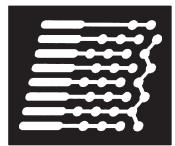

AUDIOARTS 08

RADIO CONSOLE



AUDIOARTS ENGINEERING

TECHNICAL MANUAL
December 2015



AUDIOARTS Radio Console Technical Manual

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AUDIOARTS 08 Technical Manual

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Installation and Power

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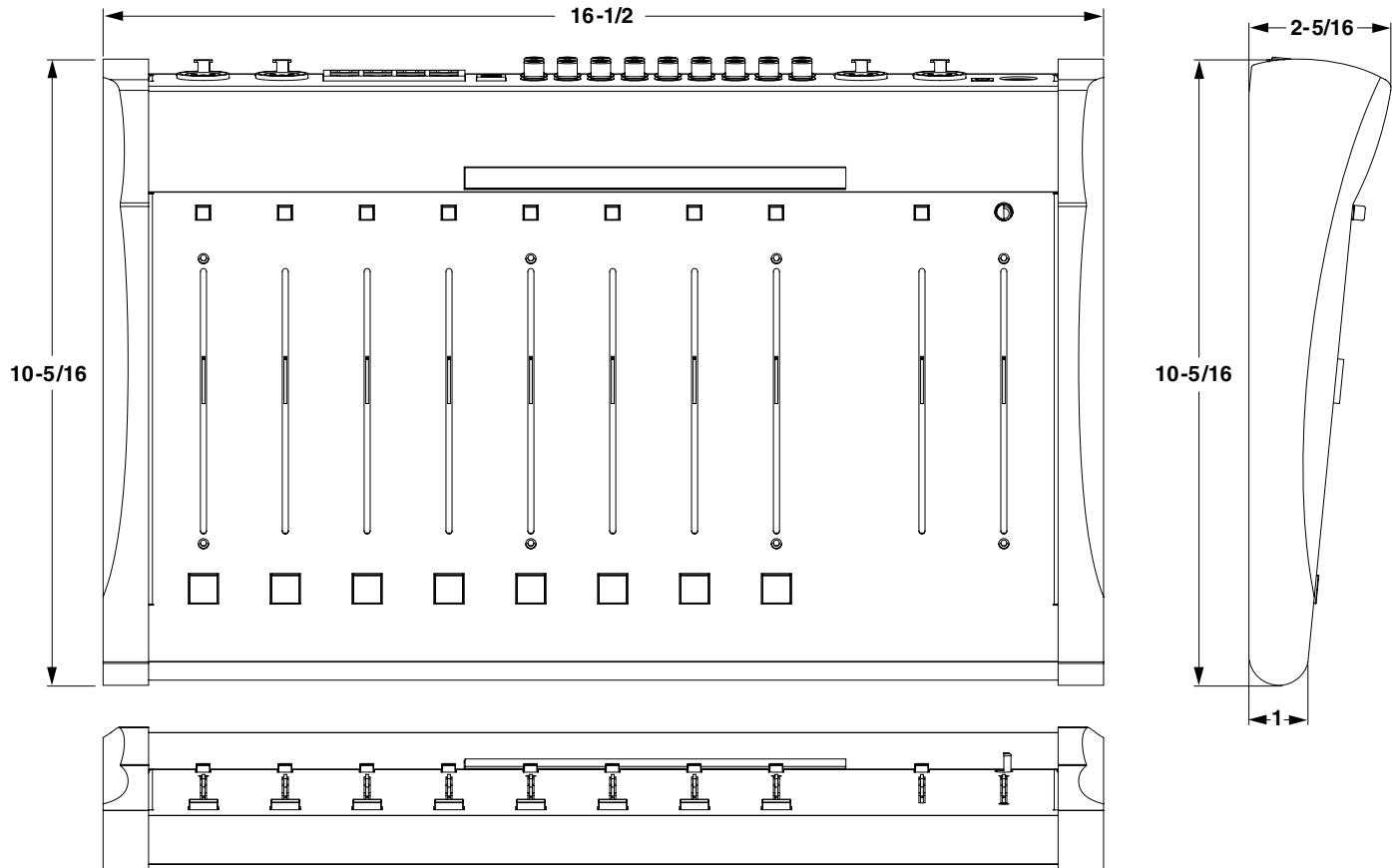
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Installation and Power

Unpacking and Installing the Console

The AUDIOARTS 08 console with its power supply, AC connecting cable, and Installation and Connections Quick Reference is shipped in one packing box. The console can be unpacked by one person by grasping the console at both sides, and lifting it upward out of the box. Remove packing materials and store them in the box for future use. Carefully place the console on your countertop (the AUDIOARTS 08 audio console is designed for countertop placement). Avoid proximity to any electromagnetic fields, such as large power transformers, motors, and fluorescent lighting fixtures.

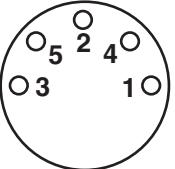
NOTE: This console contains static-sensitive devices. Normal precautions against static discharge should be observed.



Power Supply

The AUDIOARTS 08 console is powered by a factory supplied power adapter with 100-240V/50-60Hz input, 25W maximum output power, and a 4 foot long output cable.

DC Power Output Pinout

	PIN #	OUTPUT
	1	COM
	2	COM
	3	+5VDC
	4	-15V
	5	+15V



The power supply adapter is supplied with a 3-wire grounded AC cord that should be plugged into a “clean” AC power source, that is, an AC source that feeds only the control room audio gear. This source should be a separate feed from those powering lighting, air-conditioning, or any other non-audio machinery.

The power feed recommended in the text is often installed and referred to in studios as an “isolated AC ground” outlet. It is usually orange in color.

Energizing

Assuming the AUDIOARTS 08 console mainframe is properly placed, and its power supply correctly connected to the console, you may now energize the power supply adapter by plugging it into the AC mains. The console’s switches will assume factory default settings.

Note: To de-energize the console, unplug the power supply adapter’s AC cord from the AC mains. **Never de-energize the console by disconnecting the cable that connects the console and power supply adapter together.**

Once you have verified proper power-up, unplug the rackmount power supply to de-energize the control surface. You may now proceed to wire up audio and control connections

Audio and Control Wiring

All audio I/O connections to the AUDIOARTS 08 console are made via XLR, RCA and RJ-45 connectors located on the rear panel of the console.



Two XLR female connectors are provided to bring balanced mono microphone level signals into the console for control by the first two (microphone) faders. These XLR connectors are wired “pin 2 hot.”

Six RJ-45 connectors are provided to bring balanced stereo line level signals into the console for control by (line) faders three through six and eight. Four pairs of RCA jacks are provided to bring unbalanced stereo line level signals into the console for control by (line) faders three through six.

The MXM-TB OUT RJ-45 connector is provided to bring the stereo balanced line level MXM output and the mono unbalanced line level TB OUT out of the console.

A stereo balanced CALLER input signal is provided on the CALLER IN RJ-45 connector for fader seven. One pair of RCA jacks (CALLER) is provided to bring in an unbalanced stereo CALLER signal. Note that most phone hybrids are mono, so if you are using fader seven for a phone caller you will need to wire the mono caller signal to both left and right inputs in parallel. If you are not using fader seven for a caller input you can use it for a stereo source.

One pair of RCA jacks (EXT) is provided to bring an additional stereo line level signal into the console for use by the monitor circuits.

One pair of RCA jacks is provided to bring stereo program output out of the console as unbalanced -10dB signal. Two XLR male connectors are provided to bring the stereo program output out of the console as balanced line level +4dBu signal.

One pair of RCA jacks is provided to bring the stereo monitor output out of the console as separate (left and right) unbalanced line level signals at a nominal level of -2dBu (equivalent to one side of a balanced +4dBu output).

One pair of RCA jacks is provided to bring the mono cue (L) out of the console and the talk in (R) to the console as an unbalanced line level signal (nominal -10dBu).

The TALLY OUT RJ-45 connector is provided to hook up an interface to an Air Tally light. This output comes from a set of relay contacts and is designed to switch a low DC voltage (30 VDC maximum) at a moderately low current (2 ADC maximum) to activate a DC light, or to activate an external DC relay which can then be used to activate an AC operated light. ***Never bring AC power into the console on this or any other connector.***

The USB type B connector in the center of the rear panel is used for interfacing with a computer (see page 2-5 for details).

A 5-pin DIN connector is provided to accept console power from the external power supply.

There is also a phantom power 2.5mm +48V IN power jack as a way to connect external power source (not provided) for condenser microphones and direct boxes.

One TRS jack is provided on the right side of the console frame for the operator to plug in a set of headphones. This is wired as a standard headphone jack, with the left signal on the tip, the right signal on the ring, and the sleeve connected to ground.



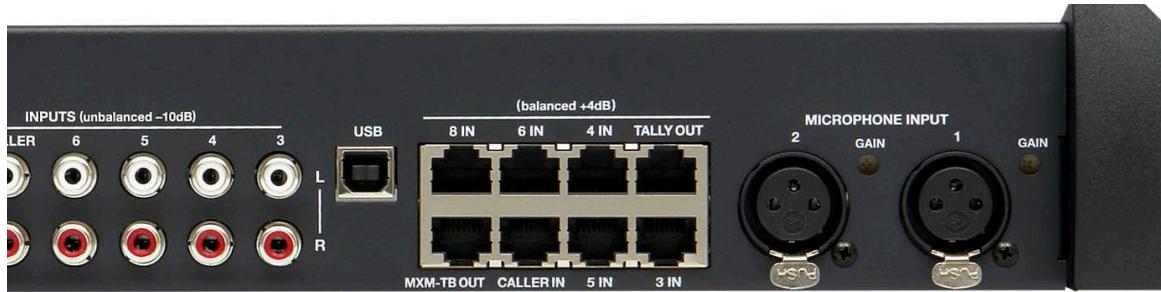
Unbalanced Connections (analog audio)

ANALOG INPUTS – Wire to the console (other than the RJ-45 connectors) with typical shielded two conductor cable (like Belden 9451), just as if you were connecting a balanced source. At the unbalanced source machine's output, connect the black wire (LO) to the shield.

ANALOG OUTPUTS — The AUDIOARTS 08 console's PGM line level analog outputs are electronically balanced, low impedance, outputs, expecting a minimum load of 600 ohms. The outputs are balanced but not floating. Therefore, **care must be exercised when connecting them to an unbalanced system**. While temporarily shorting the low side of the output signal to ground will not cause any problems, continued operation under these conditions will result in increased distortion, decreased reliability, and possible oscillation problems. **If you must connect this output to an unbalanced system, be sure to leave the low side unterminated, and connect the unbalanced system to the high side output and shield connections only.**

Hook-Ups

The rear of the console has multiple RJ-45 and RCA connectors to plug in four stereo line inputs, caller and external inputs, as well as providing program, monitor, cue, MXM-TB, and tally output connections. There are also two female XLR connectors provided for microphone MIC 1 and MIC 2 inputs and two male XLR connectors for program output connection.



MIC 1 and MIC 2 Inputs – XLR

All signals are analog mono. The mic input level is normally -50dBu balanced.

XLR 1 Pin 1 – SH	Mic 1 In
XLR 1 Pin 2 – HI	
XLR 1 Pin 3 – LO	
XLR 2 Pin 1 – SH	Mic 2 In
XLR 2 Pin 2 – HI	
XLR 2 Pin 3 – LO	

LINE 3 IN through LINE 6 IN and LINE 8 IN – RJ-45

All signals are analog stereo. The line input level is normally +4dBu balanced.

RJ-45#3 Pin 1 – HI	Line 3 Lt In
RJ-45#3 Pin 2 – LO	
RJ-45#3 Pin 3 – HI	Line 3 Rt In
RJ-45#3 Pin 6 – LO	
RJ-45#4 Pin 1 – HI	Line 4 Lt In
RJ-45#4 Pin 2 – LO	
RJ-45#4 Pin 3 – HI	Line 4 Rt In
RJ-45#4 Pin 6 – LO	
RJ-45#5 Pin 1 – HI	Line 5 Lt In
RJ-45#5 Pin 2 – LO	
RJ-45#5 Pin 3 – HI	Line 5 Rt In
RJ-45#5 Pin 6 – LO	
RJ-45#6 Pin 1 – HI	Line 6 Lt In
RJ-45#6 Pin 2 – LO	
RJ-45#6 Pin 3 – HI	Line 6 Rt In
RJ-45#6 Pin 6 – LO	
RJ-45#8 Pin 1 – HI	Line 8 Lt In
RJ-45#8 Pin 2 – LO	
RJ-45#8 Pin 3 – HI	
RJ-45#8 Pin 6 – LO	

Four pairs of RCA jacks (3 - 6) are for analog stereo unbalanced -10dBu signals. The top RCA jack is Left and bottom RCA jack is Right for each channel.



CALLER IN – RJ-45

The signal is analog stereo, +4dBu balanced.

RJ-45 Pin 1 – HI	]	Caller Lt In
RJ-45 Pin 2 – LO	]	Caller Lt In
RJ-45 Pin 3 – HI	]	Caller Rt In
RJ-45 Pin 6 – LO	]	Caller Rt In

NOTE:

If you are using this input with a mono caller signal from a phone hybrid you will need to wire to left and right inputs in parallel.

MXM-TB OUT – RJ-45

The MXM signal is analog stereo and the TB signal is mono. Both signals are +4dBu balanced.

RJ-45 Pin 1 – HI	]	MXM Lt Out
RJ-45 Pin 2 – LO	]	MXM Lt Out
RJ-45 Pin 3 – HI	]	MXM Rt Out
RJ-45 Pin 6 – LO	]	MXM Rt Out
RJ-45 Pin 7 – HI	]	TB Out
RJ-45 Pin 8 – LO	]	TB Out

TALLY OUT – RJ-45

Relay closure, 30VDC, 2A maximum.

RJ-45 Pin 4 – Tally N.O.	
RJ-45 Pin 5 – Tally COM	

PGM OUT – XLR

The signal is analog stereo, level is +4dBu balanced.

XLR LT Pin 1 – SH	]	PGM Lt Out
XLR LT Pin 2 – HI	]	PGM Lt Out
XLR LT Pin 3 – LO	]	PGM Lt Out
XLR RT Pin 1 – SH	]	PGM Rt Out
XLR RT Pin 2 – HI	]	PGM Rt Out
XLR RT Pin 3 – LO	]	PGM Rt Out



One pair of RCA jacks (PGM) is for analog stereo unbalanced -10dBu PGM Out signal. The top RCA jack is Left and bottom RCA jack is Right for this output.

Console Features

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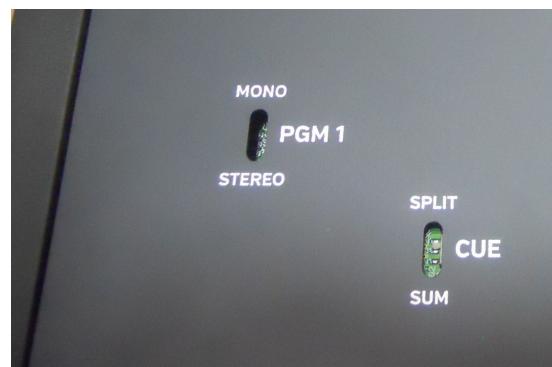
Console Features

Overview

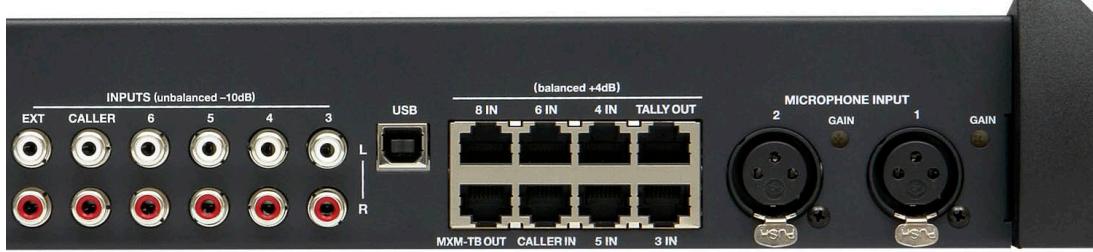
The AUDIOARTS 08 console consists of an input section with eight faders and associated switches, monitor and headphone section with two faders and associated switches.

The basic purpose of the console is to take some of the many audio signals that are wired to the console inputs, and generate several outputs that combine these inputs in various groups and at various degrees of loudness, or signal strength. The typical application is in a radio station where it is desired to develop the signals that the station will broadcast (the on air signal), as well as additional signals for recording and monitoring.

All programming is made via PCB mounted slide switches accessible through openings in the console's bottom panel.



Inputs



The AUDIOARTS 08 console is designed to handle several analog stereo balanced (+4dBu) inputs via RJ-45 connectors or stereo unbalanced (-10dBu) inputs via RCA connectors. Inputs may also include caller audio from a telephone hybrid. Two mono microphone balanced (-50dBu) inputs are also available, and there is one external stereo line level balanced (+4dBu) input that goes directly to control room or meter. A USB connector allows audio to pass between the AUDIOARTS 08 and a computer. There is also a mono TALK IN input that allows an external line level source to directly feed the console CUE output.

Analog Mono Mic Level Inputs

These inputs are used to connect to microphones, which typically put out signals at relatively low signal strength, and therefore require more amplification (increase in signal strength) to be properly audible in the output. Mic level sources are wired to female XLR connectors located on the rear of the console. These mic inputs feed the console's first two faders. The mic preamps are set for a gain of 54dBu, but each mic pre has its own recessed GAIN control, located adjacent to the XLR input connector, to allow field adjustment to compensate for differences in microphone characteristics.

Example: with a microphone input of -60dBm @ 150 ohm at the port, gain trim can set levels from -22dBu to +16dBu (note maximum preamp gain is +76dB) at the PGM output.

Analog Stereo Line Level Inputs

These inputs are typically used to connect to machines, such as tape decks, cart machines, CD players, etc., that provide analog outputs.

Outputs



The console outputs include an MXM-TB output, the program stereo bus, a stereo monitor output, a mono cue output, and a stereo headphone jack.

The console's mono cue signal is provided to drive an external powered speaker, or amplifier and speaker combination, and also provides the cue signal used to interrupt monitor and headphones, if such interrupt has been enabled by the installer.



Program Output

The console's main analog output is the Program stereo bus. The Program stereo output can be programmed to mono output via slide switch, PGM (SW1 on MBA0-1 PCB).

When SW1 is UP the PGM is in mono mode, which sums the left and right PGM channels and sends this mono signal to both left and right channels of the PGM 1 output.

When SW1 is DOWN the PGM is in stereo mode.

Monitor Output

The AUDIOARTS 08 has a CR output designed to drive a stereo pair of powered speakers, or a stereo amplifier driving separate speakers, to allow the operator to listen to PGM 1, or an external signal. The console may be programmed to provide monitor split cue.

Cue to Monitor

The CUE TO MONITOR jumper J1 on the MBA0-1 PCB, when shunted, sends cue to the monitor, whenever a fader is placed in cue.



Split Cue, Monitor

The CUE (SW2 on MBA0-1 PCB) slide switch, when activated (UP), allows a summed (L+R) version of the regular program to be sent to the right side of the monitor stereo output, while CUE is sent to the left side.

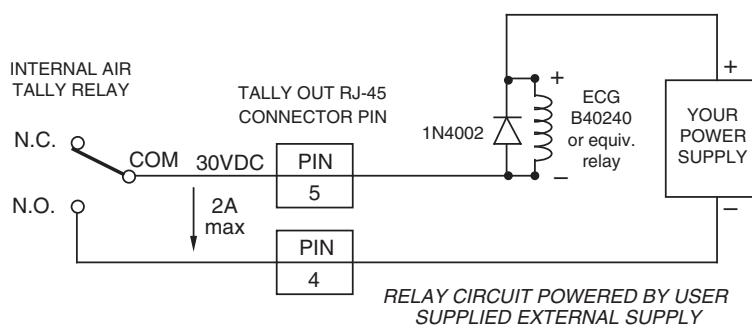
On Air Tally, Muting

For controlling an external “on-air” indicator, a relay is provided. The tally is activated when a mic channel set for monitor mute is turned on. Jumper J2 on the MBA0-1 board is used to enable muting with MIC1, and J3 enables muting with MIC2.

The relay connections are available at the “TALLY” RJ-45 connector mounted on the rear of the console. Connect the on-air light to the external user-provided relay. Do not bring on-air light AC connections to any pin of any connector on the console.

TYPICAL CONTROL ROOM ON-AIR TALLY CIRCUIT

USER-SUPPLIED RELAY TRIGGERED BY CONSOLE CR MUTE CIRCUIT



USB Port

The console contains a USB 2.0 interface, available via the USB Type B connector on the rear panel, to enable audio to pass between the console and a USB port on a computer. Audio coming back from the computer via USB shows up as a stereo analog signal on the Line 8 fader. Audio to the computer will be from the AUDIOARTS 08 PGM bus.



Using the USB Port . . .

Any computer having a USB port and installed drivers capable of passing and utilizing digital audio data should work with the AUDIOARTS 08 USB port. Use a cable having a USB Type B connector on the AUDIOARTS 08 end and a connector on the other end that will mate with the computer's USB port; this will typically be a USB Type A connector.

. . . With a MAC

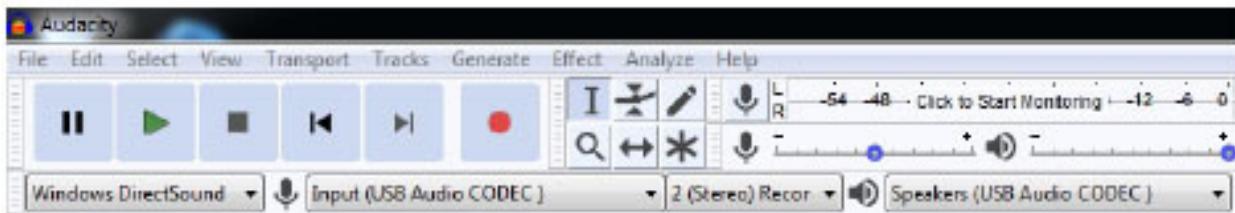
In general, this will be a plug-and-play process. The main concern is to choose the USB Audio Codec under *System Preferences>Sound* as desired for audio input and/or output. Then simply start the application.

. . . With a Windows® PC

When you first connect the AUDIOARTS 08 USB port to a PC running Windows you will see the famous “found new hardware” sequence of messages. At some point this sequence should end with a message that the new hardware is installed and ready to use.

Setting up any given application to use the AUDIOARTS 08 USB port will depend on the application itself. Generally, you will need to select the appropriate device from a list of devices in a Preferences dialog.

As an example, let's look at Audacity. Audacity is a free, easy-to-use, multi-track audio editor and recorder for Windows, Mac OS X, GNU/Linux and other operating systems. It allows you to easily select audio inputs and outputs.



Select the USB Audio CODEC for input and output. You will be able to record audio from the AUDIOARTS 08 console and when you play it back, the audio will appear on the 8 IN fader, unless you have an audio source plugged into the 8 IN RJ-45 connector.

Other Computers

If your computer does not use one of the above operating systems, or otherwise behaves differently than described above, consult the documentation for that computer, operating system, and/or application.

General Considerations

If any problems are encountered, please consider the following points:

- The audio coming back into the AUDIOARTS 08 on the USB port is available at the 8 IN fader.
- If you are not able to get the audio into or out of the USB port, check the USB cable, its connections at both ends, and the port selection settings in the application you are using.
- If you have the audio flowing where you want and it suddenly becomes intermittent or disappears, check the USB cable and the connections at both ends.
- Once you have the USB audio under control it is a good idea to make a record of the application being used, including its version number, the audio direction (into or out of the computer), and all the settings that were required to make it work. This information will be invaluable if you later have to troubleshoot the USB audio, or set it up on another computer.

Controls and Functions

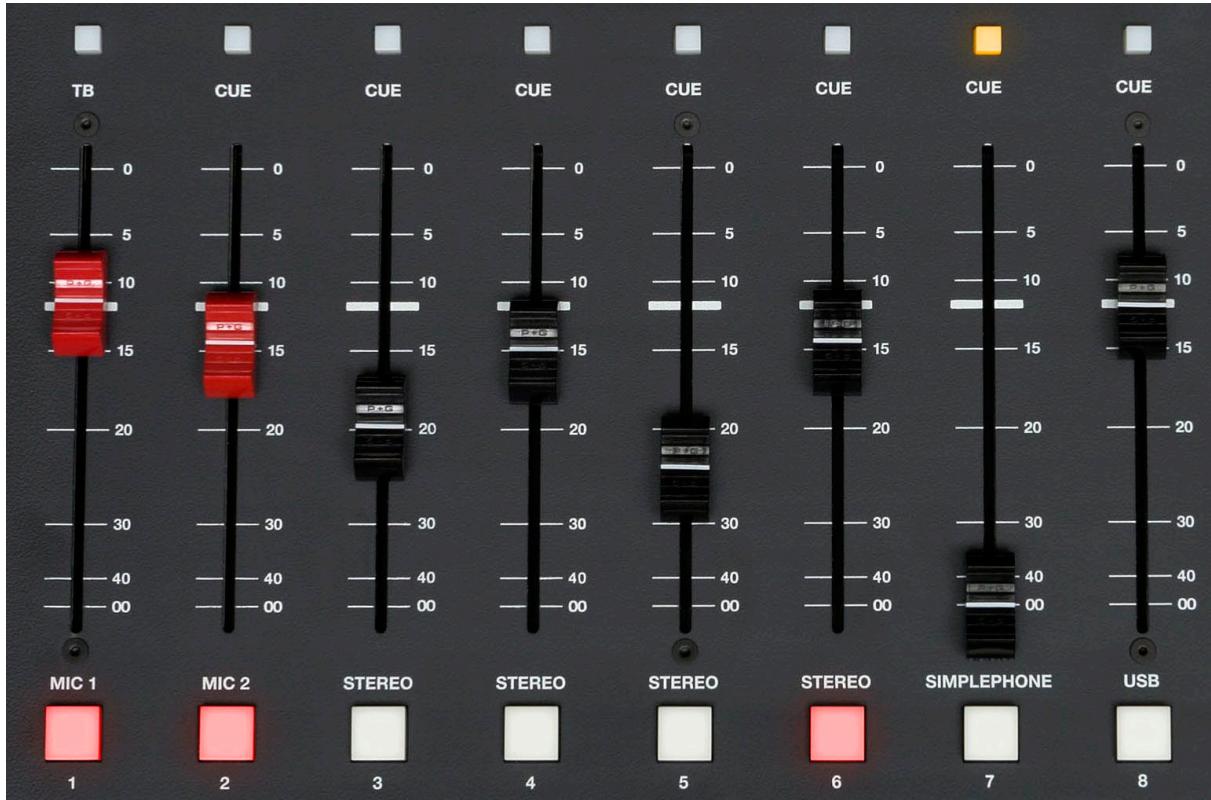
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Controls and Functions

Input Section

The AUDIOARTS 08 Input section consist of two mono microphone input channels, four stereo analog input channels, caller input, and USB input.



Source

The AUDIOARTS 08 console accepts two mono mic input signals via female XLR (faders 1 and 2) and four stereo line level input signals via RJ-45 or RCA connectors (faders 3 - 6). Fader 8 accepts a stereo line level input signal via RJ-45 8IN connector or via the USB port.

MIC 1 and MIC 2 GAIN trim pots at the rear of the console adjacent to the MIC input XLR connectors are used to adjust the gain of each microphone input independently. These are normally “set and forget” adjustments, and are set at the factory for a gain of 54dB, thus bringing a -50dBu microphone input level up to +4dBu at the output.

If you have more than two microphones in use, you will need to provide external mic preamps for all but two of them. These additional mics will not be able to activate the muting and on air tally functions.

The caller input is used for the telephone call-in talk segments, and controls the audio for the caller. The caller signal enters the console from your station hybrid via RJ-45 connector CALLER IN or the two CALLER RCA connectors.

The MXM connections on the MXM-TB OUT RJ-45 connector are used to feed audio back to the hybrid for the caller to hear. The audio going back to the caller will include

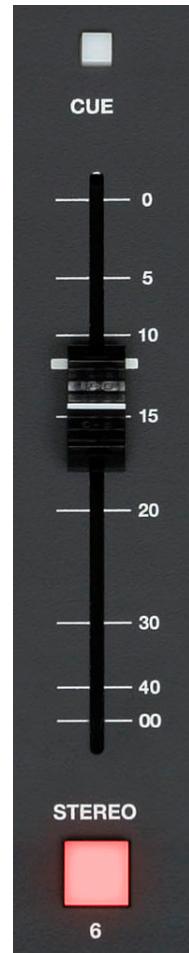
everything on the PGM bus except the caller voice coming from the hybrid to the CALLER input feeding fader 7.

Cue Button

The CUE switch places the channel's signal on the console's cue bus, where it may be heard in the external cue speaker, as an interrupt to the console operator's headphones, and as an interrupt to the monitor speakers, if so programmed.

Press the CUE button. The channel's input signal will be included in the console's CUE output at a level that is independent of the FADER setting, and the button will light. The fader does not need to be turned ON. To remove a fader from cue, press the CUE button again; the light will go off to indicate the channel is no longer assigned to cue.

Note that the MIC2 channel is slightly different, in that the amount of MIC2 audio in CUE *does* depend on the setting of the fader.



TB Button

Pressing the MIC 1 TB switch (a momentary action) sums the MIC 1 audio into the caller's return audio (PGM 1 mix-minus) which goes to the MXM left channel output, on the MXM-TB connector, allowing the board operator to talk to the caller. The MXM right channel output is a "clean feed" (PGM 1 mix-minus audio only) available for use with dual channel codecs as an audience feed. An unswitched talkback audio output (TB OUT) is also available on the MXM-TB connector.

NOTE: The MIC 1 channel fader affects the talkback audio level that feeds the MXM left channel output and the separate TB OUT signal.

Fader

Level is set by a long-throw fader. The fader is the sliding mechanism that determines how strong is the presence of the input in some of the various console outputs.

If the fader is all the way down (that is, pulled toward the console operator), the signal will not be present in the program bus. As the fader is moved up (that is, pushed away from the console operator) the signal will appear more strongly in PGM.

ON Button

The ON button turns the channel on and off by means of electronic switching. The channel is on when the ON button is lit. The mic channels can also be programmed (as mentioned in the previous chapter) to activate monitor mute and on air tally.

Control Room and Headphone Section

Control Room

This is the console operator's monitor that allows the operator to listen to the console's stereo Program output or an external stereo line level input. This section of the console includes the faders for the monitor and headphone, and a cue level control for console cue.

In a typical radio application the console is located in the Control Room. Speakers in the Control Room allow the console operator to listen to the console bus outputs to be assured that the console is performing as desired. These speakers are fed by a stereo signal from the console's monitor output. In addition to the monitor output, the operator may also desire to listen to specific isolated faders via the cue system and an external cue speaker, or may want to listen via headphones. Thus, the control room monitor consists of the above controls, along with an external input (EXT) button.

In some instances the console operator may also be performing talent whose voice will be heard over the radio. The operator's microphone may thus provide a part of the signal that is going out over the air. If that signal is the one being monitored with the Control Room speakers, there is the potential for feedback. The amplified signal from the Control Room speakers is picked up by the microphone and preamplified to a new, higher, level, which then is once again picked up by the microphone. The signal quickly rises to an ear-splitting screech. To prevent this, the operator's microphone is normally set to MUTE the monitor output to prevent the occurrence of feedback.

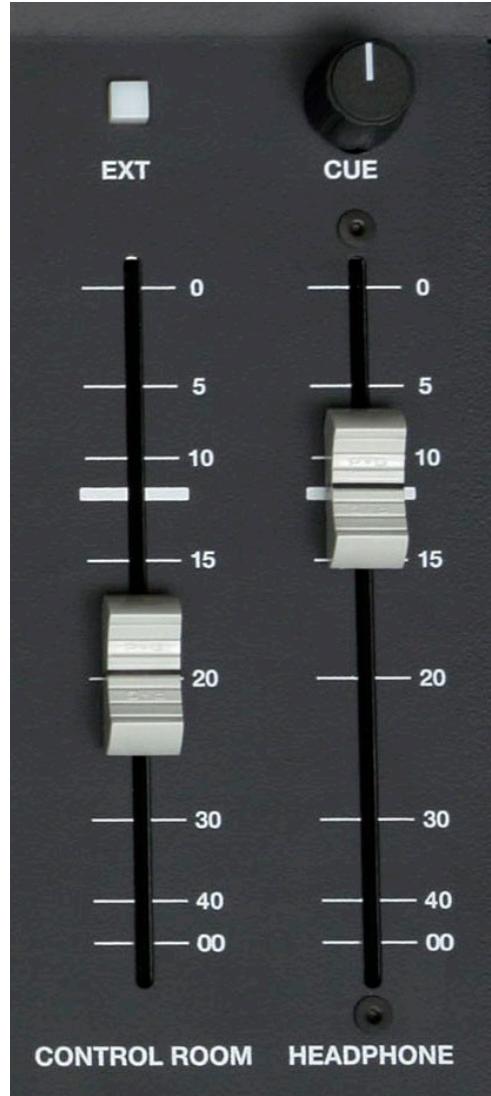
The master CUE circuit can be programmed to interrupt monitor feed, or provide a split feed (program mono sum to right, cue to left) to the monitor speakers. It also automatically interrupts the headphone feed on both sides.

The CUE level control determines the overall loudness of the cue signal.

Pressing the EXT switch allows the operator to pick up the external input (useful for such items as tape recorders or air returns) to listen.

The fader determines the overall loudness of the signal being monitored as it appears in the control room speakers. As the fader slides up, the loudness increases up to a maximum at the top position. To decrease the loudness, slide the fader down.

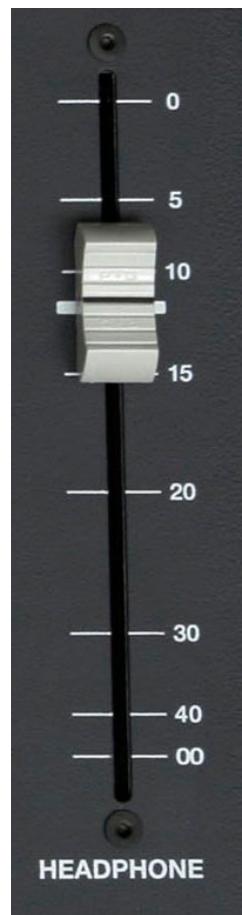
NOTE: If the Control Room is muted and you slide the fader all the way up, then remove the condition that has the Control Room muted, the sound in the Control Room speakers will suddenly be **VERY LOUD!**



Headphone Fader

The HEADPHONE fader determines the overall loudness of the headphone output signal, which monitors the same source (PGM or EXT) as the Control Room speakers.

The headphone output signal appears at the HEADPHONE JACK, located on the right side of the console frame as indicated in Chapter 1. The jack is provided as a place to plug in user-supplied **stereo** headphones. High impedance headphones work best; as the headphone impedance is reduced below about 200 ohms the available level decreases.



Meters



The METERS section consists of one 10-segment VU meter pair on the console's meterbridge.

The VU meter pair is a stereo LED bargraph type meter.

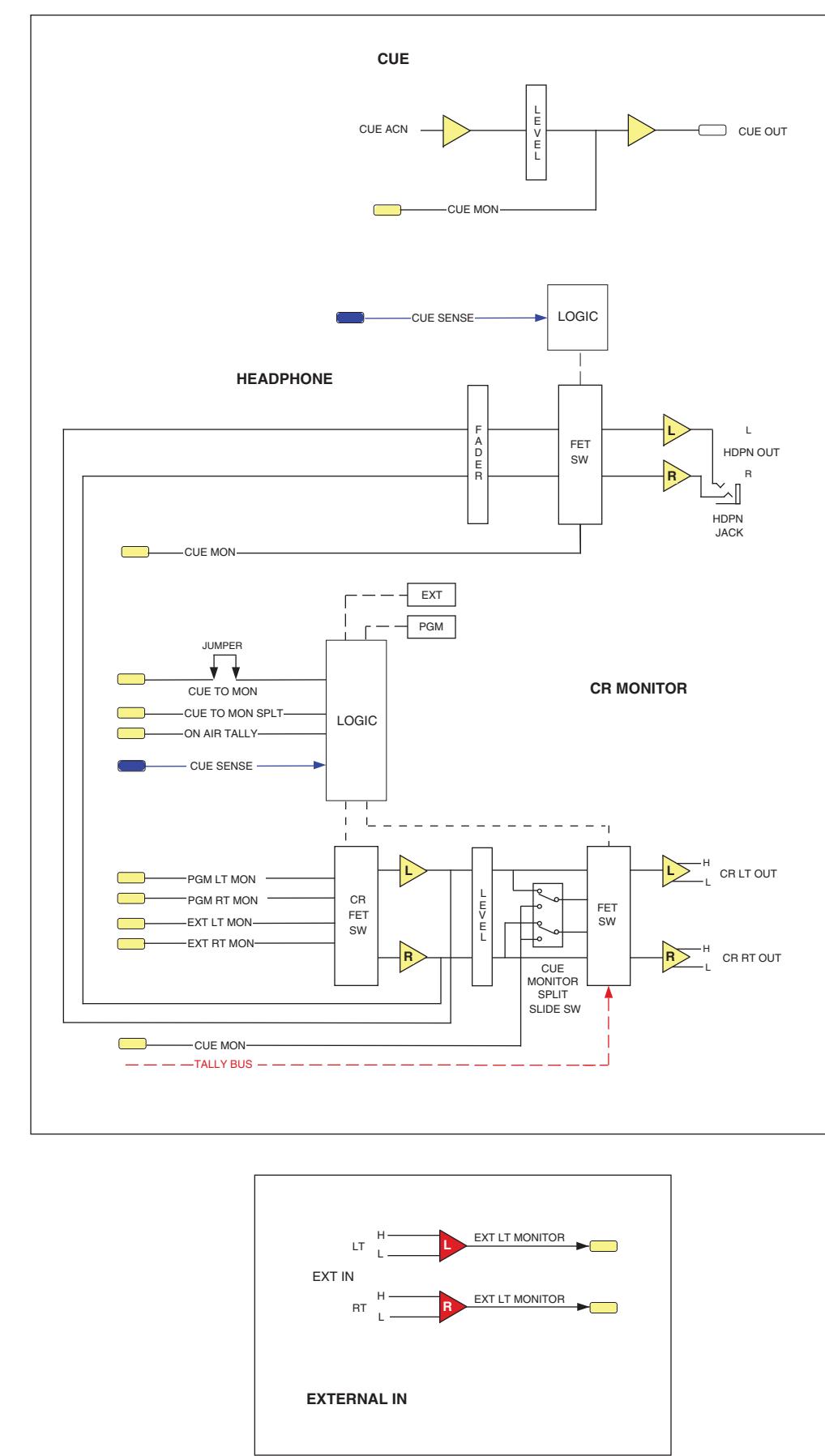
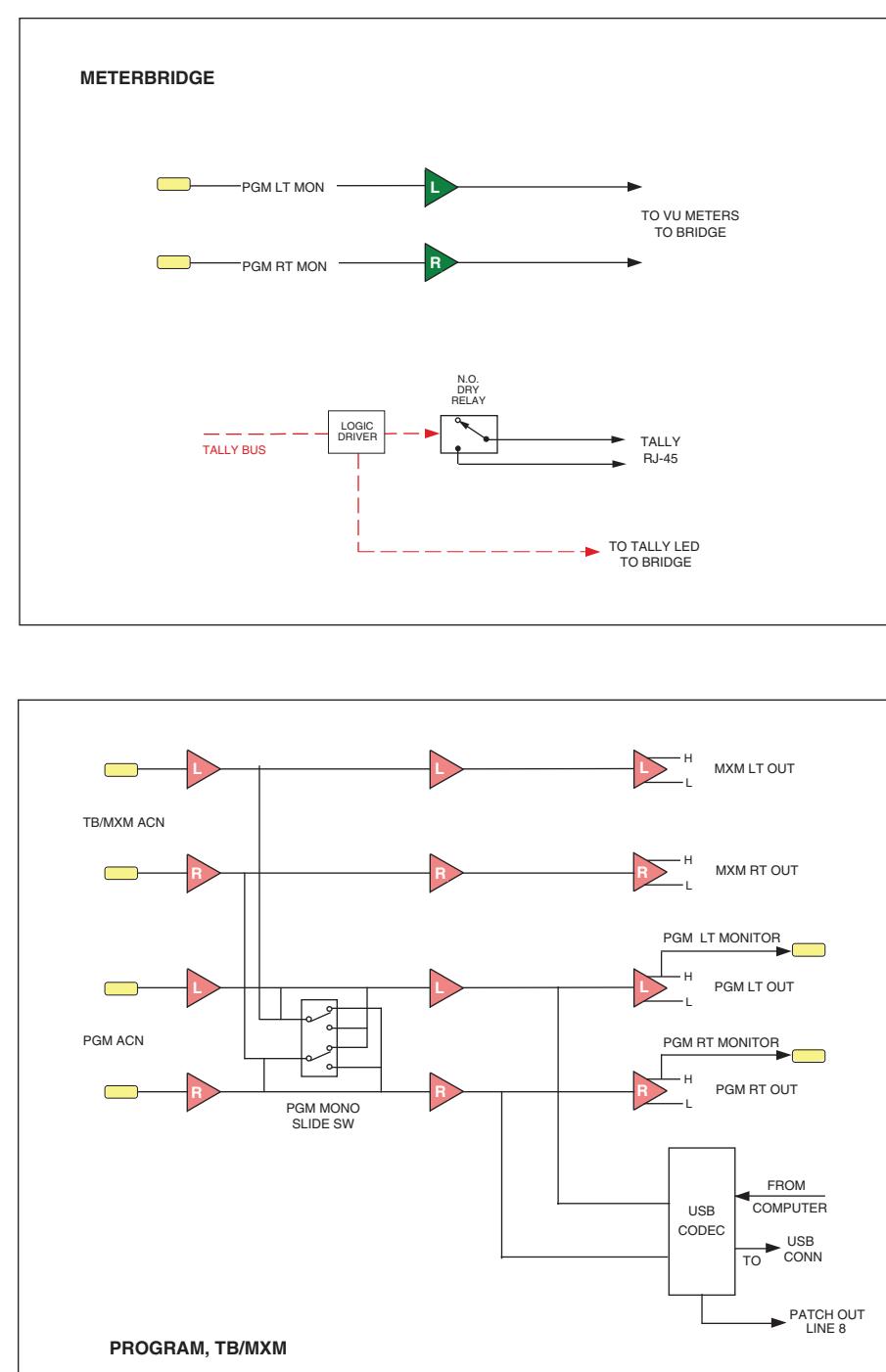
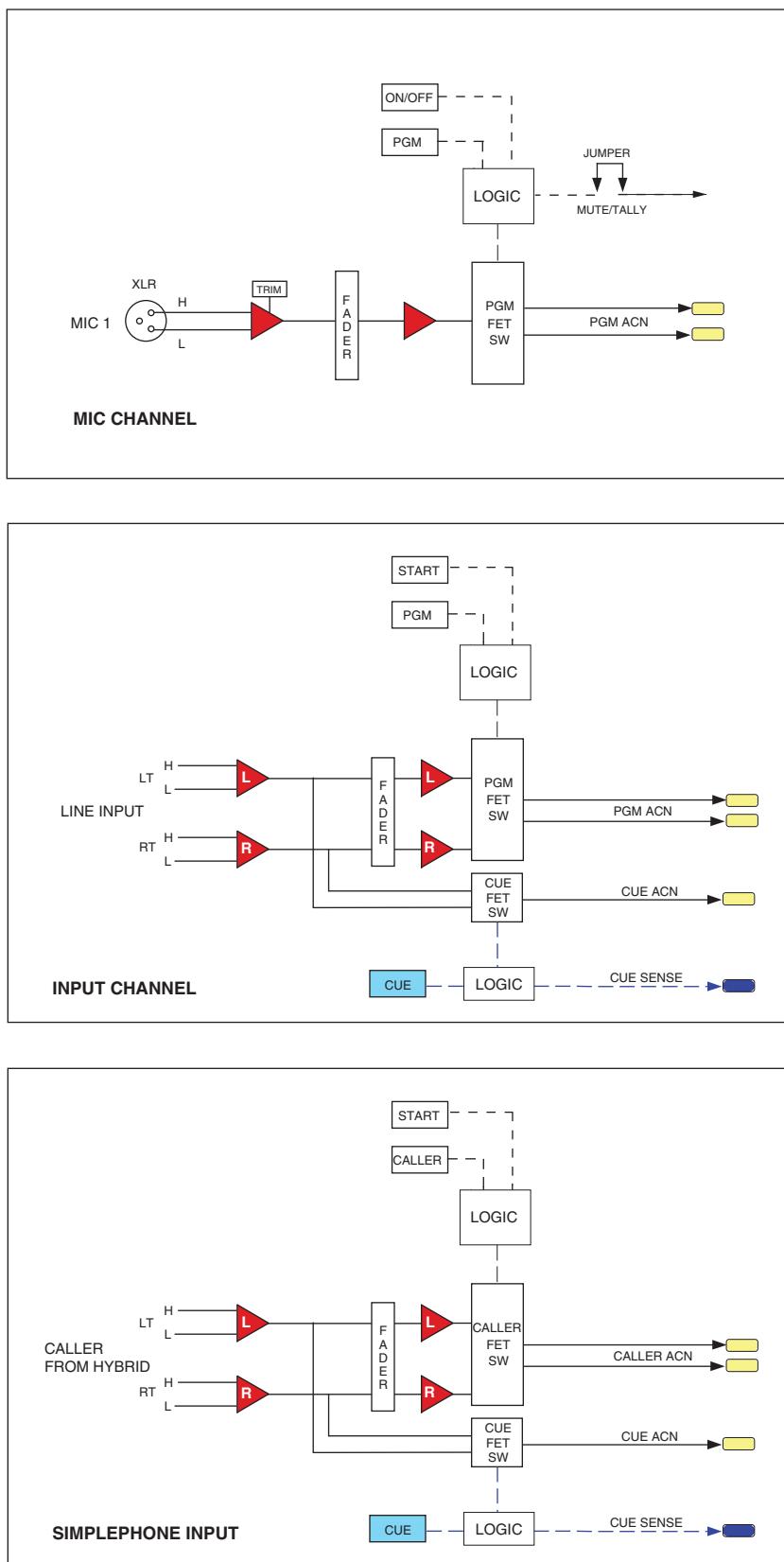
The level of the signal being metered is indicated by the number of display elements that are lighted. The more elements lighted, the stronger is the signal being displayed. The right two LEDs in each bargraph are red to indicate when the signal level is approaching a clipping (distorted) level. The next two LEDs are yellow, indicating a normal level range, and the remaining LEDs are green. The left member of the pair indicates the level of the PGM left channel, while the right member of the pair indicates the level of the PGM right channel.

The ON AIR LED, located in the middle of the meterbridge, lights up when either of the two MIC channels is ON, assuming they are set for mute and tally.

Schematic and Load Sheet Drawings

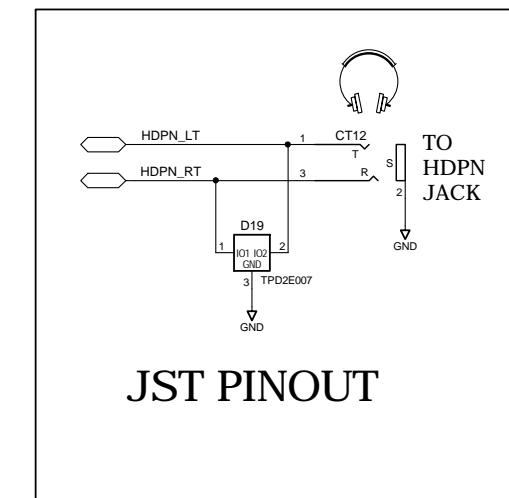
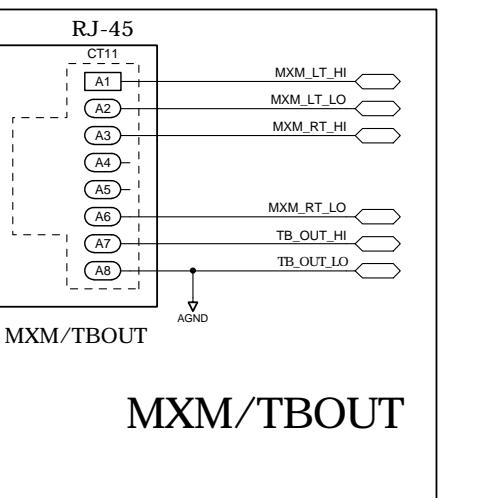
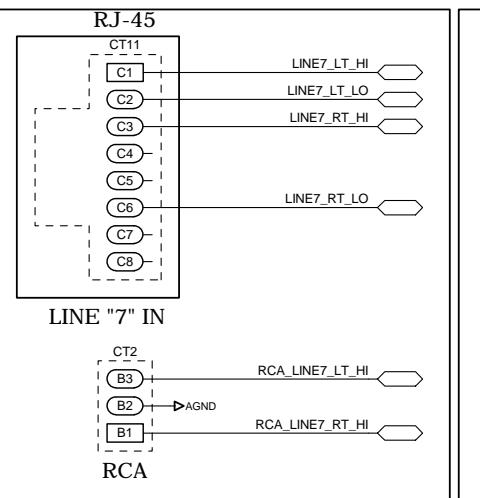
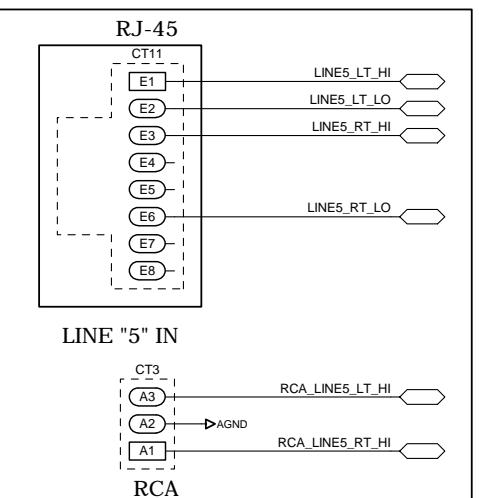
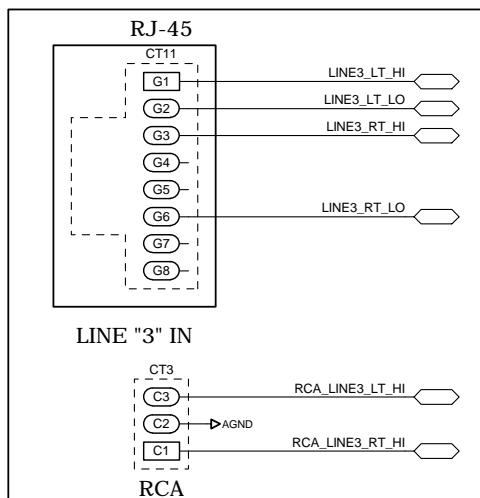
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Schematic	4-3
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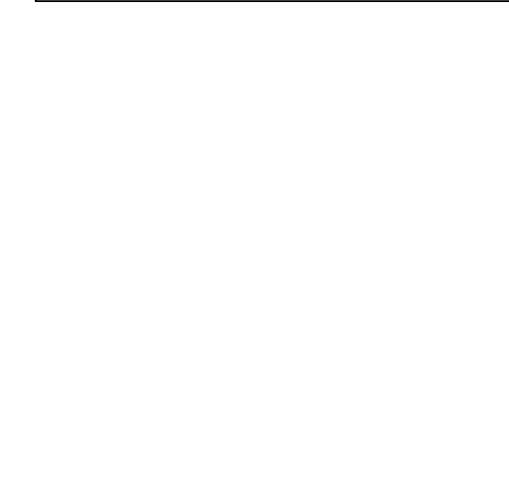
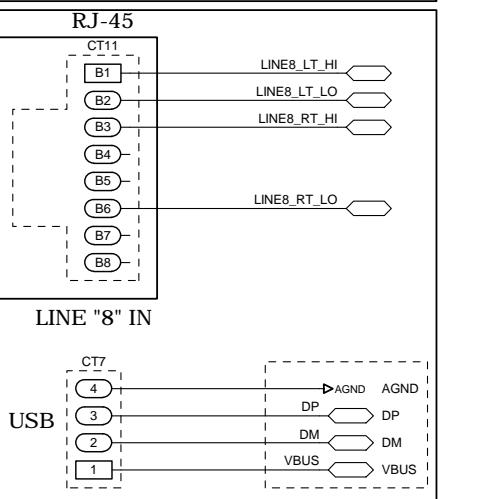
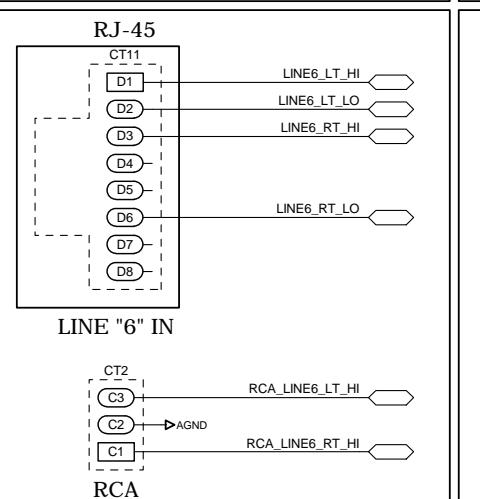
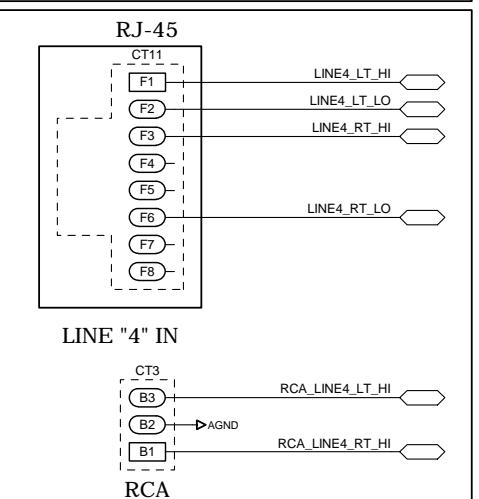
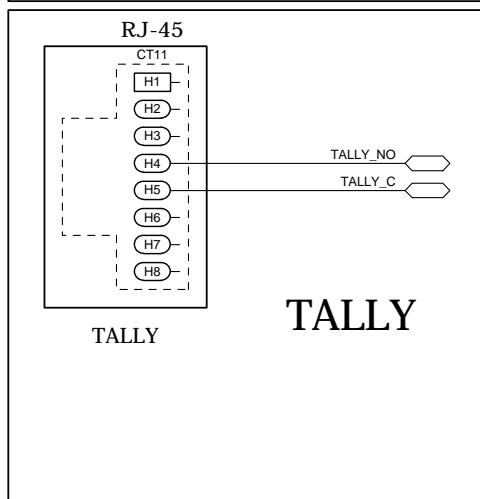


AUDIOARTS 08
System Flow Diagram

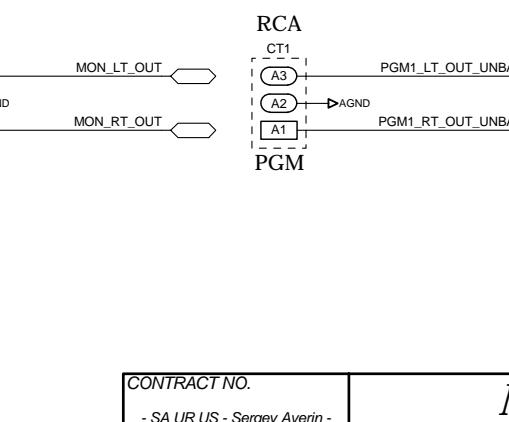
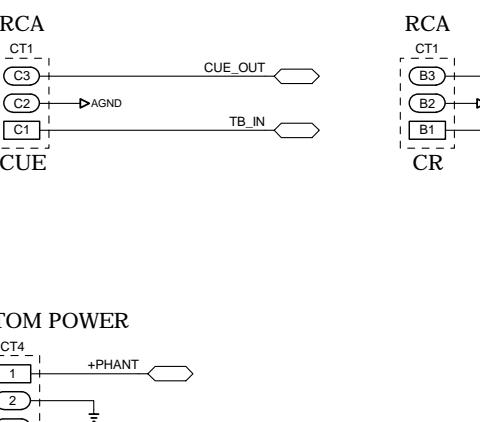
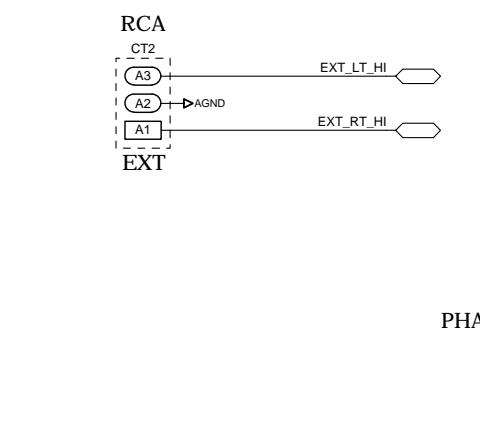
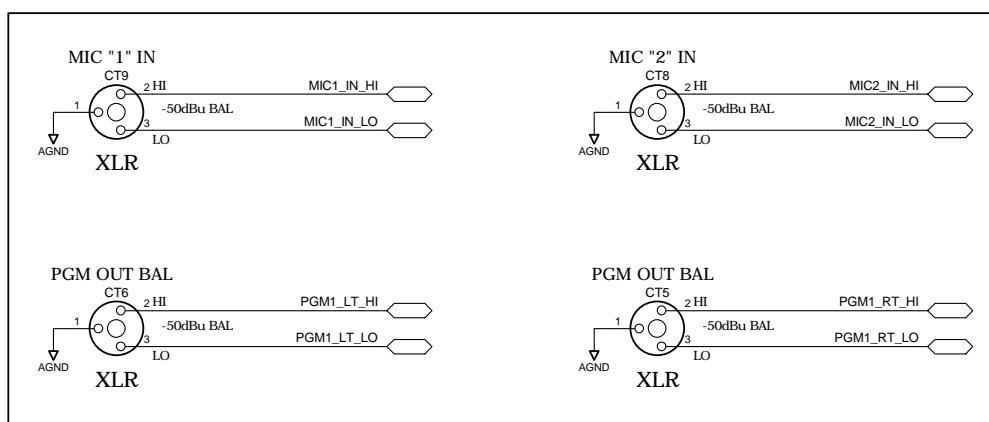
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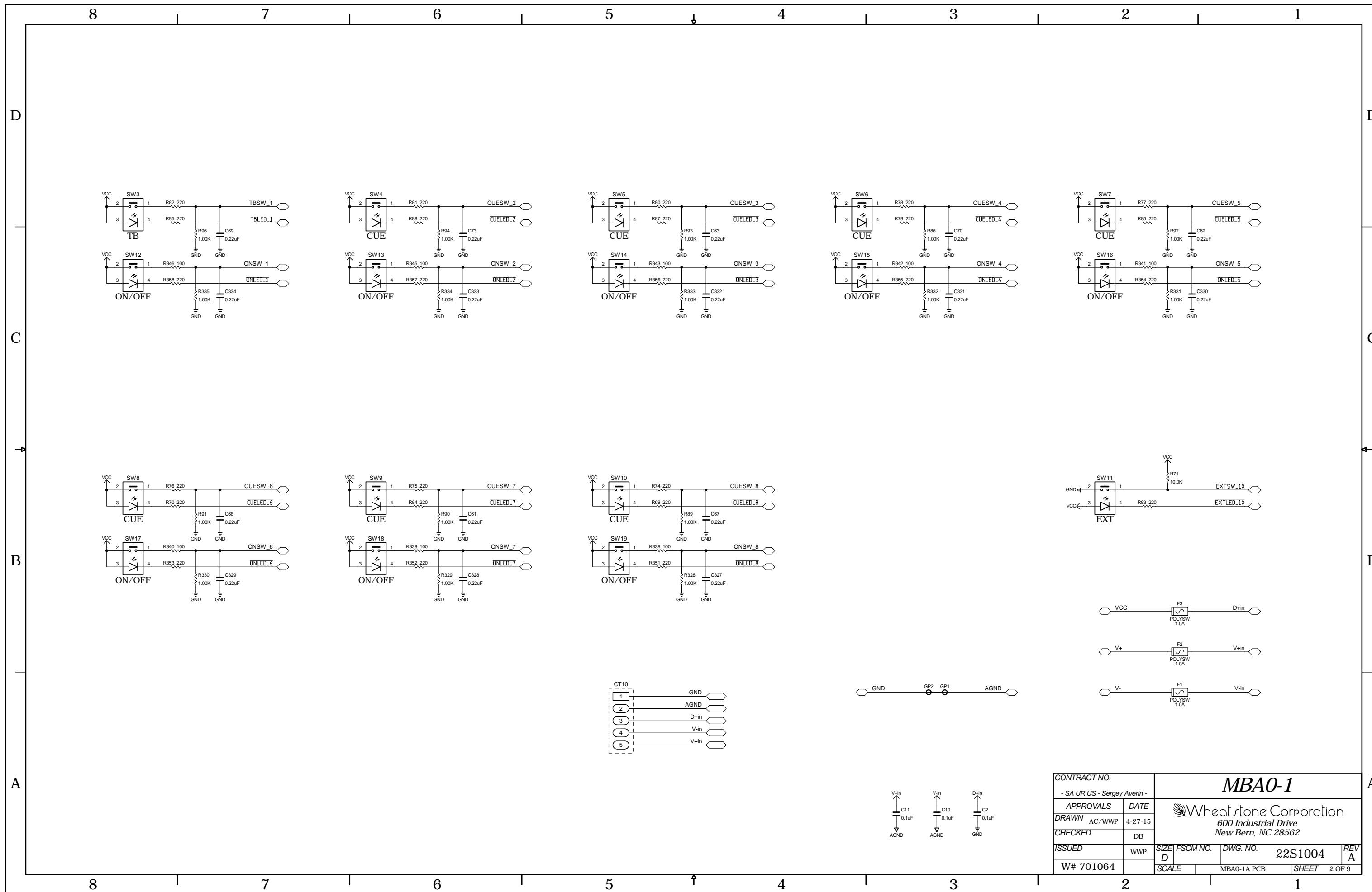
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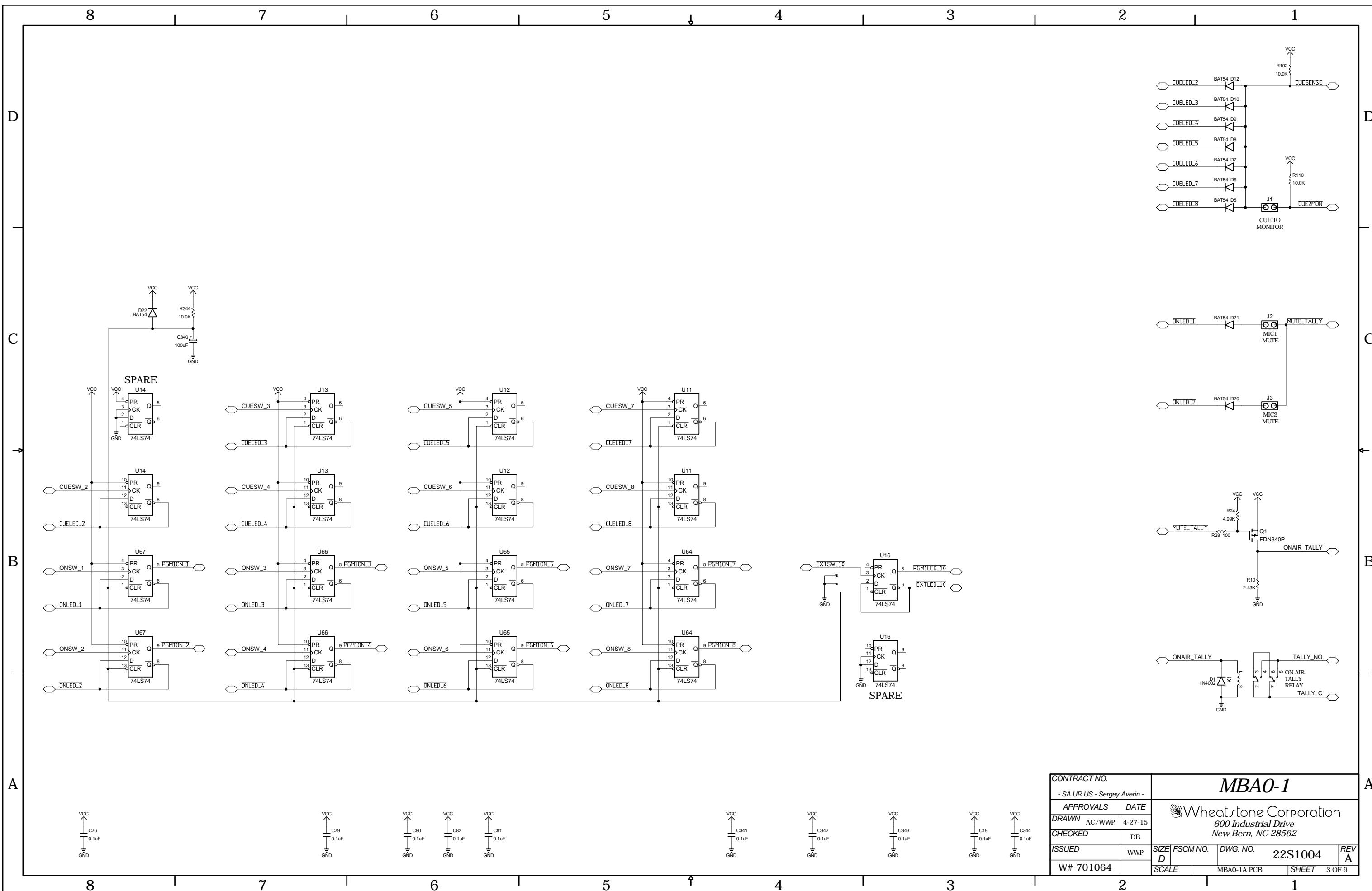
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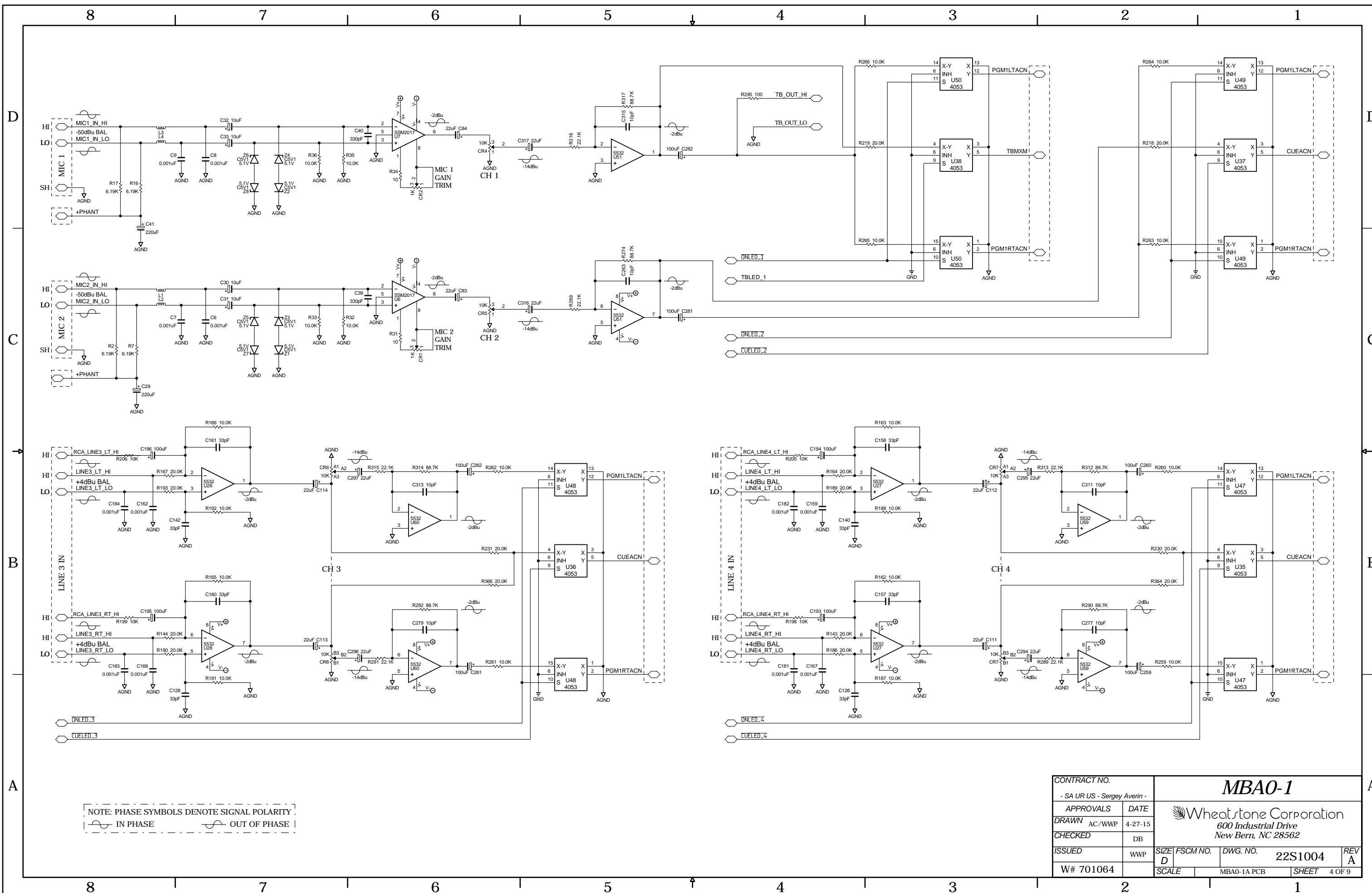


CONTRACT NO.		MBAO-1	
- SA UR US -	Sergey Averin -		
APPROVALS	DATE		
DRAWN AC/WWP	4-27-15		
CHECKED	DB		
ISSUED	WWP		
W# 701064			
SCALE	MBAO-1A PCB	REV	1 OF 9



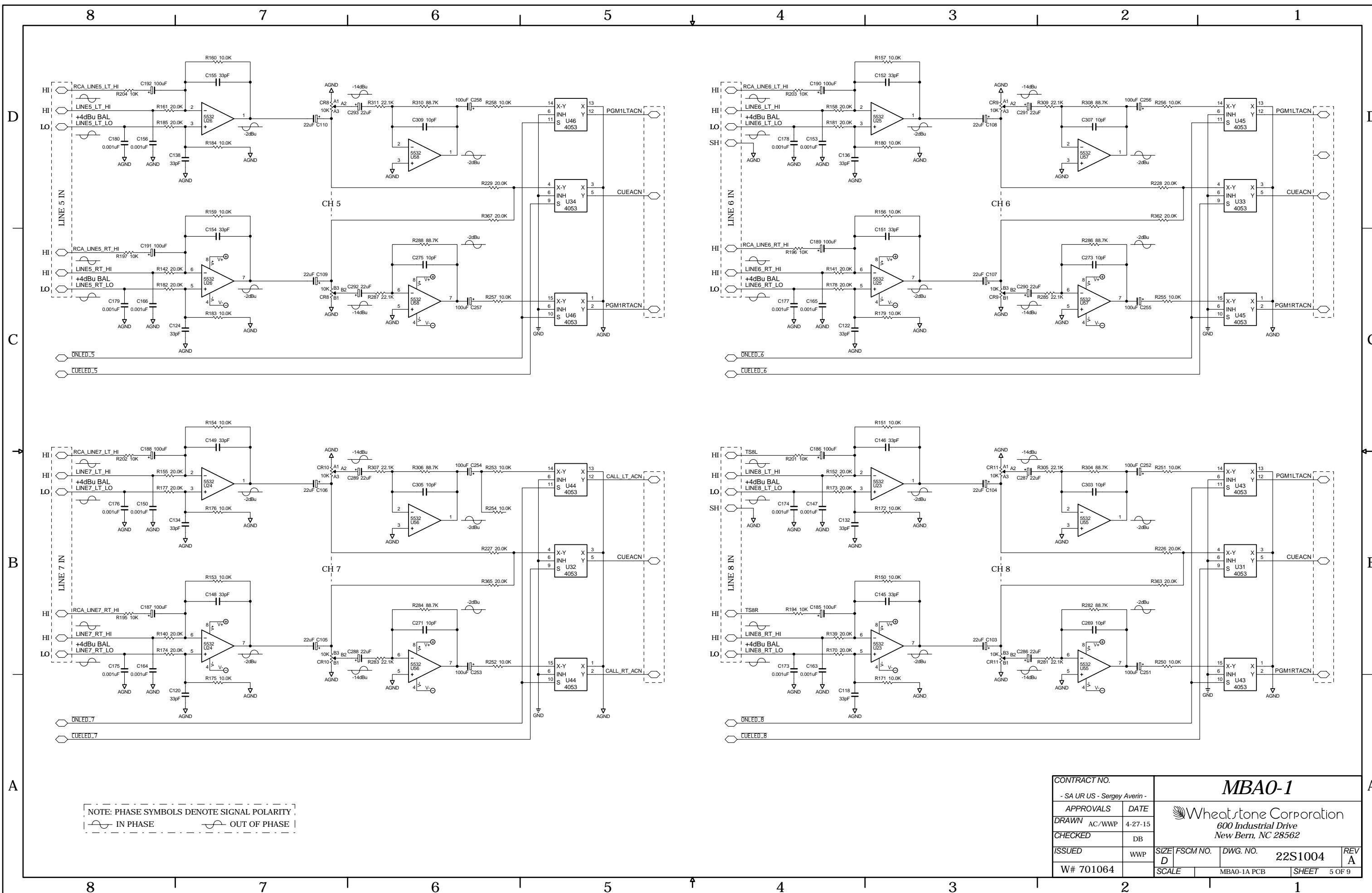
Mother Board Schematic - Sheet 2 of 9



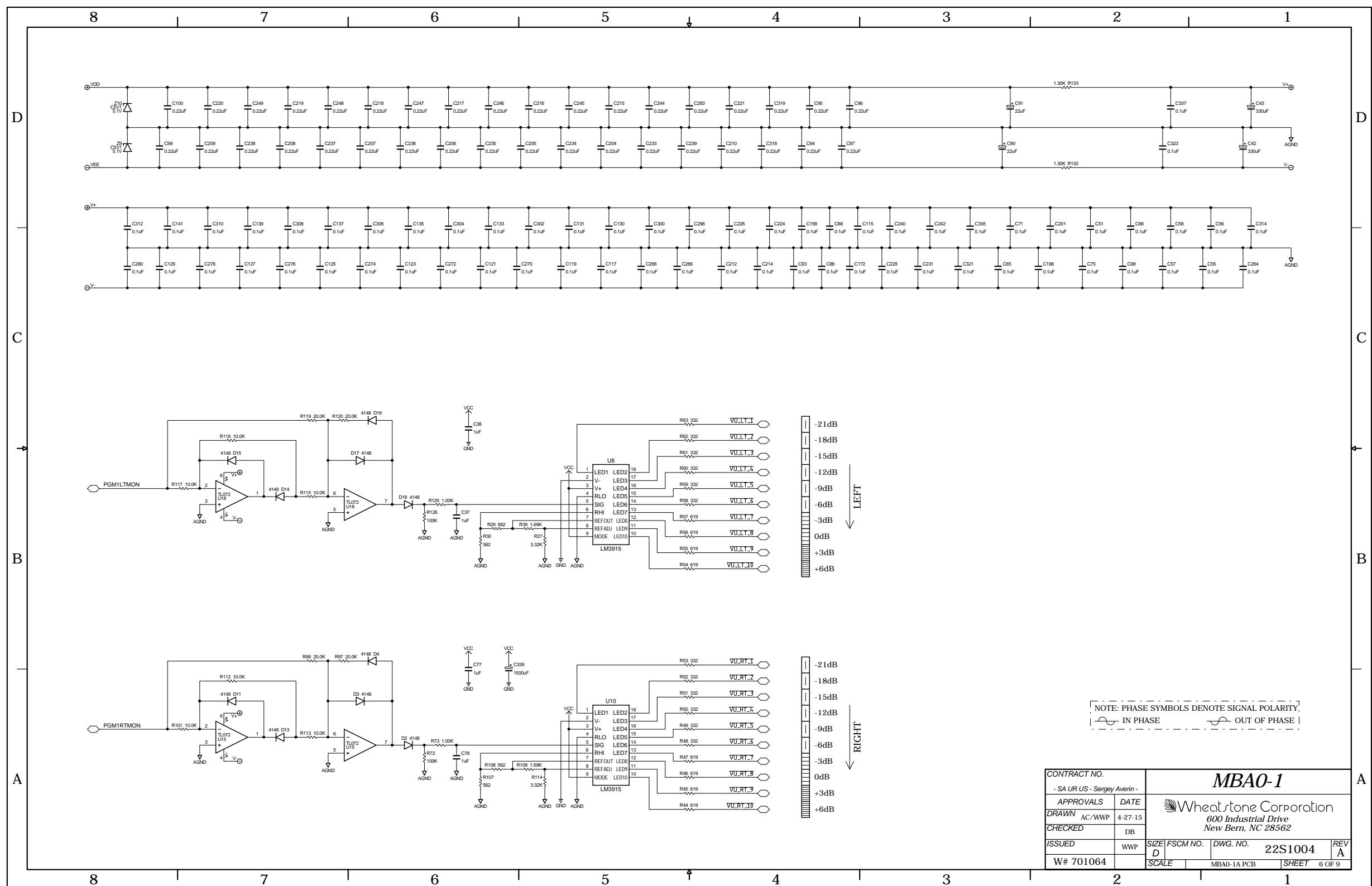
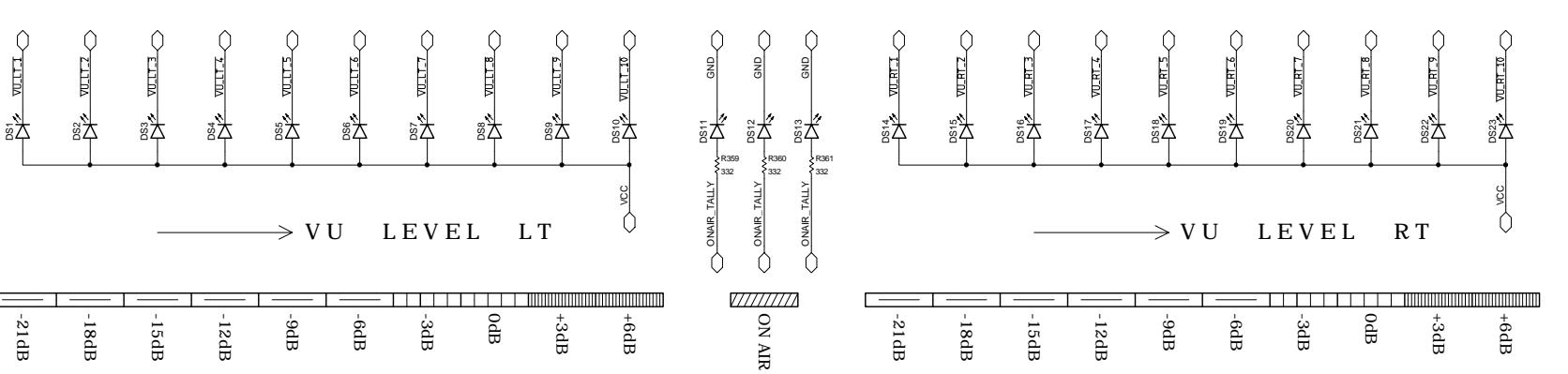


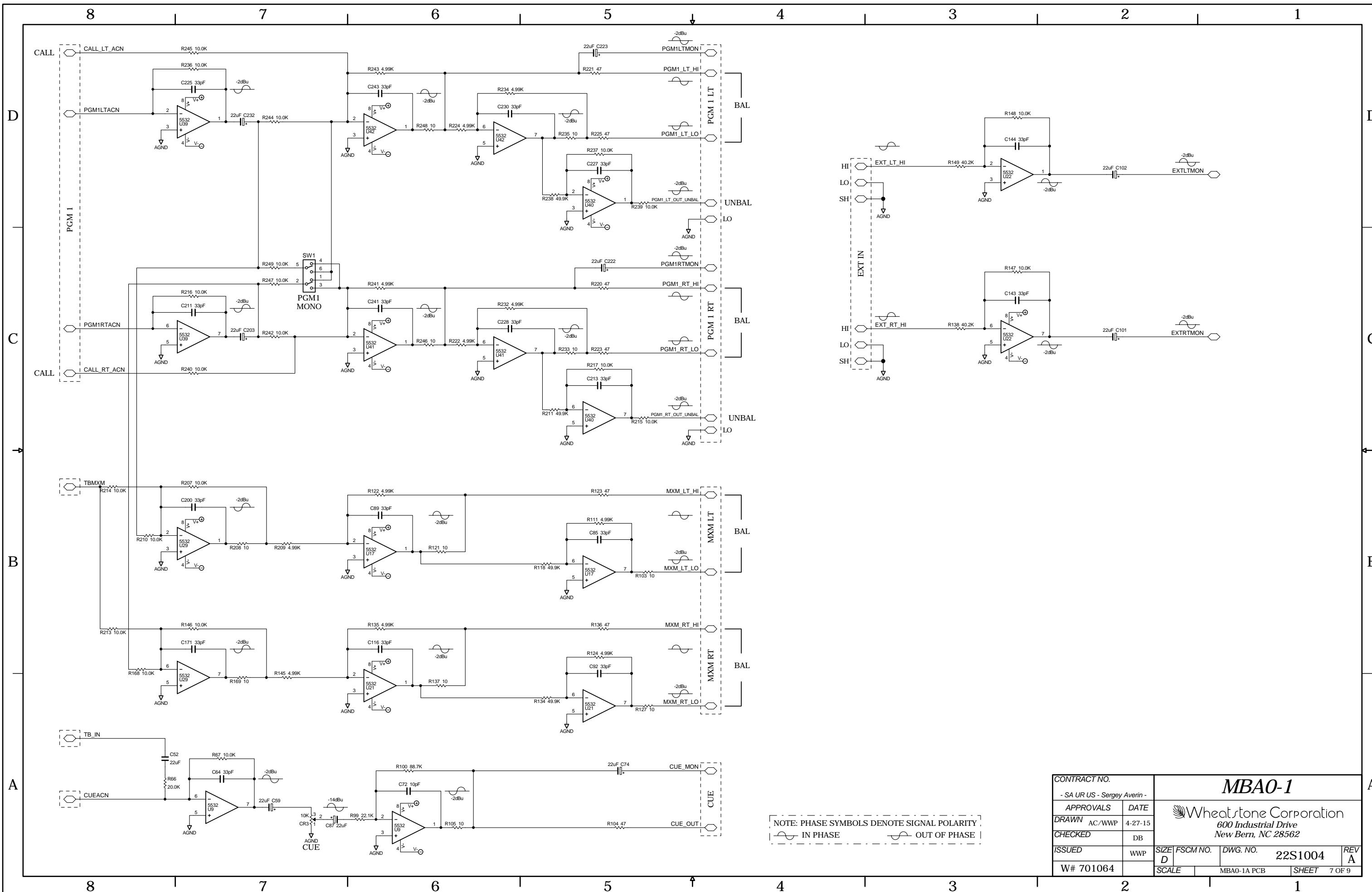
Mother Board Schematic - Sheet 4 of 9

CONTRACT NO.		MBAO-1	
- SA UR US - Sergey Averin -			
APPROVALS	DATE		
DRAWN	AC/WWP	4-27-15	
CHECKED		DB	
ISSUED	WWP		
W# 701064		SCALE	MBAO-1A PCB
FSCM NO.		DWG. NO.	22S1004
D		REV	A
SIZE		SCHE	4 OF 9

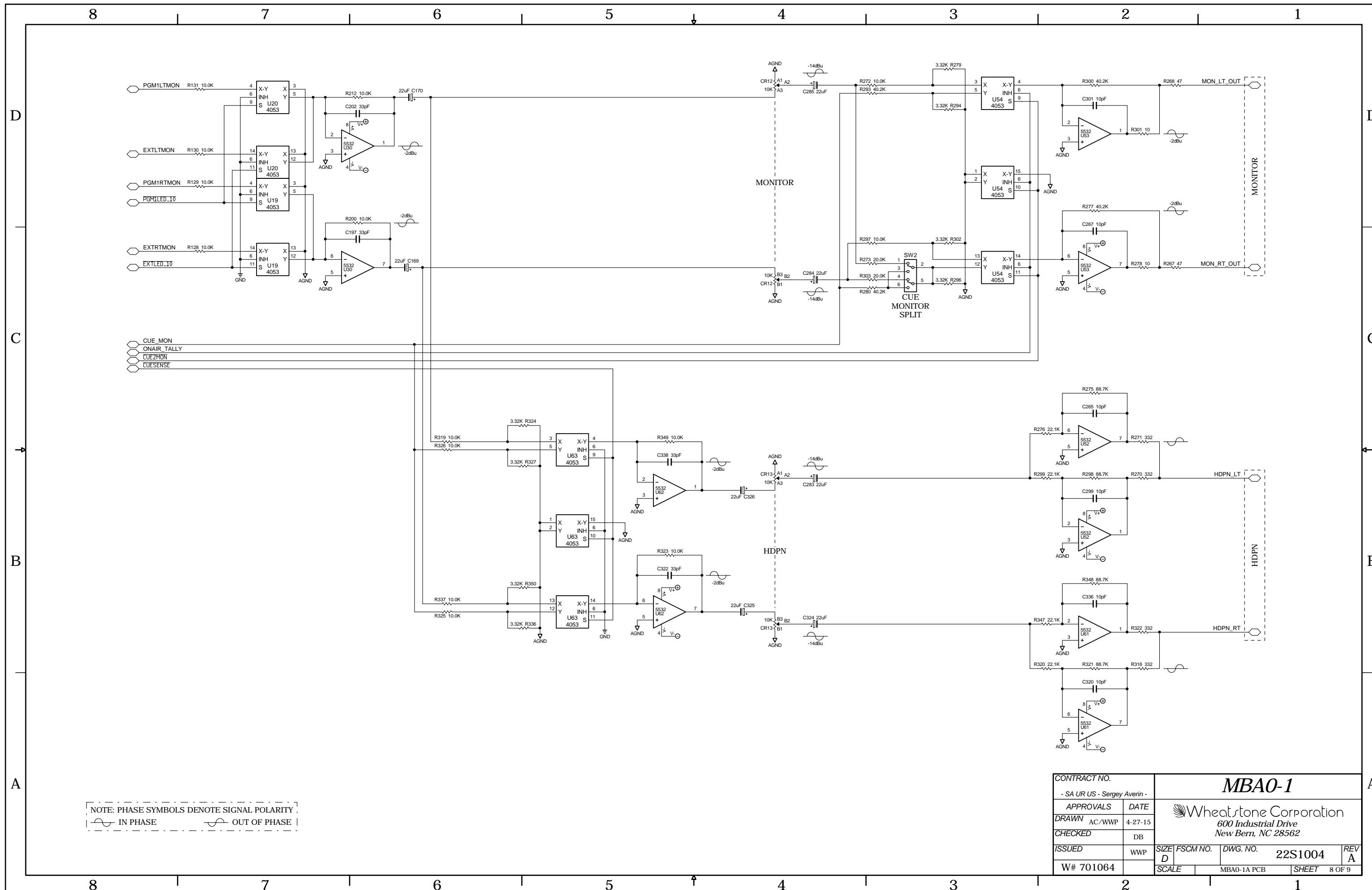


Mother Board Schematic - Sheet 5 of 9

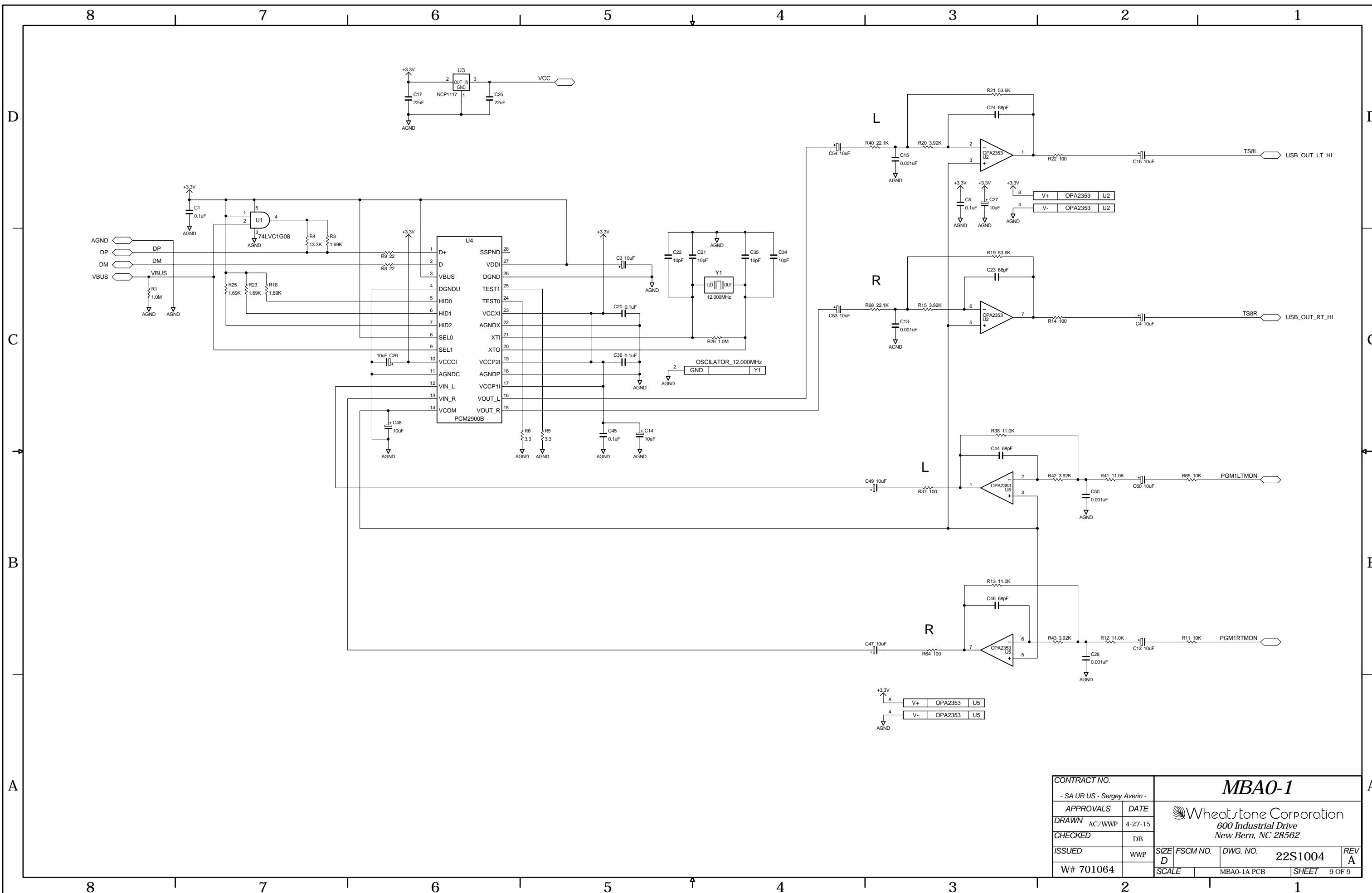




Mother Board Schematic - Sheet 7 of 9

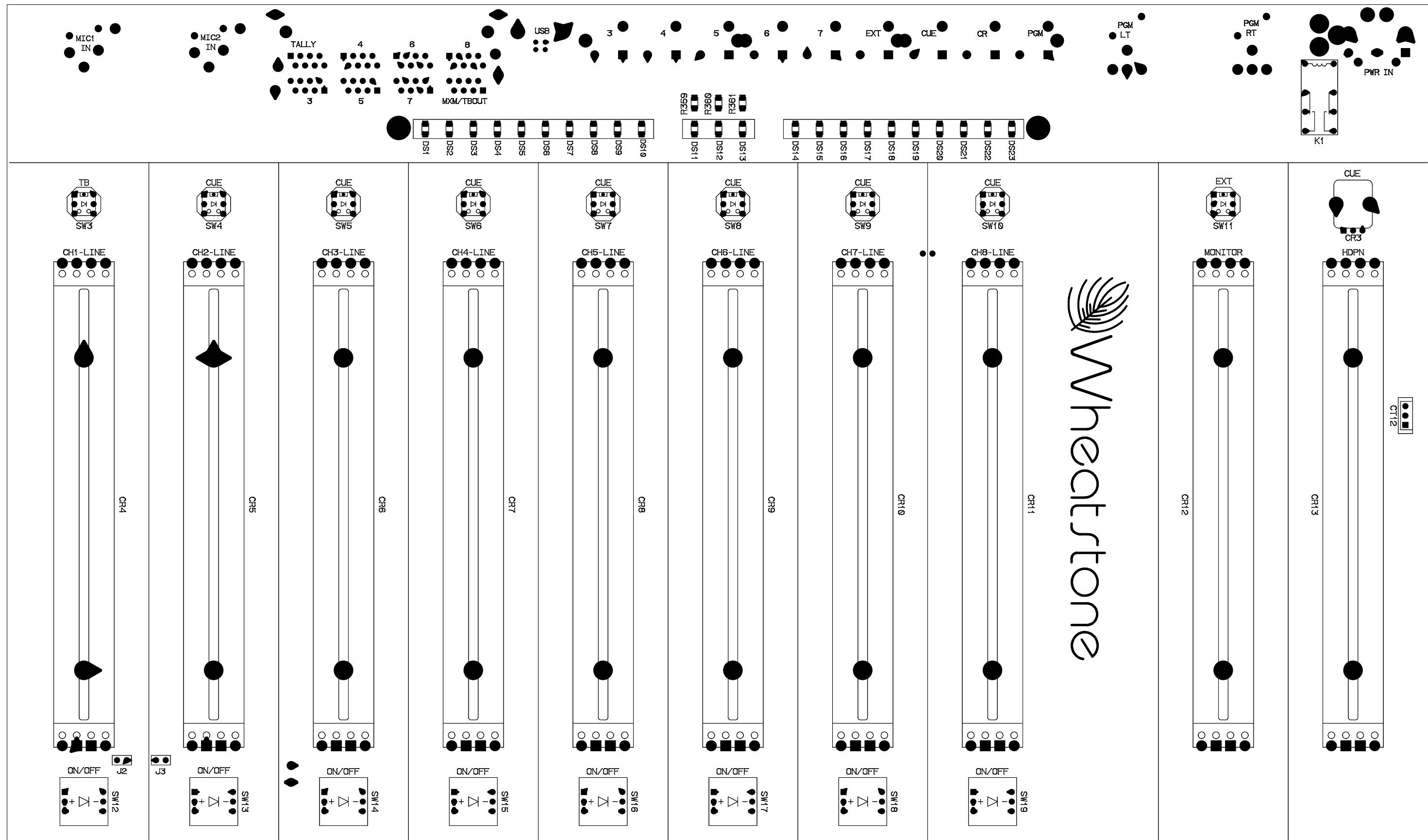


Mother Board Schematic - Sheet 8 of 9

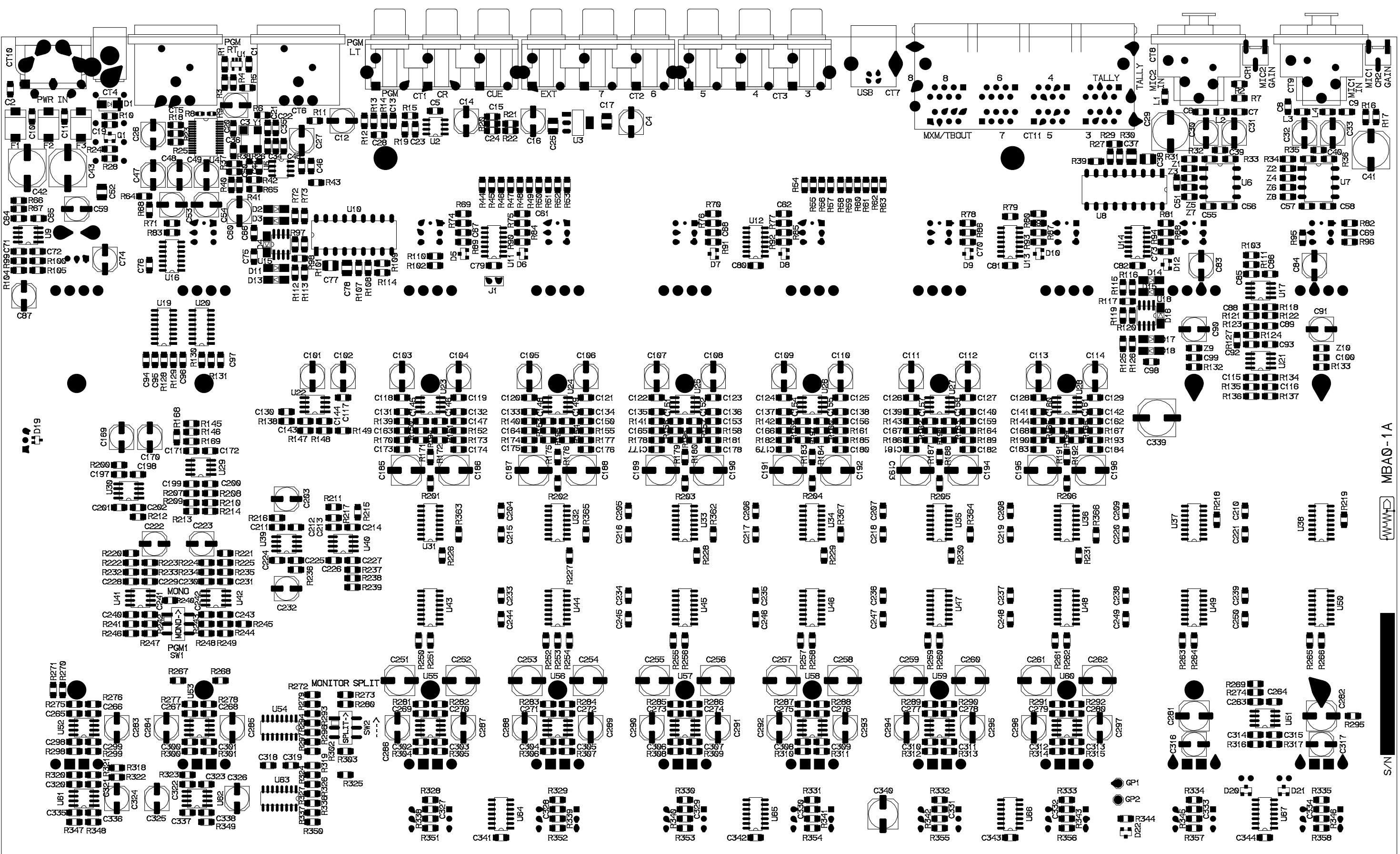


Mother Board Schematic - Sheet 9 of 9

CONTRACT NO.	MBAO-1	
- SA UR US - Sergey Averin -		
APPROVALS	DATE	
DRAWN	AC/WWP	4-27-15
CHECKED	DB	
ISSUED	WWP	
W# 701064		
SCALE	MBAO-1A PCB	SHEET 9 OF 9



Mother Board Load Sheet



Mother Board Load Sheet

Appendix

Contents

Replacement Parts List.....	A-2
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For the most part there are no user-replaceable parts in the AUDIOARTS 08 console. Exceptions are those controls and components that in the course of normal use may need maintenance (i.e., faders, pots, ON switches, etc.). A complete list of available components is shown on the next page. Contact Audioarts Engineering technical support for further information.

Audioarts Engineering (600 Industrial Drive, New Bern, North Carolina, USA 28562) may be reached by phone at 252-638-7000, fax 252-637-1285, email “techsupport@wheatstone.com”.

REPLACEMENT PARTS - AUDIOARTS 08 CONSOLE

COMPONENT	DESCRIPTION	WS P/N
MB-08 LOADED CARD	MOTHERBOARD LOADED CARD ASSEMBLY	011442
FADER	LOW PROFILE TYPE N AUDIO FADER	540061
FADER KNOB	BLACK FADER KNOB, 11mm FOR 3000 SERIES FADER	520001
FADER KNOB	GREY FADER KNOB, 11mm FOR 3000 SERIES FADER	520004
FADER KNOB	RED FADER KNOB, 11mm FOR 3000 SERIES FADER	520006
POT	"CUE" 10K SINGLE LINEAR VERTICAL POT	500126
POT KNOB	15MM BLACK PUSH-ON KNOB FOR 6MM SHAFT FOR "CUE" POT	520125
POT CAP	11MM BLACK CAP W/LINE FOR 15MM "CUE" KNOB	530037
NKK SWITCH	JB15 SWITCH W/BRIGHTER RED LED AND SILICON GASKET	510290
SWITCH	SINGLE POLE MOMENTARY SWITCH W/YELLOW LED	510296
SWITCH CAP	WHITE SWITCH CAP	530004
SWITCH CAP	CUSTOM MILKY WHITE STYRENE WITH UV INHIBITOR LIGHT PIPE BUTTON	530274
CONNECTOR	XLR FEMALE	260082
CONNECTOR	XLR MALE	260091
CONNECTOR	4x2 STACKED R/A SHIELDED RJ-45	260086
CONNECTOR	USB-B R/A SHIELDED RJ-45	260090
CONNECTOR	2x3 RCA JACK ASSEMBLY	260109
CONNECTOR	POWER JACK DC R/A	260110
POWER SUPPLY	25W TRIPLE OUTPUT DESKTOP POWER SUPPLY	980038
POWER CONNECTOR	R/A DIN RECEPTACLE	260071
POWER CORD	7 1/2" BLACK POWER CORD	150017
MANUAL	TECHNICAL MANUAL FOR AUDIOARTS08 CONSOLE	011497