . .. . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . ….8.5 H x 7.5 W inches (215 x 190.5 mm)

 Dust Cover (depth from mounting surface). . . . . . . . . . . . . . . . . .. . . . . . . . . .. . . . . . . . . .. . . . . . 2.37 in

Panel Cut-out (for flush-mounting) . . . . . . . . . . . . . . . . . . . . . 7.75 H x 5.75 W inches (196.6 x 146.1 mm)

Handset/cord . . . . . . . . . . . . . . . . . . . . . . . . . . . . .G-style with 12-inch armored cord and internal lanyard;

 noise-cancelling microphone

Braille dial pad . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . Chrome-plated zinc

Weight . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. … . . . . . . . . . . . . . . . . . . 5.5 lbs. (2.5 kg)

**Environmental**

Operating Temperature . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . .. . . . . .-40ºF to + 140ºF ( -40º C to +60º C)

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

PCBA (Printed Circuit Board Assembly) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

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

Safety of Information Technology Equipment……………….………….UL 60950 and CSA C22.2 No. 60950

**FCC Information**

FCC Registration Number. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . US:ADGTE10A-46048HAC

Ringer Equivalence Number (REN. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . 1.0A/1.3B

Network Connection (USOC). . . . . . . . . . . . . . . . . . .. . . .. . . . . . . . . . . . . . . . .. . . . . . . . . . . . . .. . . RJ11

Meets hearing aid compatibility magnetic field intensity and volume control technical standards per FCC Sections 68316 and 38.317.

**IC Information (Canada)**

IC Certification Number. . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …IC: 822A11754

Ringer Equivalence Number (REN. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . 1.0A/1.3B

Connecting Method. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . .. . . . . . . . . . . . . .. CA11A

10.3.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Flush-mount Handset Analog Behavioral Health Keypad Telephone:

**15-inch Handset Cord** option shall be offered

**Surface-Mount Enclosure** shall be offered to permit surface mounting of the flush-mount Behavioral Health telephone.

**Surface-mount Enclosure** shall be offered to provide surface mounting of flush-mount Behavioral Health telephones.

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

10.3.4 Equipment Manufacturer and Model Numbers

The Flush-mount Handset Analog Behavioral Health Keypad Telephone shall be GAI-TRONICS Model Number **276-002BH Flush-mount Analog Behavioral Health Keypad Telephone**. Peripherals and accessories shall be GAI-TRONICS model numbers, specified as:

* **276-002BHAC** Flush-mount Analog Behavioral Health Keypad Telephone with 15-inch handset cord option
* **238-003** Surface-mount Enclosure (brushed stainless steel) to provide surface mounting of a flush-mount Behavioral Health Telephone
* **233-001** Security Screwdriver

10.4.0 Flush-mount Handset Analog Behavioral Health Autodial Telephone

10.4.1 Description

The Flush-mount Handset Analog Behavioral Health Autodial Telephone shall be designed for use for indoor, dry environments. It shall include a handset with armored cord and pushbutton volume control. Access to the telephone electronics shall be protected with security hardware. The telephone shall be designed for flush mounting on a flat surface or in a suitable surface-mount enclosure and the material shall be a stainless-steel panel with painted protective dust cover. It shall comply with Sections 1.0.0 (Scope and Intent), 5.1.0 (Installation), and 8.1.0 (Equipment Operation) of this specification.

10.4.2 Performance Specifications

The Flush-mount Handset Analog Behavioral Health Autodial Telephone shall meet the following performance and physical specifications:

**Electrical**

Frequency Response . . . . . . . . . . . . . . . . . . . . . . . . . . . …….. . . . . . . . . . . . . . . . . . . . . . . . . 300-3,000 Hz

 Inter-digit Pause. . . . . . . . . . .. . . . . . . . . .. ……. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . 100 ms

Minimum Loop Current . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . … . . . . . . . . . 20 mA

Phone Line Requirements . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ..Loop start, central office (CO), or Analog

 station port (PBX, PABX, or KSU)

Signaling Tone (DTMF) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 100 ms tone duration

Supervisory dc Current . . . . . . . . . .. . . . . . . . . . . . .. . . . .. . . .. . . Minimum 20 mA dc; maximum 60 mA dc

Supervisory dc Voltage . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . ..24-60 V dc (not polarity sensitive)

Network Interface . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . .. Loop start

Auxiliary Output (isolated solid-state switch. . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . .. ..48 V dc @ 125 mA

 28 VRMS ac @ 80 mA RMS

Handset Receiver Volume Gain. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . +18 dB in 3dB increments

Network Signaling . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . …… . . .. DTMF

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . Flush-mounting

Cable Entry. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …. . . Rear dust cover

Construction

 Front Panel. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ..14-gauge Type 304 brushed stainless steel

 Dust Cover. . . . . . . . . . . . . . . . . . . . . . . . . . . ...16-gauge cold-rolled steel with black polyurethane finish

Dimensions

 Front Panel . . . . . .. . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . ….8.5 H x 7.5 W inches (215 x 190.5 mm)

 Dust Cover (depth from mounting surface). . . . . . . . . . . . . . . . . .. . . . . . . . . .. . . . . . . . . .. . . . . . 2.37 in

Panel Cut-out (for flush-mounting) . . . . . . . . . . . . . . . . . . . . . 7.75 H x 5.75 W inches (196.6 x 146.1 mm)

Handset/cord . . . . . . . . . . . . . . . . . . . . . . . . . . . . .G-style with 12-inch armored cord and internal lanyard;

 noise-cancelling microphone

Weight . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. … . . . . . . . . . . . . . . . . . . 5.5 lbs. (2.5 kg)

**Environmental**

Operating Temperature . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . .. . . . ..-40ºF to + 140ºF ( -40º C to +60º C)

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

PCBA (Printed Circuit Board Assembly) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

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

Safety of Information Technology Equipment……………….………….UL 60950 and CSA C22.2 No. 60950

**FCC Information**

FCC Registration Number. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . US:ADGTE10A-46048HAC

Ringer Equivalence Number (REN. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . 1.0A/1.3B

Network Connection (USOC). . . . . . . . . . . . . . . . . . .. . . .. . . . . . . . . . . . . . . . .. . . . . . . . . . . . . .. . . RJ11

Meets hearing aid compatibility magnetic field intensity and volume control technical standards per FCC Sections 68316 and 38.317.

**IC Information (Canada)**

IC Certification Number. . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . …IC: 822A11754

Ringer Equivalence Number (REN. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . 1.0A/1.3B

Connecting Method. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . .. . . . . . . . . . . . . .. CA11A

10.4.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Flush-mount Handset Analog Behavioral Health Autodial Telephone:

**15-inch Handset Cord** option shall be offered.

**Surface-Mount Enclosure** shall be offered to permit surface mounting of the flush-mount Behavioral Health telephone.

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

10.4.4 Equipment Manufacturer and Model Numbers

The Flush-mount Handset Analog Behavioral Health Autodial Telephone shall be GAI-TRONICS Model Number **277-002BH Flush-mount Analog Behavioral Health Keypad Telephone**. Peripherals and accessories shall be GAI-TRONICS model numbers, specified as:

* **277-002BHAC** Flush-mount Analog Behavioral Health Autodial Telephone with 15-inch handset cord option
* **238-003** Surface Mount Enclosure (brushed stainless steel) to provide surface mounting of a flush-mount Behavioral Health Telephone
* **233-001** Security Screwdriver

**11.0.0 Handset VoIP Behavioral Health Telephones**

11.1.0 Surface-mount Handset VoIP Behavioral Health Keypad Telephone

11.1.1 Description

The Surface-mount Handset VoIP Behavioral Health Keypad Telephone shall be designed for use in an indoor environment. It shall include a handset with armored cord, full keypad, and a pushbutton volume control. Mounting hardware shall be concealed to deter vandalism and the telephone electronics shall be accessible by removing the front cover, which shall be attached with tamper-resistant screws. The enclosure shall be designed for surface mounting and the material shall be brushed stainless-steel. It shall comply with Sections 1.0.0 (Scope and Intent), 5.2.0 (Installation) and 8.2.0 (Equipment Operation) of this specification.

11.1.2 Performance Specifications

The Surface-mount Handset VoIP Behavioral Health Keypad Telephone shall meet the following performance and physical specifications:

**Electrical**

Network Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . …….Power-over-Ethernet, 802.3af compliant (via RJ45)

 Local Power Requirements. . . . . . . . . . .. . . . . . . . . .. ……. . . . . . .24-48 V dc (a separate, isolated power supply must be provided for each telephone)

Power Consumption. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . … . . . . . . 6 watts, max.

Network: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .10/100 BaseT Ethernet RJ45, Cat5 or Cat5e

 UTP Static IP provisioning or DHCP STUN client

Call Control Signaling . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . … SIP (RFC3261 compliant)

Configuration . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Embedded web server;

 Configuration file download

 Direct serial connection; Password protection

Codecs and audio . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……. G.711 A-Law, G.711 μ-Law, G.722, G.729,

 G.723.1 MP-MLQ, G.723.1 ACELP

Call Diversion . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs (max 20 entries)

 with comfort tones, diverts to next in list if the call fails

**Inputs**

Push Buttons. . . . . . . . . . . . . . . . . . . . .. . . . . . …………. . . . . . . . . …. . . . . . . . . … . . . . . . Volume control

**Outputs**

Output control (2) contact rating.. . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . 5 A @ 30 V ac/dc (resistive load)

**Controls**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …………. . . Push-button inputs

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

**Indicators**

Internal on VoIP PCBA . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Direct surface/wall mounting via mounting plate

Cable Entry. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Through rear of box, via mounting plate

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

Construction. . . . . . . . . . . . . . . . . .. . . . . . . .. …. . 14-gauge (0.075 inch) type 304 brushed stainless-steel

Handset/cord . . . . . . . . . . . .. …… . . .G-style with 12-inch armored cord and noise-cancelling microphone

Dimensions . . . . . .. . . . . . . . . . . . . . . . . …. 10.00 H x 5.50 W x 3.27 D inches (254 x 139.7 x 83.1 mm)

# Weight . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. 5.5 lbs. (2.5 kg)

# Environmental

Temperature Range

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

 Storage . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . .-40ºF to + 158ºF ( -40º C to +70º C)

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

PCBA (Printed Circuit Board Assembly) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

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

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

11.1.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Surface-mount Handset VoIP Behavioral Health Keypad Telephone:

**15-inch Handset Cord** option shall be offered.

**Security Screwdriver** shall be offered to permit installation, access, and removal of the front cover.

**Telephone Management Application Software** as referenced in section 12.1.0 of this specification.

11.1.4 Equipment Manufacturer and Model Numbers

The Surface-mount Handset VoIP Behavioral Health Keypad Telephone shall be GAI-TRONICS Model Number **210-710BH Surface-mount VoIP Behavioral Health Keypad Telephone**. Peripherals and accessories shall be GAI-TRONICS model numbers, specified as:

* **210-710BHAC** Surface-mount VoIP Behavioral Health Keypad Telephone with 15-inch handset cord option
* **233-001** Security Screwdriver
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephones

11.2.0 Surface-mount Handset VoIP Behavioral Health Autodial Telephone

11.2.1 Description

The Surface-mount Handset VoIP Behavioral Health Autodial Telephone shall be designed for use in an indoor environment. It shall include a handset with armored cord and a pushbutton volume control. Mounting hardware shall be concealed to deter vandalism and the telephone electronics shall be accessible by removing the front cover, which shall be attached with tamper-resistant screws. The enclosure shall be designed for surface mounting and the material shall be brushed stainless-steel. It shall comply with Sections 1.0.0 (Scope and Intent), 5.2.0 (Installation) and 8.2.0 (Equipment Operation) of this specification.

11.2.2 Performance Specifications

The Surface-mount Handset VoIP Behavioral Health Autodial Telephone shall meet the following performance and physical specifications:

**Electrical**

Network Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . …….Power-over-Ethernet, 802.3af compliant (via RJ45)

 Local Power Requirements. . . . . . . . . . .. . . . . . . . . .. ……. . . . . . .24-48 V dc (a separate, isolated power supply must be provided for each telephone)

Power Consumption. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . … . . . . . . 6 watts, max.

Network: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .10/100 BaseT Ethernet RJ45, Cat5 or Cat5e

 UTP Static IP provisioning or DHCP STUN client

Call Control Signaling . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . … SIP (RFC3261 compliant)

Configuration . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Embedded web server;

 Configuration file download

 Direct serial connection; Password protection

Codecs and audio . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……. G.711 A-Law, G.711 μ-Law, G.722, G.729,

 G.723.1 MP-MLQ, G.723.1 ACELP

Call Diversion . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs (max 20 entries)

 with comfort tones, diverts to next in list if the call fails

**Inputs**

Push Buttons. . . . . . . . . . . . . . . . . . . . .. . . . . . …………. . . . . . . . . …. . . . . . . . . … . . . . . . Volume control

**Outputs**

Output control (2) contact rating.. . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . 5 A @ 30 V ac/dc (resistive load)

**Controls**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …………. . . Push-button inputs

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

**Indicators**

Internal on VoIP PCBA . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

**Mechanical**

Mounting . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Direct surface/wall mounting via mounting plate

Cable Entry. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Through rear of box, via mounting plate

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

Construction. . . . . . . . . . . . . . . . . .. . . . . . . .. …. . 14-gauge (0.075 inch) type 304 brushed stainless-steel

Handset/cord . . . . . . . . . . . .. …… . . .G-style with 12-inch armored cord and noise-cancelling microphone

Dimensions . . . . . .. . . . . . . . . . . . . . . . . …. 10.00 H x 5.50 W x 3.27 D inches (254 x 139.7 x 83.1 mm)

# Weight . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. 5.5 lbs. (2.5 kg)

# Environmental

Temperature Range

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

 Storage . . . . . . . . . . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . .-40ºF to + 158ºF ( -40º C to +70º C)

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

PCBA (Printed Circuit Board Assembly) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Conformal Coated

**Approval Standards**

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

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

11.2.3 Peripheral Equipment and Accessories

The following peripheral equipment, accessories, and sub-components shall be offered in support of the Surface-mount Handset VoIP Behavioral Health Autodial Telephone:

**15-inch Handset Cord** option shall be offered.

**Security Screwdriver** shall be offered to permit installation, access, and removal of the front

cover.

**Telephone Management Application Software** as referenced in section 12.1.0 of this specification.

11.2.4 Equipment Manufacturer and Model Numbers

The Surface-mount Handset VoIP Behavioral Health Autodial Telephone shall be GAI-TRONICS Model Number **210-712BH Surface-mount VoIP Behavioral Health Autodial Telephone**. Peripherals and accessories shall be GAI-TRONICS model numbers, specified as:

* **210-712BHAC** Surface-mount VoIP Behavioral Health Keypad Telephone with 15-inch handset cord option
* **233-001** Security Screwdriver
* **12509-044** Telephone Management Application (TMA) Package for VoIP Telephones

11.3.0 Flush-mount Handset VoIP Behavioral Health Keypad Telephone

11.3.1 Description

The Flush-mount Handset VoIP Behavioral Health Keypad Telephone shall be designed for use in harsh indoor or outdoor environments. It shall include a handset with armored cord, full keypad, and a pushbutton volume control. Access to the telephone electronics shall be protected with security hardware. The telephone shall be designed for flush mounting on a flat surface or in a suitable surface-mount enclosure and the material shall be a stainless-steel panel with painted protective dust cover. . It shall comply with Sections 1.0.0 (Scope and Intent), 5.2.0 (Installation) and 8.2.0 (Equipment Operation) of this specification.

11.3.2 Performance Specifications

The Flush-mount Handset VoIP Behavioral Health Keypad Telephone shall meet the following performance and physical specifications:

**Electrical**

Network Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . …….Power-over-Ethernet, 802.3af compliant (via RJ45)

 Local Power Requirements. . . . . . . . . . .. . . . . . . . . .. ……. . . . . . .24-48 V dc (a separate, isolated power supply must be provided for each telephone)

Power Consumption. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . … . . . . . . 6 watts, max.

Network: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .10/100 BaseT Ethernet RJ45, Cat5 or Cat5e

 UTP Static IP provisioning or DHCP STUN client

Call Control Signaling . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . … SIP (RFC3261 compliant)

Configuration . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Embedded web server;

 Configuration file download

 Direct serial connection; Password protection

Codecs and audio . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……. G.711 A-Law, G.711 μ-Law, G.722, G.729,

 G.723.1 MP-MLQ, G.723.1 ACELP

Call Diversion . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs (max 20 entries)

 with comfort tones, diverts to next in list if the call fails

**Inputs**

Push Buttons. . . . . . . . . . . . . . . . . . . . .. . . . . . …………. . . . . . . . . …. . . . . . . . . … . . . . . . Volume control

**Outputs**

Output control (2) contact rating.. . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . 8 A @ 30 V ac/dc (resistive load)

**Controls**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …………… Pushbutton inputs

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

**Indicators**

Internal on VoIP PCBA . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Codecs and audio . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……. G.711 A-Law, G.711 μ-Law, G.722, G.729,

 G.723.1 MP-MLQ, G.723.1 ACELP

Configuration . . . . . . . . . . . . . . …….Web page, configuration file, static IP address provisioning or DHCP

 monitoring and reporting real-time over TCP/IP proprietary Syslog

 application or email Embedded SMTP client automatic fault reporting

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

Cable Entry. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …. . . Rear dust cover

Construction

 Front Panel. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ..14-gauge Type 304 brushed stainless steel

 Dust Cover. . . . . . . . . . . . . . . . . . . . . . . . . . . ...16-gauge cold-rolled steel with black polyurethane finish

Dimensions

 Front Panel . . . . . .. . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . ….8.5 H x 7.5 W inches (215 x 190.5 mm)

 Dust Cover (depth from mounting surface). . . . . . . . . . . . . . . . . .. . . . . . . . . .. . . . . . . . . .. . . . . . 2.37 in

Panel Cut-out (for flush-mounting) . . . . . . . . . . . . . . . . . . . . . 7.75 H x 5.75 W inches (196.6 x 146.1 mm)

Handset/cord . . . . . . . . . . . . . . . . . . . . . . . . . . . . .G-style with 12-inch armored cord and internal lanyard;

 noise-cancelling microphone

Braille dial pad . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . Chrome-plated zinc

Weight . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. … . . . . . . . . . . . . . . . . . . 5.5 lbs. (2.5 kg)

**Environmental**

Temperature Range

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

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . .. . . . . .-40ºF to + 158ºF ( -40º C to +70º C)

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . .. . . . . . . . . . . . . NEMA 3R

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

PCBA (Printed Circuit Board Assembly) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 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 Flush-mount Handset VoIP Behavioral Health Keypad Telephone:

**15-inch Handset Cord** option shall be offered.

**Surface-Mount Enclosure** shall be offered to permit surface mounting of the flush-mount Behavioral Health telephone.

**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 12.1.0.

11.3.4 Equipment Manufacturer and Model Numbers

The Flush-mount Handset VoIP Behavioral Health Keypad Telephone shall be GAI-TRONICS Model Number **276-712BH** **Flush-mount Handset VoIP Behavioral Health Keypad Telephone**. Peripherals and accessories shall be GAI-TRONICS model numbers, specified as:

* **276-712BHAC** Flush-mount Handset VoIP Behavioral Health Keypad Telephone with 15-inch Handset Cord Option
* **238-003** Surface Mount Enclosure (brushed stainless steel) to provide surface mounting of a flush-mount Behavioral Health Telephone
* **233-001** Security Screwdriver
* **12509-044** Telephone Management Application (TMA) software package for VoIP Telephones

11.4.0 Flush-mount Handset VoIP Behavioral Health Autodial Telephone

11.4.1 Description

The Flush-mount Handset VoIP Behavioral Health Autodial Telephone shall be designed for use in harsh indoor or outdoor environments. It shall include a handset with armored cord and a pushbutton volume control. Access to the telephone electronics shall be protected with security hardware. The telephone shall be designed for flush mounting on a flat surface or in a suitable surface-mount enclosure and the material shall be a stainless-steel panel with painted protective dust cover. It shall comply with Sections 1.0.0 (Scope and Intent), 5.2.0 (Installation) and 8.2.0 (Equipment Operation) of this specification.

11.4.2 Performance Specifications

The Flush-mount Handset VoIP Behavioral Health Autodial Telephone shall meet the following performance and physical specifications:

**Electrical**

Network Power: . . . . . . . . . . . . . . . . . . . . . . . . . . . …….Power-over-Ethernet, 802.3af compliant (via RJ45)

 Local Power Requirements. . . . . . . . . . .. . . . . . . . . .. ……. . . . . . .24-48 V dc (a separate, isolated power supply must be provided for each telephone)

Power Consumption. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . … . . . . . . 6 watts, max.

Network: . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .10/100 BaseT Ethernet RJ45, Cat5 or Cat5e

 UTP Static IP provisioning or DHCP STUN client

Call Control Signaling . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . … SIP (RFC3261 compliant)

Configuration . . . . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Embedded web server;

 Configuration file download

 Direct serial connection; Password protection

Codecs and audio . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……. G.711 A-Law, G.711 μ-Law, G.722, G.729,

 G.723.1 MP-MLQ, G.723.1 ACELP

Call Diversion . . . . . . . . . . . . . . . . . . . . . . . . . . . . .Configurable call list Numbers or URIs (max 20 entries)

 with comfort tones, diverts to next in list if the call fails

**Inputs**

Push Buttons. . . . . . . . . . . . . . . . . . . . .. . . . . . …………. . . . . . . . . …. . . . . . . . . … . . . . . . Volume control

**Outputs**

Output control (2) contact rating.. . . . . . . .. . . . . . . . . . . . . . . . . . . . . . . . . 8 A @ 30 V ac/dc (resistive load)

**Controls**

External . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …………… Pushbutton inputs

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

**Indicators**

Internal on VoIP PCBA . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . Power, Heartbeat & EACT L.E.D.s

Codecs and audio . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ……. G.711 A-Law, G.711 μ-Law, G.722, G.729,

 G.723.1 MP-MLQ, G.723.1 ACELP

Configuration . . . . . . . . . . . . . . …….Web page, configuration file, static IP address provisioning or DHCP

 monitoring and reporting real-time over TCP/IP proprietary Syslog

 application or email Embedded SMTP client automatic fault reporting

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

Cable Entry. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . …. . . Rear dust cover

Construction

 Front Panel. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . ..14-gauge Type 304 brushed stainless steel

 Dust Cover. . . . . . . . . . . . . . . . . . . . . . . . . . . ...16-gauge cold-rolled steel with black polyurethane finish

Dimensions

 Front Panel . . . . . .. . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . ….8.5 H x 7.5 W inches (215 x 190.5 mm)

 Dust Cover (depth from mounting surface). . . . . . . . . . . . . . . . . .. . . . . . . . . .. . . . . . . . . .. . . . . . 2.37 in

Panel Cut-out (for flush-mounting) . . . . . . . . . . . . . . . . . . . . . 7.75 H x 5.75 W inches (196.6 x 146.1 mm)

Handset/cord . . . . . . . . . . . . . . . . . . . . . . . . . . . . .G-style with 12-inch armored cord and internal lanyard;

 noise-cancelling microphone

Weight . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. … . . . . . . . . . . . . . . . . . . 5.5 lbs. (2.5 kg)

**Environmental**

Temperature Range

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

 Storage . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . .. . . . . .-40ºF to + 158ºF ( -40º C to +70º C)

Weatherproof Rating . . . .. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . .. . . . . . . . .. . . . . . . . . . . . . NEMA 3R

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

PCBA (Printed Circuit Board Assembly) . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . 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 Flush-mount Handset VoIP Behavioral Health Autodial Telephone:

**15-inch Handset Cord** option shall be offered.

**Surface-Mount Enclosure** shall be offered to permit surface mounting of the flush-mount Behavioral Health telephone

**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 12.1.0 of this specification.

11.4.4 Equipment Manufacturer and Model Numbers

The Flush-mount Handset VoIP Behavioral Health Autodial Telephone shall be GAI-TRONICS Model Number **277-712BH Flush-mount Handset VoIP Behavioral Health Keypad Telephone**. Peripherals and accessories shall be GAI-TRONICS model numbers, specified as:

* **277-712BHAC** Flush-mount Handset VoIP Behavioral Health Keypad Telephone with 15-inch Handset Cord Option
* **238-003** Surface Mount Enclosure (brushed stainless steel) to provide surface mounting of a flush-mount Behavioral Health Telephone
* **233-001** Security Screwdriver
* **12509-044** Telephone Management Application (TMA) software package for VoIP Telephones

**12.0.0 Peripheral Equipment**

12.1.0 Telephone Management Application (TMA) Package

12.1.1 Description

The 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 dedicated analog line or on a common Ethernet network.

The TMA shall be designed to poll each Behavioral Health Telephone in the system to determine health status and activity. The TMA shall route all analog telephone polling activity through a transceiver designed and manufactured by the TMA software designer. Each transceiver shall poll one telephone at a time, but TMA shall be capable of supporting eight analog (8) line inputs, allowing eight different telephones to be polled simultaneously. A TMA transceiver shall be required for each connected analog line.

The TMA shall be also be capable of polling VoIP telephones via software embedded in the required security key, with no additional cabling requirement.

When polled, each Behavioral Health Analog Telephone shall report the following to the TMA:

* **Line integrity**
* **Microprocessor health**
* **Stuck buttons**
* **Handset Integrity**
* **Audio Path Test** (handset microphone/receiver)
* **Line interrupt** (power failure)

When polled, each Behavioral Health 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
* **Handset Integrity**
* **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 handset microphone/receiver 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 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 Behavioral Health Analog Telephone shall take approximately 90 seconds to poll and gather data. Each Behavioral Health 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.

12.1.2 Interconnection

The analog TMA transceiver shall connect to the host PC via USB connector and to the telephone line via 4-pin modular connector (RJ11). A VoIP only TMA shall require only a USB security key for network connection.

12.1.3 Material Provided

The analog TMA package shall include the following material:

* (1) Transceiver Unit
* Software CD-ROM
* Security Key
* Telephone Cable (4-conductor) for connection to PBX line
* USB Cable for connecting host PC to Transceiver Unit

The VoIP TMA package shall include only a USB security key and USB flash disk with the operating software.

12.1.4 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

12.1.5 Peripheral Equipment and Accessories

The following peripheral equipment, options, and accessories shall be offered in support of the Telephone Management Application.

**TMA Expansion Kit** shall provide a transceiver and interconnecting cables for connection to the telephone system and host PC for the purpose of providing the capability to poll via an additional analog line.

12.1.6 Equipment Manufacturer and Model Numbers

The Analog/VoIP Telephone Management Application package shall be GAI-TRONICS Model **12509-042**. The Analog/VoIP TMA Expansion Kit shall be GAI-Tronics Model **12509-043**. The VoIP only TMA kit shall be GAI-TRONICS Model **12509-044**.