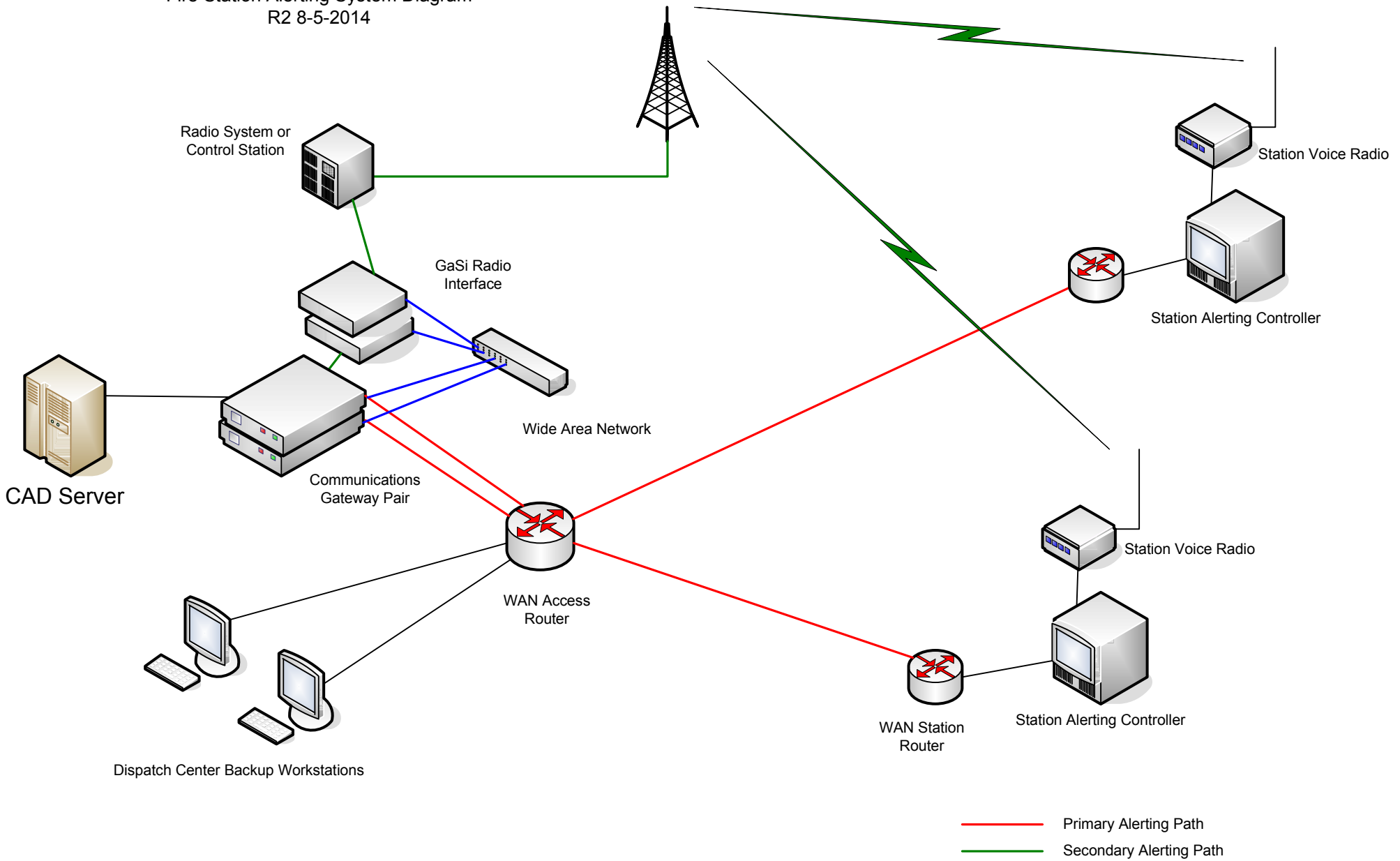


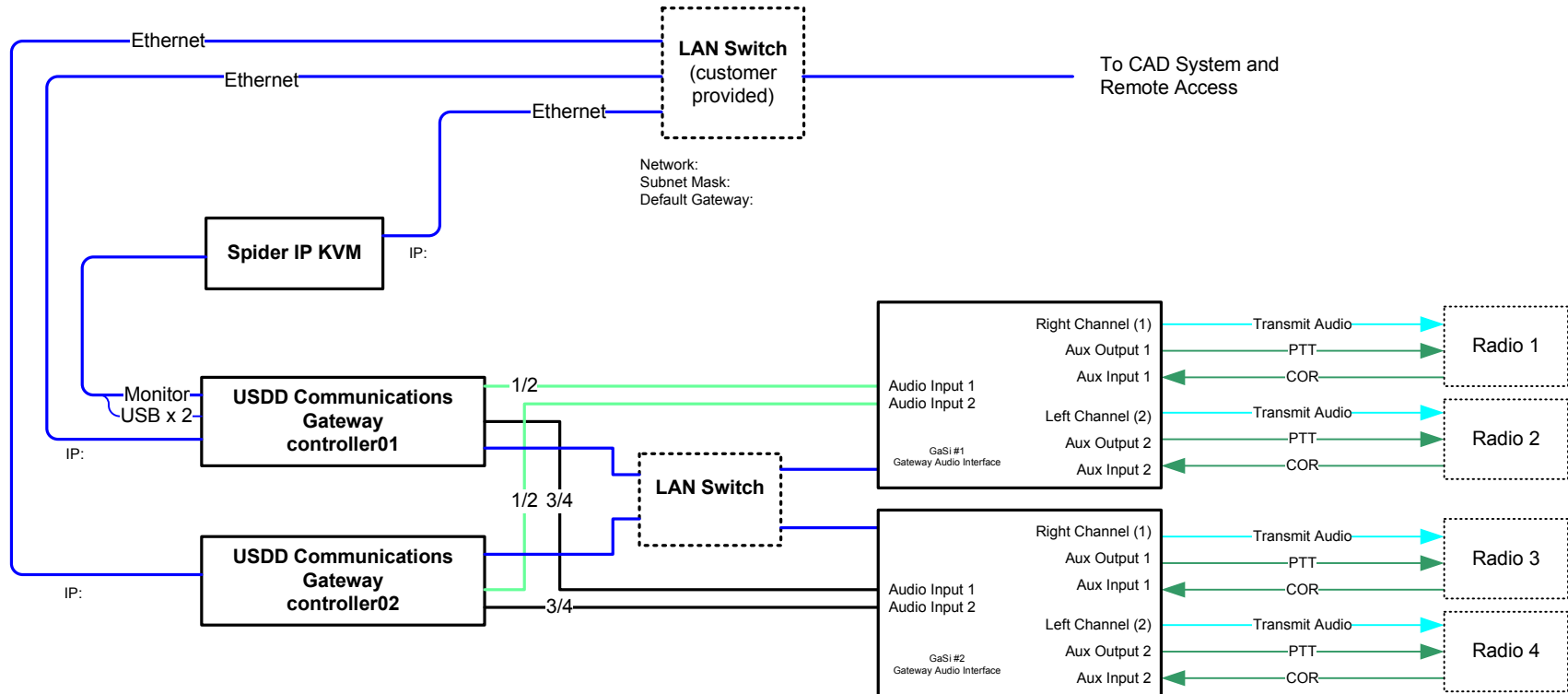
US DIGITAL DESIGNS

Fire Station Alerting System Diagram
R2 8-5-2014



US DIGITAL DESIGNS

Gateway Interface Diagram
Rev E 8-6-2014



Each Gateway system requires a minimum of 4 IP addresses:

- 2 IP addresses, 1 for each physical server.
- 1 IP address for the active Gateway
- 1 IP address for the Spider IP KVM.

An additional IP address is required for each GaSi audio interface installed.

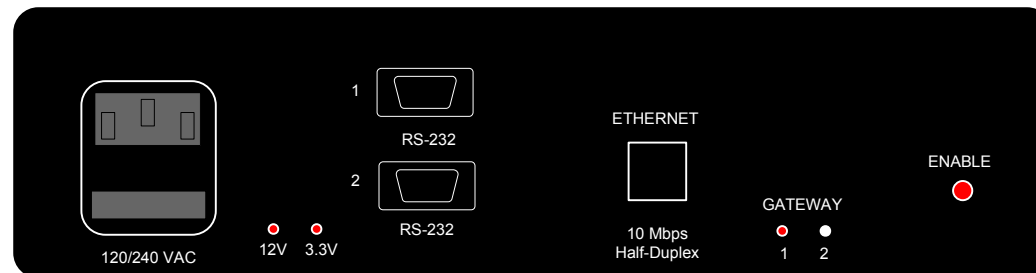
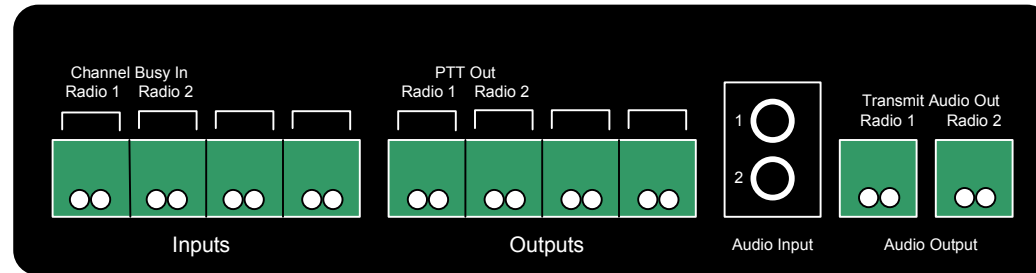
Transmit Audio – Audio sent to radio or radio system for transmission to field units.

PTT – Push-To-Talk, signal that causes radio to transmit audio.

COR – Carrier Operated Relay – Relay contact closure that indicates the radio is receiving a signal. Used to inhibit transmissions while another user is talking.

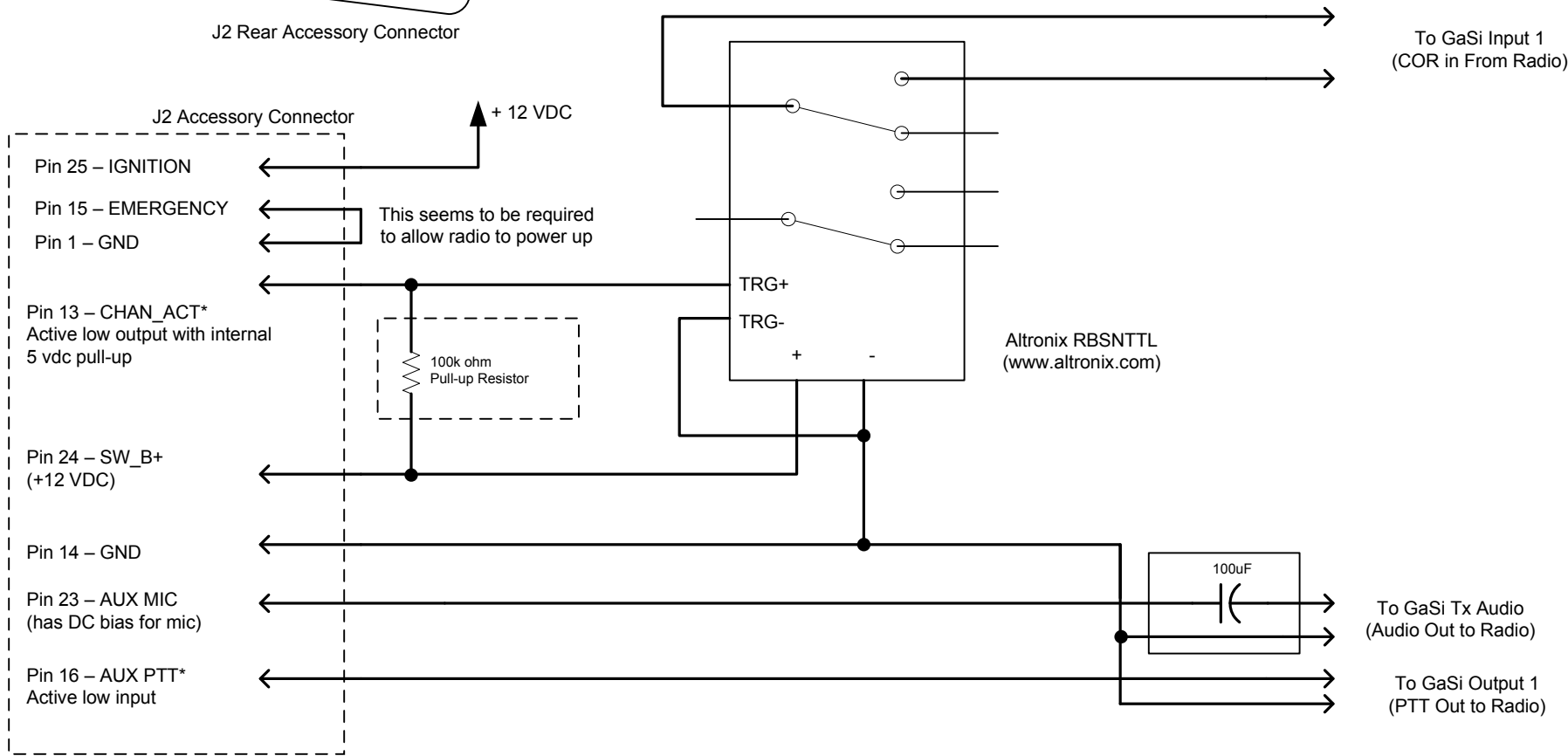
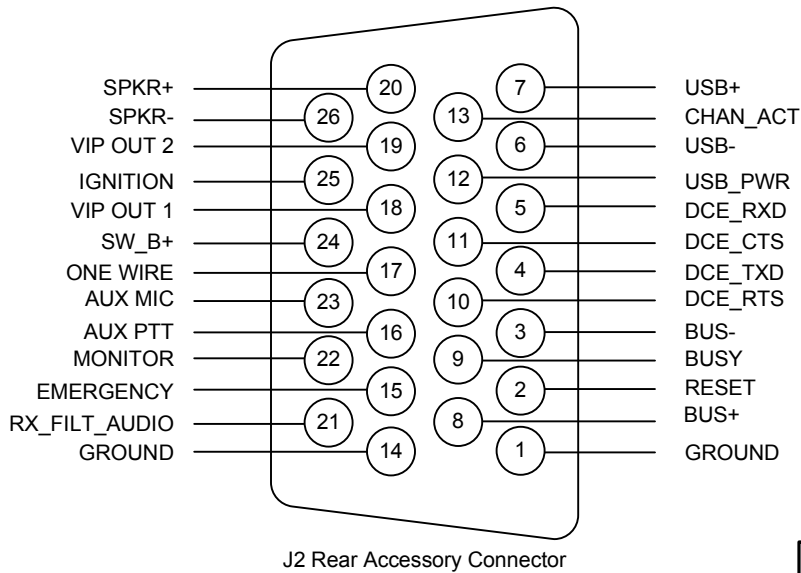
US DIGITAL DESIGNS

GaSi Panel Diagram
Rev B - Dec 13 2013



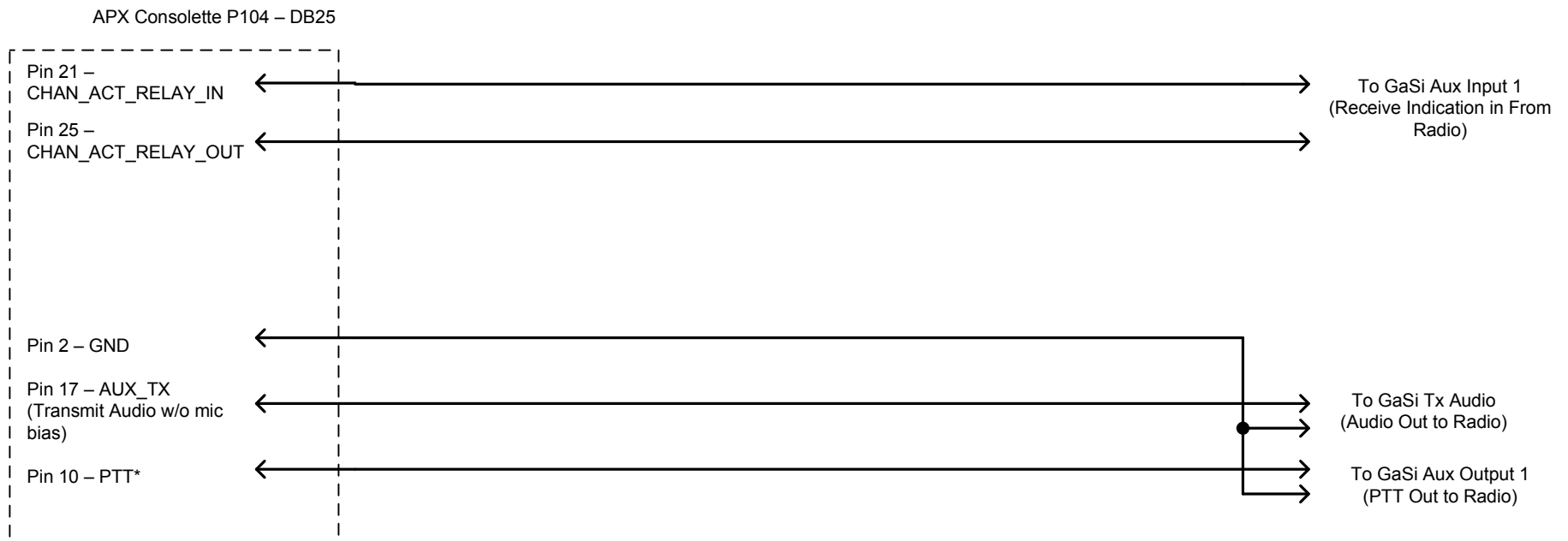
Motorola XTL to GaSi Interface

Rev B – 9-19-2013



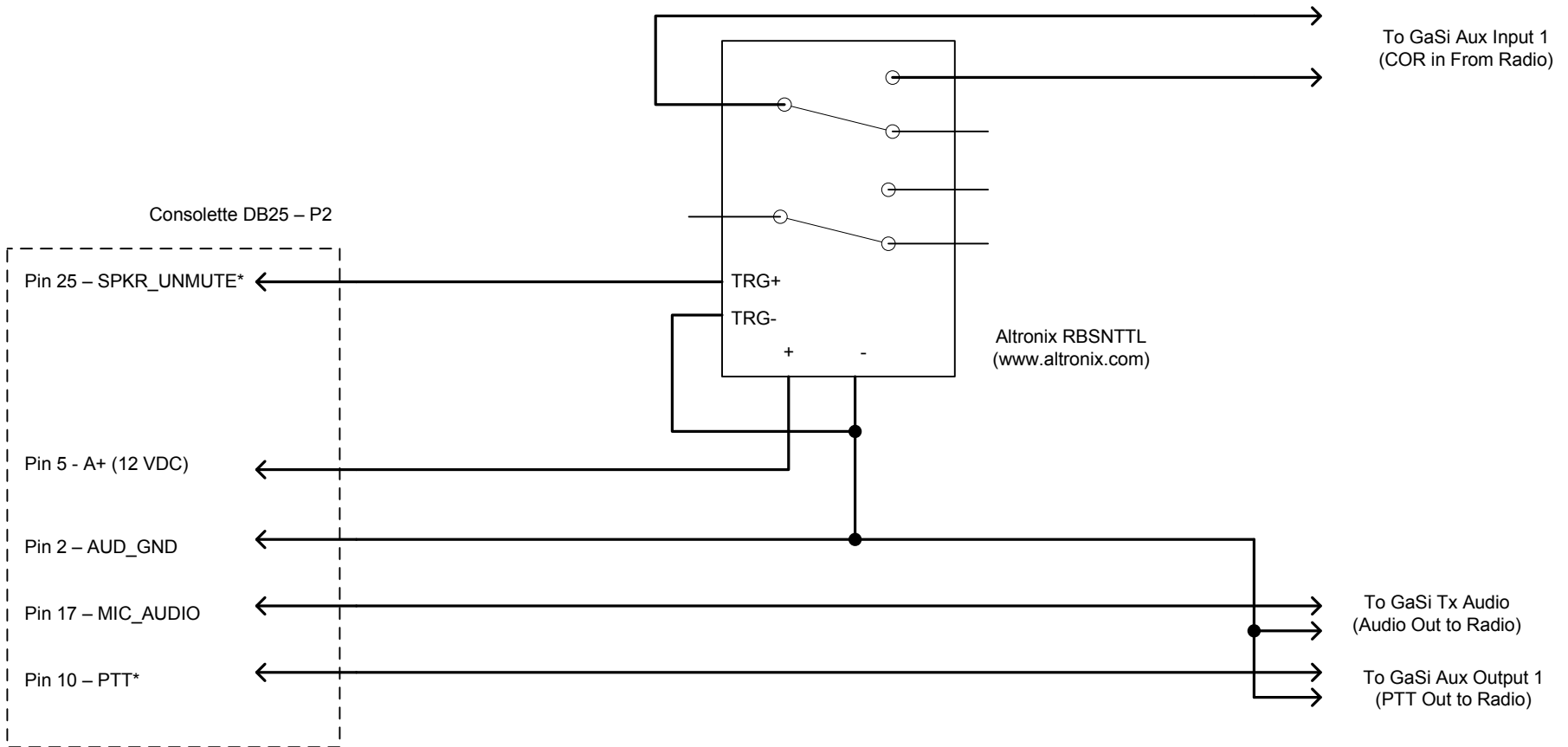
Motorola APX Consolette to GaSi Interface

Rev A – November 19-2013



Motorola Older Consolette to GaSi Interface

Rev B – 3-12-2013



Motorola Consolette Connector Pinout

J2

Pin Signal Name Description

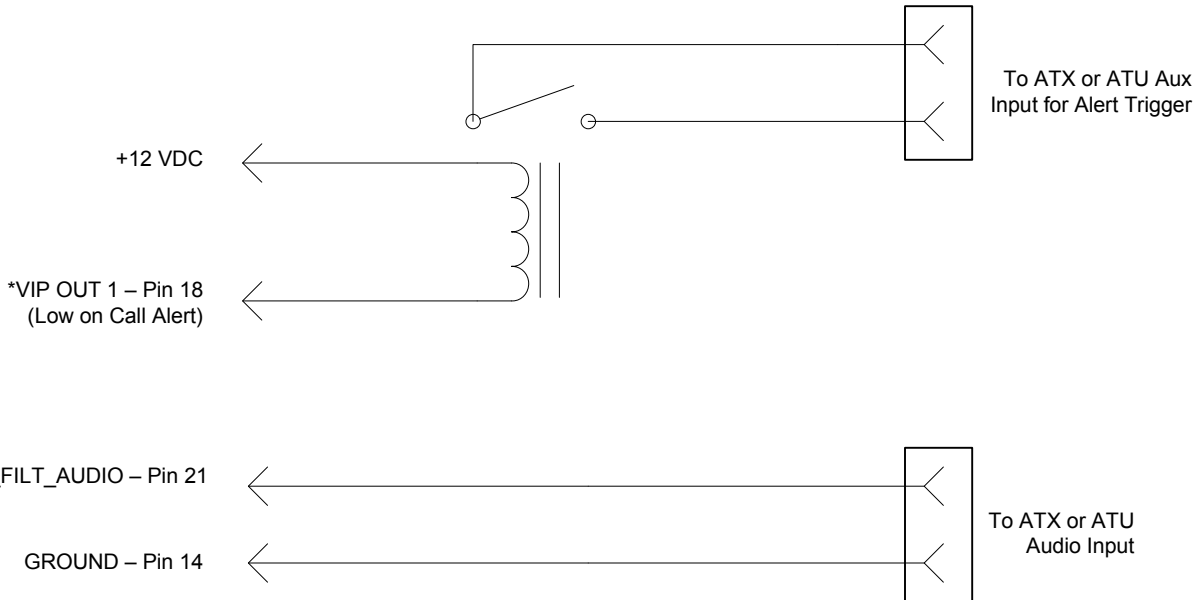
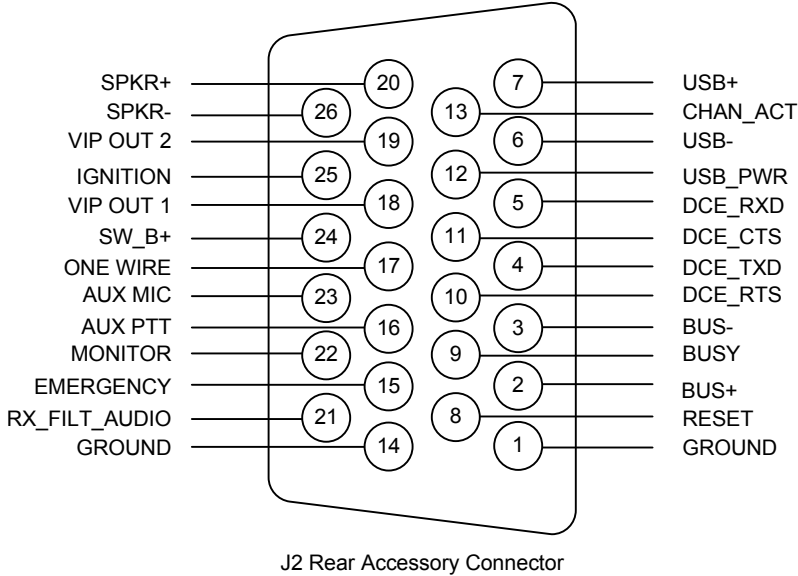
- 1 RX+ (LINE1+) Receive high used with TRC desksets (TX and RX high for two-wire operation; RX high for four-wire operation)
- 2 AUD_SHLD Ground: audio or analog
- 3 TX+ (LINE2+) Transmit high used with all desksets (TX high for four-wire operation)
- 4 FILT_AUD (DET_AUD) RX filtered audio (RX detect or discriminator audio)
- 5 A+ +13.8VDC or battery voltage
- 6 BUSY Busy line of data bus; 5V logic
- 7 BUS+ High side of bus data: 180° out of phase with BUS-; 5V logic
- 8 UNAVAILABLE Not supported
- 9 VIP OUTPUT 1 Vehicle interface output port 1
- 10 PTT* Push-To-Talk initiates a transmission; 5V logic
- 11 TX- (LINE2-) Transmit low use with all desksets (TX low for four-wire operation)
- 12 DIG_GND Ground for 5V logic signals
- 13 VIP INPUT 1 Vehicle interface input port 1
- 14 REMOTE_RX+ (SPKR_HI) Remote deskset speaker high output (CAUTION: grounding this pin will result in damage to the radio) (Speaker high output)
- 15 REMOTE_RX- (SPKR_LO) Remote deskset speaker low output (CAUTION: grounding this pin will result in damage to the radio) (Speaker low output)
- 16 RX- (LINE1-) Receive low used with TRC desksets (TX and RX low for two-wire operation, RX low for four-wire operation)
- 17 TX_AUD (AUD_TX) Transmit audio used for telephone interconnect
- 18 VIP OUTPUT 3 Vehicle interface output port 3
- 19 BUS- Low side of bus data: 180° out of phase with BUS+; 5V logic
- 20 RESET Data bus reset line; 5V logic
- 21 5V 5V for logic circuits
- 22 VIP INPUT 3 Vehicle interface input port 3
- 23 VIP OUTPUT 2 Vehicle interface output port 2
- 24 MONITOR* Allows activation of monitor (used with MRTI telephone interconnect)
- 25 SPKR_UNMUTE Signal indicating if the Consolette is receiving valid audio

J3

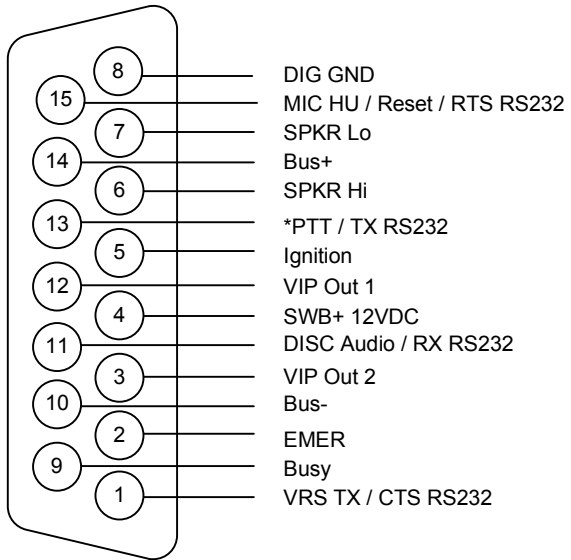
Pin Signal Name Description

- 1 RS232_RXD (NC) RS232 receive data (pin not used on TRC)
- 2 ANA_GND Ground: audio or analog
- 3 AUX_RX_AUD External SECURENET not supported by the Consolette
- 4 FILT_AUD (DET_AUD) RX filtered audio (RX detect or discriminator audio)
- 5 A+ +13.8 Vdc or battery voltage
- 6 BUSY Busy line of data bus; 5V logic
- 7 BUS+ High side of bus data: 180° out of phase with BUS-; 5V logic
- 8 BUS_SHLD Ground for data bus; logic ground
- 9 VSENSE1 (RS232_RXD) External SECURENET not supported by the Consolette (RS232 receive data)
- 10 VSENSE1_SHLD Ground for VSENSE; analog ground
- 11 TAPE_OUT Tape recorder audio output
- 12 DIG_GND Ground for 5V logic signals
- 13 EMER Activates emergency MDC1200 transmission
- 14 RS232_TXD (NC) RS232 transmit data (pin not used on TRC)
- 15 RS232_RTS (NC) RS232 request to send (pin not used on TRC)
- 16 RS232_CTS (PS_AUD_OUT)† RS232 clear to send (external SECURENET not supported by the Consolette)
- 17 AUX_TX_AUD External SECURENET not supported by the Consolette
- 18 SWB+ Switched +13.8 Vdc or battery voltage
- 19 BUS- Low side of bus data: 180° out of phase with BUS+; 5V logic
- 20 RESET Data bus reset line; 5V logic
- 21 NC Currently not used
- 22 NC (RS232_TXD) Pin not used on AIB (RS232 Transmit data)
- 23 VSENSE2 (RS232_RTS) External SECURENET not supported by the Consolette (RS232 request to send)
- 24 VSENSE2_SHLD Ground for VSENSE; analog ground
- 25 NC (RS232_CTS) Pin not used on AIB (RS232 clear to send)

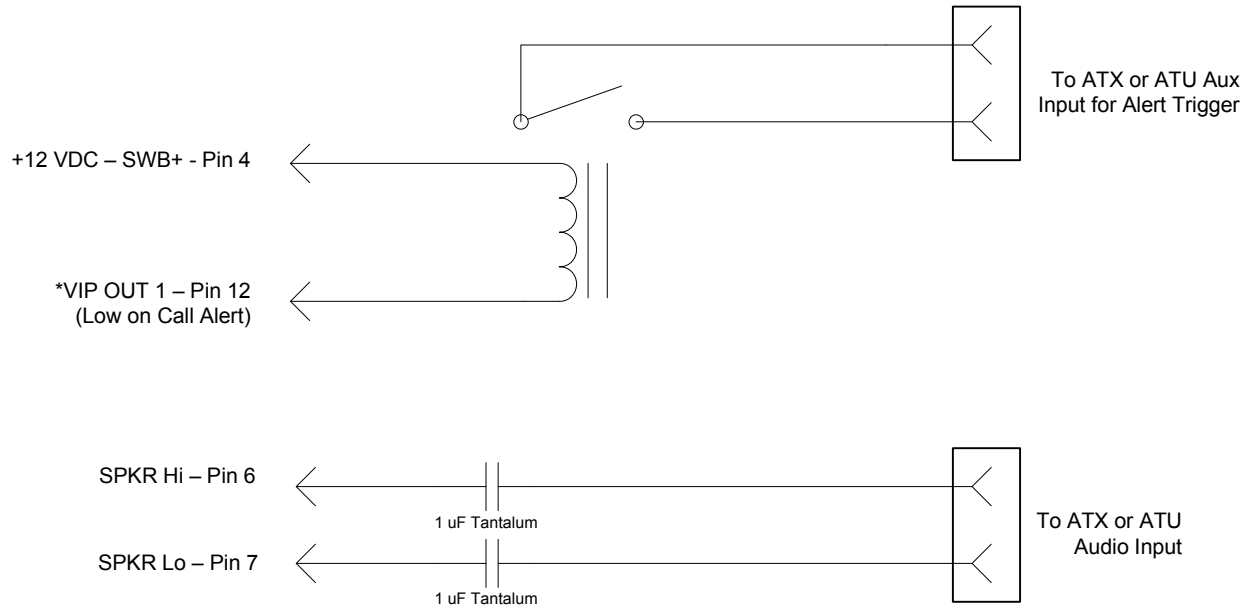
Motorola XTL Connections for ATX RX Audio and Backup Call Alerting



Motorola Astro Spectra Connections for ATX RX Audio and Backup Call Alerting



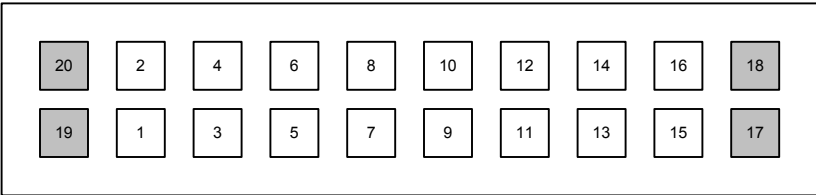
J2 Rear Accessory Connector



Motorola CDM Connectors

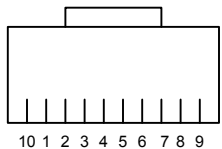
- 1 – SPK-
- 2 – EXT_MIC_AUD
- 3 – DIGITAL IN #1
- 4 – DIGITAL IN #2
- 5 – TX_AUD_IN
- 6 – DIGITAL IN #3
- 7 – GROUND
- 8 – DIGITAL IN #4
- 9 – ANALOG IN #1
- 10 – IGNITION
- 11 – FLAT_RX_AUD_OUT
- 12 – DIGITAL IN #7
- 13 – SWITCHED B+
- 14 – DIGITAL IN #8
- 15 – RSSI
- 16 – SPK+

J2
Radio Rear

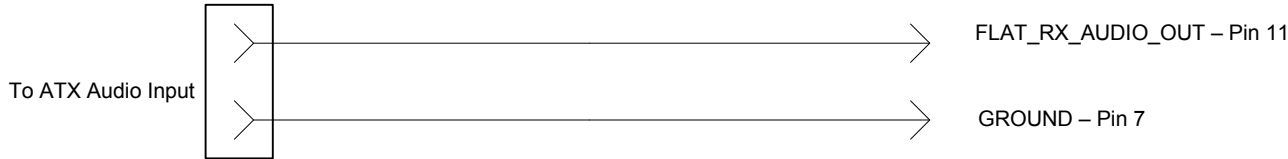


Front Mic Connector

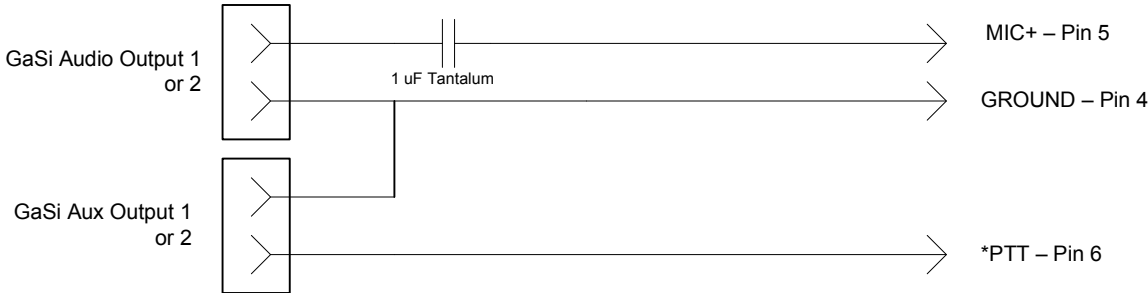
- 1 – A+
- 2 – 5V DC
- 3 – *HOOK
- 4 – GROUND
- 5 – MIC+
- 6 – *PTT
- 7 – BUS+
- 8 – RX HANDSET AUDIO
- 9 – ANALOG INPUT 3
- 10 – ANALOG INPUT 2



Interface to ATX (NOTE: No Relay Control)



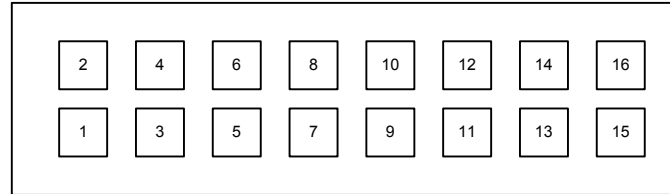
Interface to GaSi (NOTE: NO COR DETECTION)



Motorola Maxtrac Connection for GaSi

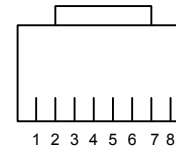
- 1 – EXT SPK-
- 2 – EXT_MIC_AUD
- 3 – *MIC PTT
- 4 – EXT ALARM
- 5 – TX_AUD_IN
- 6 – PROG IO 6
- 7 – GROUND
- 8 – PROG IO 8
- 9 – *EMERGENCY
- 10 – IGNITION
- 11 – FLAT_RX_AUD_OUT
- 12 – PROG IO 12
- 13 – SWITCHED A+ SENSE
- 14 – PROG IO 14
- 15 – INT SPK+
- 16 – EXT SPK+

J2
Radio Rear

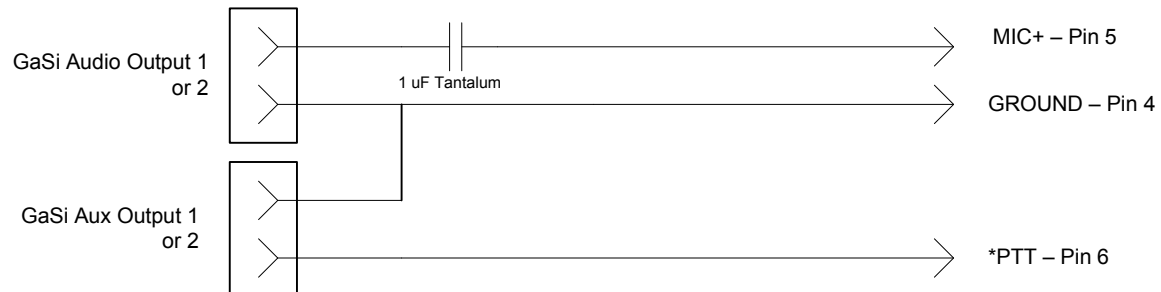


Front Mic Connector

- 1 – A+
- 2 – 5V DC
- 3 – *HOOK
- 4 – GROUND
- 5 – MIC+
- 6 – *PTT
- 7 – BUS+
- 8 – RX HANDSET AUDIO



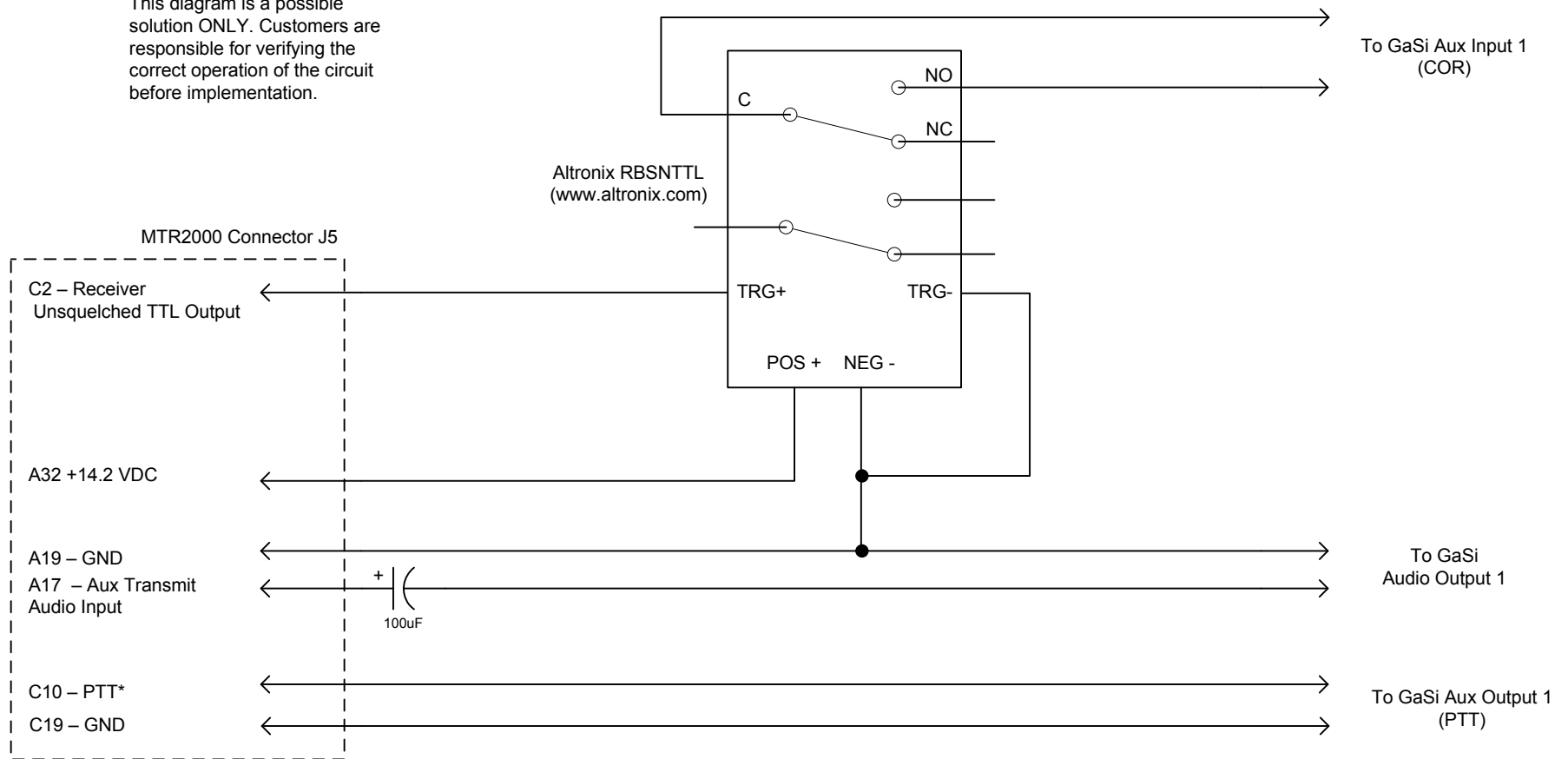
Interface to GaSi (NOTE: NO COR DETECTION)



Motorola MTR2000 to GaSi Interface

DRAFT

This diagram is a possible solution ONLY. Customers are responsible for verifying the correct operation of the circuit before implementation.



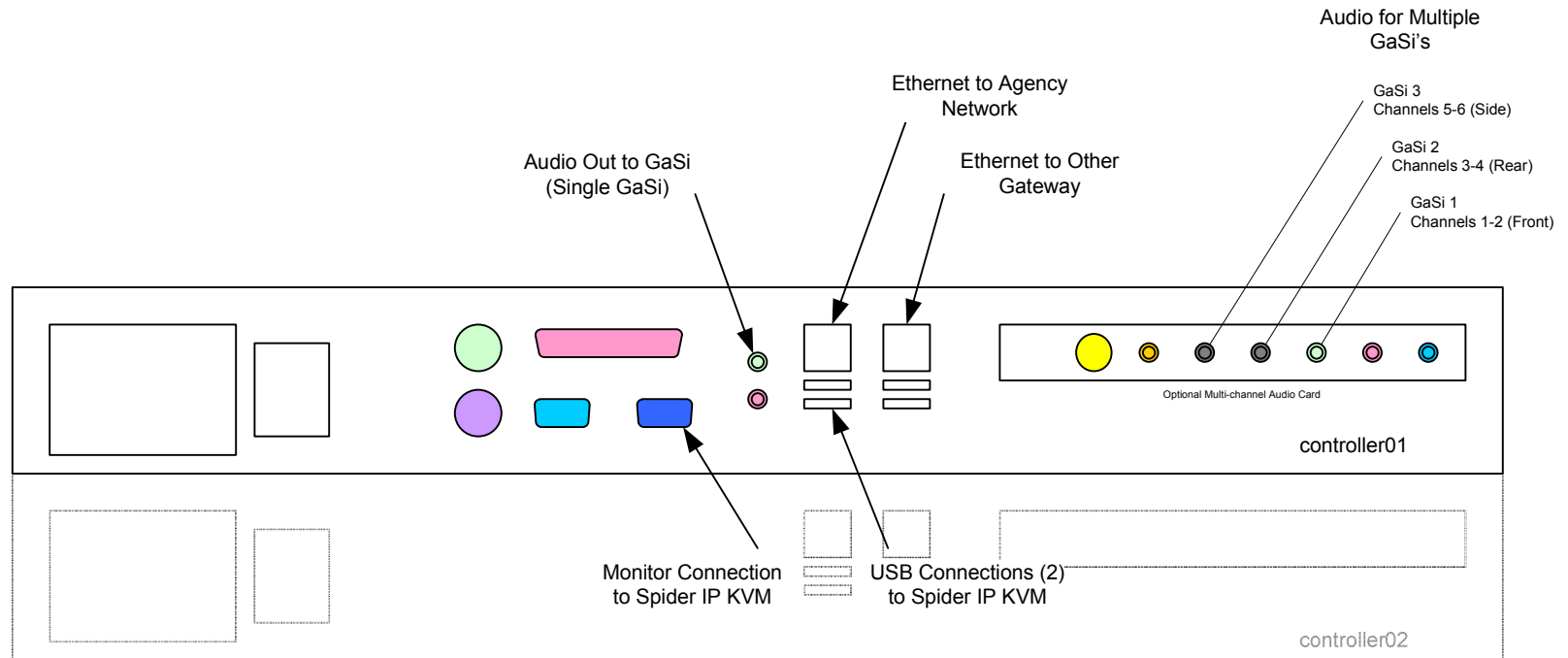
NOTES:

The Aux Transmit Audio Input level sensitivity must be correctly set using the RSS. USDD does not have recommended settings for this input.

The PTT input must be mapped to "Wire line and Auxiliary Audio" using the RSS.

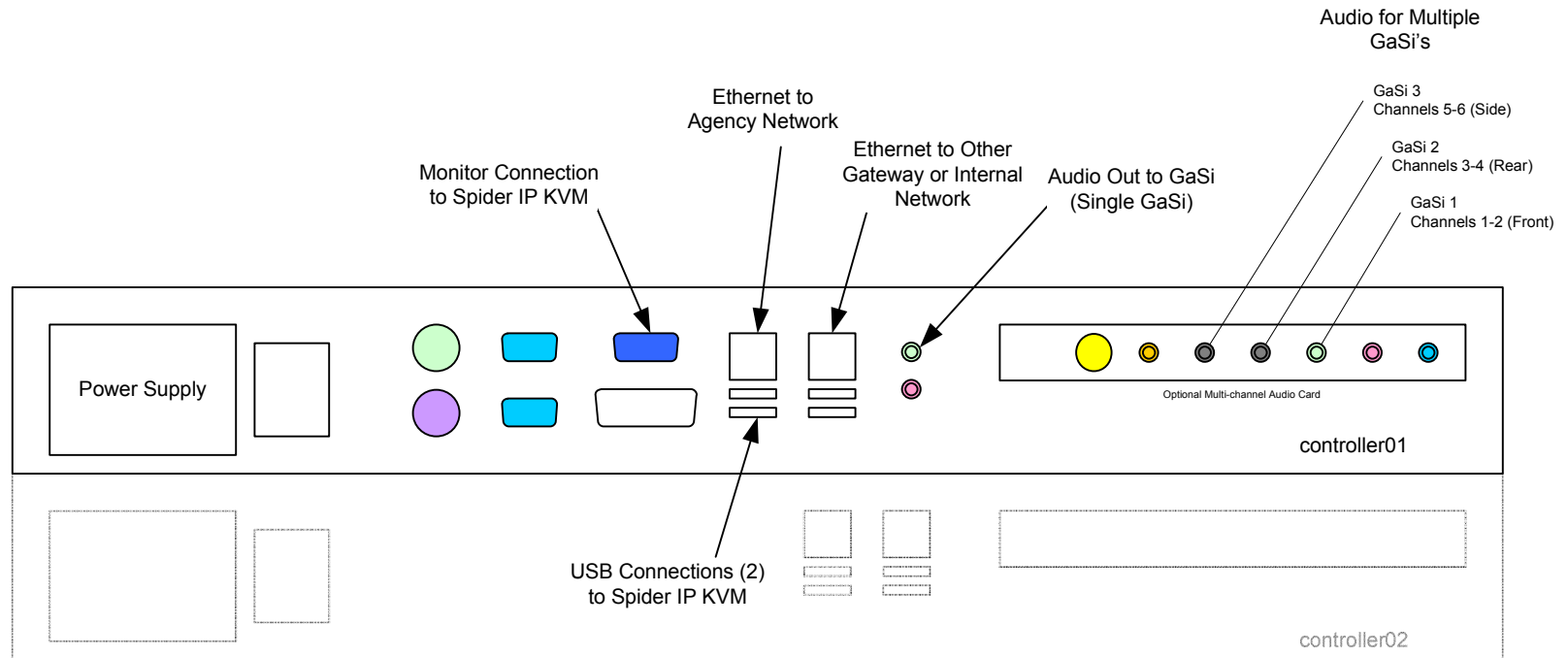
Phoenix G2 Communications Gateway

Rear Panel View of Single Gateway
(One of Two Gateways in the System)



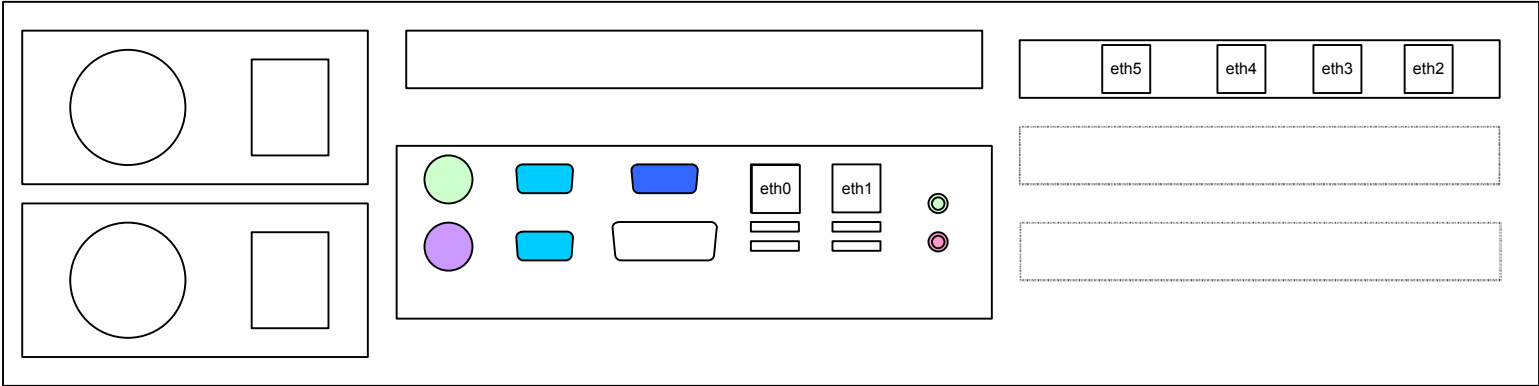
Phoenix G2 Communications Gateway

Rear Panel View of Single Gateway – Core i5
(One of Two Gateways in the System)

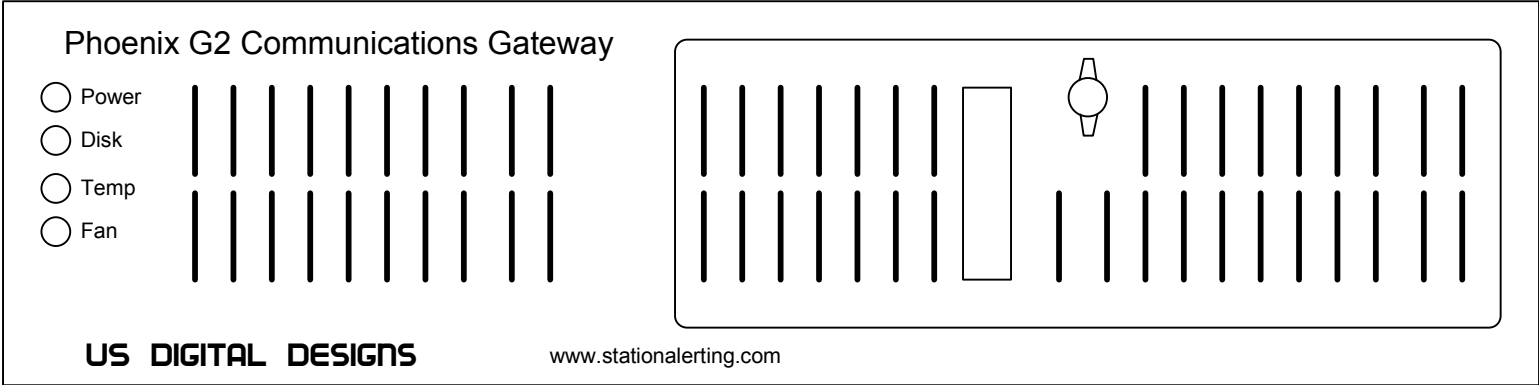


Phoenix G2 Communications Gateway

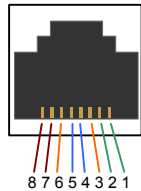
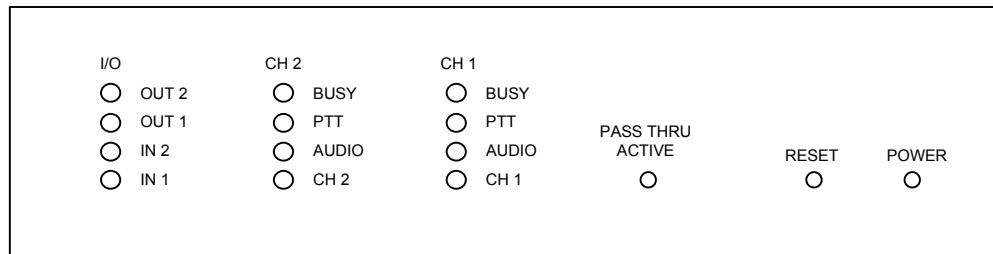
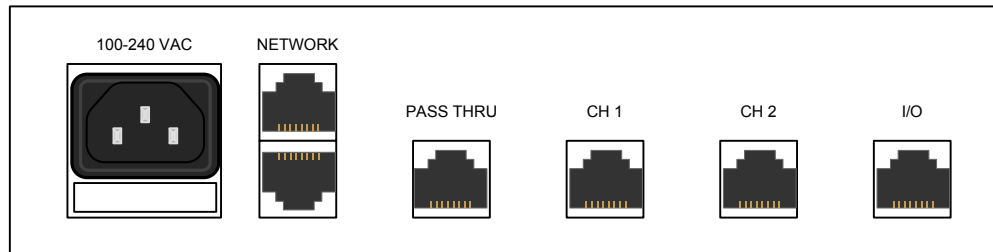
Rear Panel View of Single Gateway – Core i7 2RU
 (One of Two Gateways in the System)



eth0 – Agency Network
 eth1 – USDD Private Network
 eth2 – Radio System DMZ Network
 eth3 – CAD Network (only if required)
 eth4 - Available
 eth5 - Available



Gateway Radio Interface (GaRI)



PASS THRU Connector

- 1 & 2 – Push-to-Talk In
- 3 & 6 – Transmit Audio In
- 4 & 5 – Sidetone In
- 7 & 8 – Busy In

CH1 and CH2 Connectors

- 1 & 2 – Push-to-Talk Out
- 3 & 6 – Transmit Audio Out
- 4 & 5 – Sidetone Out
- 7 – /Busy In
- 8 – Logic Ground

I/O Connector

- 1 & 2 – NO Relay Output 1
- 3 & 4 – NO Relay Output 2
- 5 – /Input 1
- 6 – Logic Ground
- 7 – /Input 2
- 8 – Logic Ground