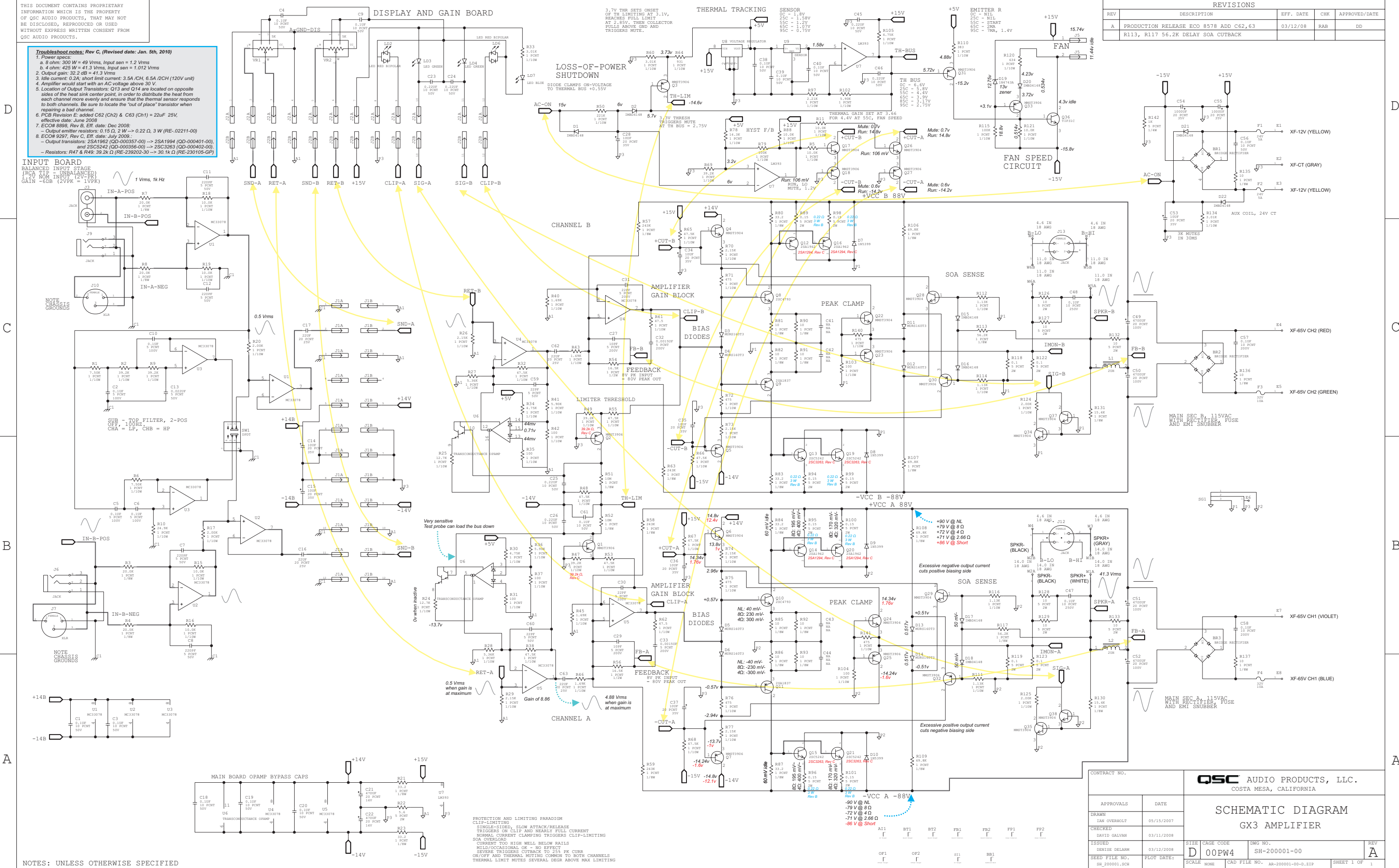


THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION WHICH IS THE PROPERTY OF QSC AUDIO PRODUCTS, THAT MAY NOT BE DISCLOSED, REPRODUCED OR USED WITHOUT EXPRESS WRITTEN CONSENT FROM QSC AUDIO PRODUCTS.

Troubleshoot notes: Rev C, (Revised date: Jan. 5th, 2010)

- Power specs:
 - a. 8 ohm: 300 W = 49 Vrms, Input sen = 1.2 Vrms
 - b. 4 ohm: 425 W = 41.3 Vrms, Input sen = 1.012 Vrms
- Output gain: 32.2 dB = 41.3 Vrms
- Idle current: 0.2A; short limit current: 3.5A/CH, 6.5A/2CH (120V unit)
- Amplifier would start with an AC voltage above 30 V.
- Location of Output Transistors: Q13 and Q14 are located on opposite sides of the heat sink center point. In order to distribute the heat from each channel more evenly and ensure that the thermal sensor responds to both channels. Be sure to locate the "out of place" transistor when repairing a bad channel.
- PCB Revision E: added C62 (Ch2) & C63 (Ch1) = 22uF 25V, effective date: June 2008
- ECOS# 8998, Rev B, Eff. date: Dec 2008:
 - Output emitter resistors: 0.15 Ω, 2 W → 0.22 Ω, 3 W (RE-02211-00)
 - ECOS# 9297, Rev C, Eff. date: July 2009:
 - Output transistors: 2SA1962 (QD-000357-00) → 2SA1994 (QD-000401-00), and 2SC5242 (QD-000356-00) → 2SC3263 (QD-000402-00), and 2SC5242 (QD-000356-00) → 2SC3263 (QD-000402-00).
 - Resistors: R47 & R49: 39.2k Ω (RE-239202-30 → 30.1k Ω (RE-230105-G7))

REVISIONS				
REV	DESCRIPTION	EFF. DATE	CHK	APPROVED/DATE
A	PRODUCTION RELEASE ECO 8578 ADD C62,63	03/12/08	RAB	DD
	R113, R117 56.2K DELAY SOA CUTBACK			



NOTES: UNLESS OTHERWISE SPECIFIED

PROTECTION AND LIMITING PARADIGM
 CLIP-LIMITING
 SINGLE-ENDED, SLOW ATTACK/RELEASE
 TRIGGERS ON CLIP AND NEARLY FULL CURRENT
 NORMAL CURRENT CLAMPING TRIGGERS CLIP-LIMITING
 SOA OVERLOAD
 CURRENT TOO HIGH WELL BELOW RAILS
 MILD/OCCASIONAL OK - NO EFFECT
 SEVERE TRIGGERS CUTBACK TO 25% FX CURR
 ON/OFF AND THERMAL MUTING COMMON TO BOTH CHANNELS
 THERMAL LIMIT MUTES SEVERAL DEGR ABOVE MAX LIMITING

CONTRACT NO.		QSC AUDIO PRODUCTS, LLC. COSTA MESA, CALIFORNIA	
APPROVALS	DATE	SCHEMATIC DIAGRAM GX3 AMPLIFIER	
DRAWN IAN OVERBOLT	05/15/2007	SIZE D	CAGE CODE 00PW4
CHECKED DAVID GALVAN	03/11/2008	DWG NO. SH-200001-00	REV A
ISSUED DENISE DELARM	03/12/2008	SCALE NONE	CAD FILE NO. AA-200001-00-C.RIP
SEED FILE NO. SH_200001.SCH	PLOT DATE:	SHEET 1 OF 1	