CC-218 EQ BOARD Design

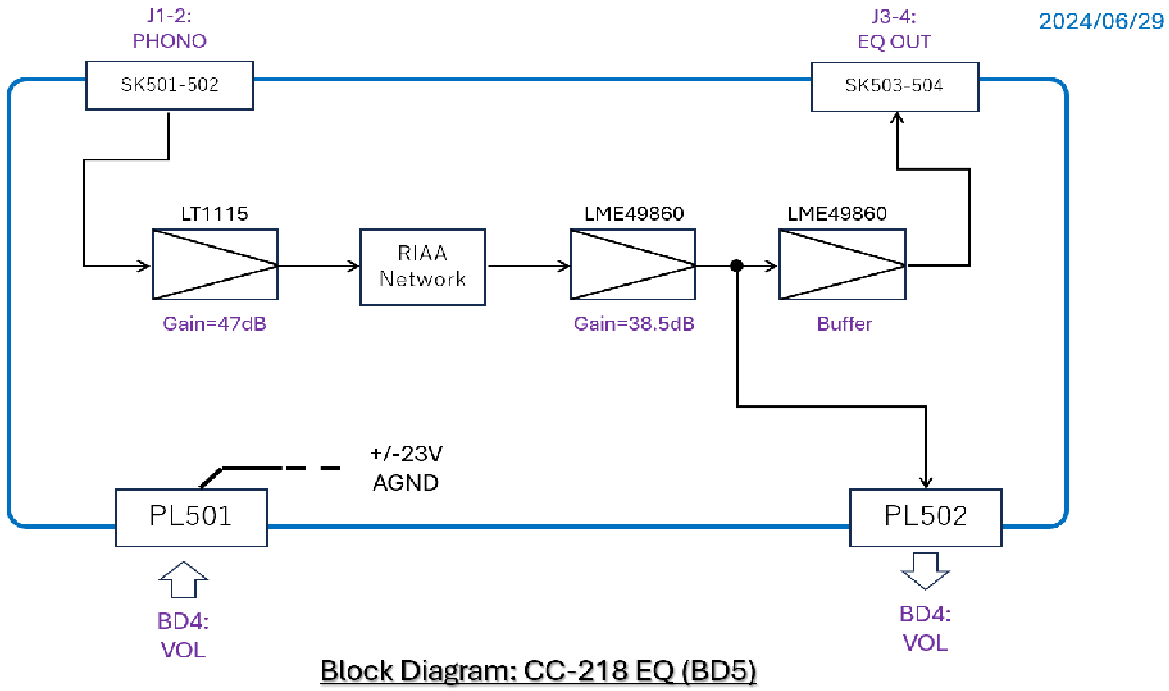
2023/10/01
2025/03/03

Circuit Design

Rev.A

Contents

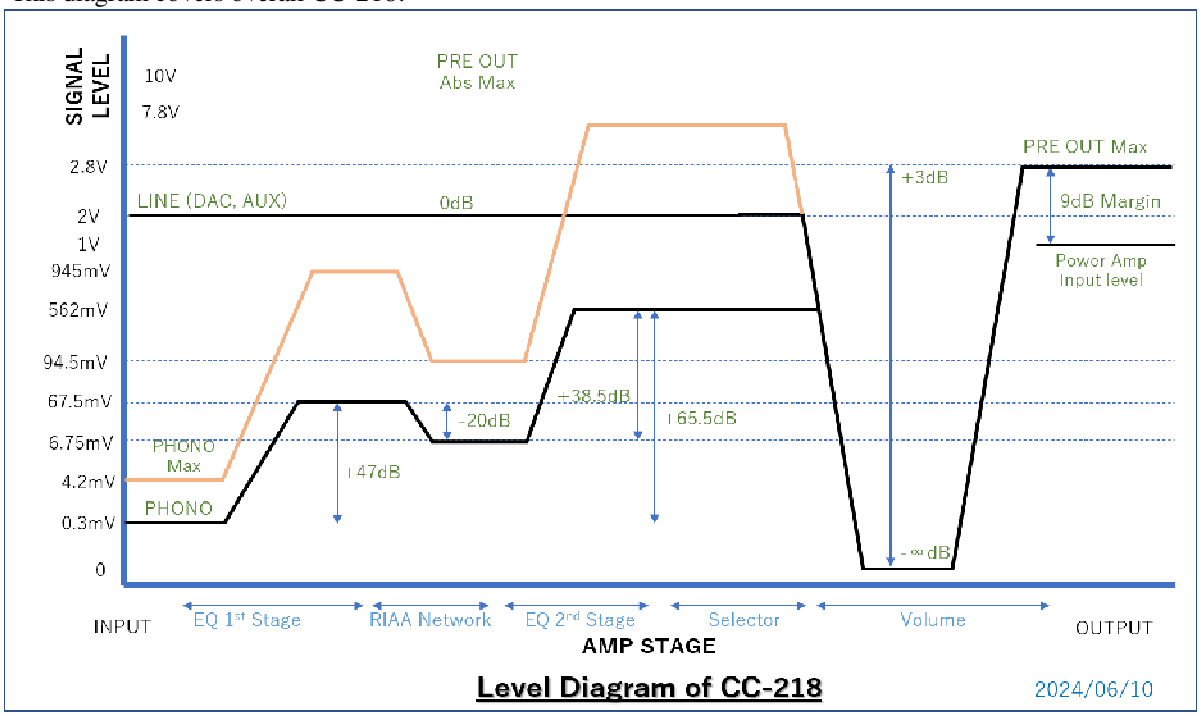
Block Diagram



Block Diagram: CC-218 EQ (BD5)

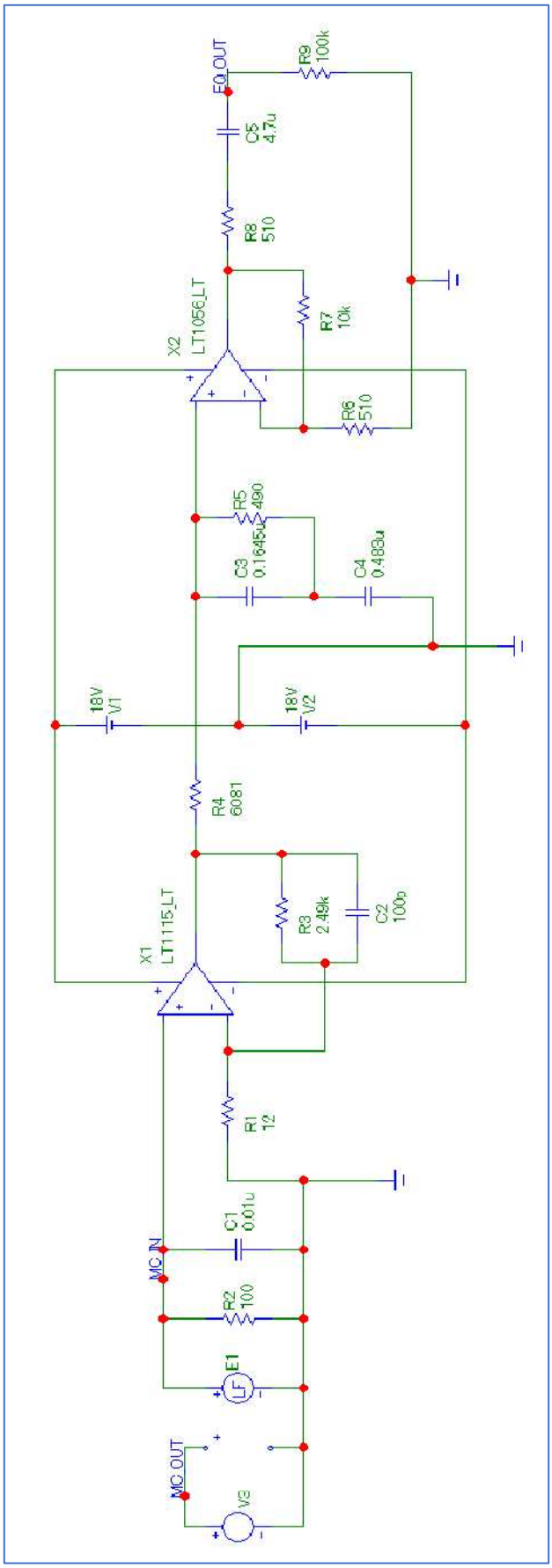
Level Diagram

This diagram covers overall CC-218.



Simulation

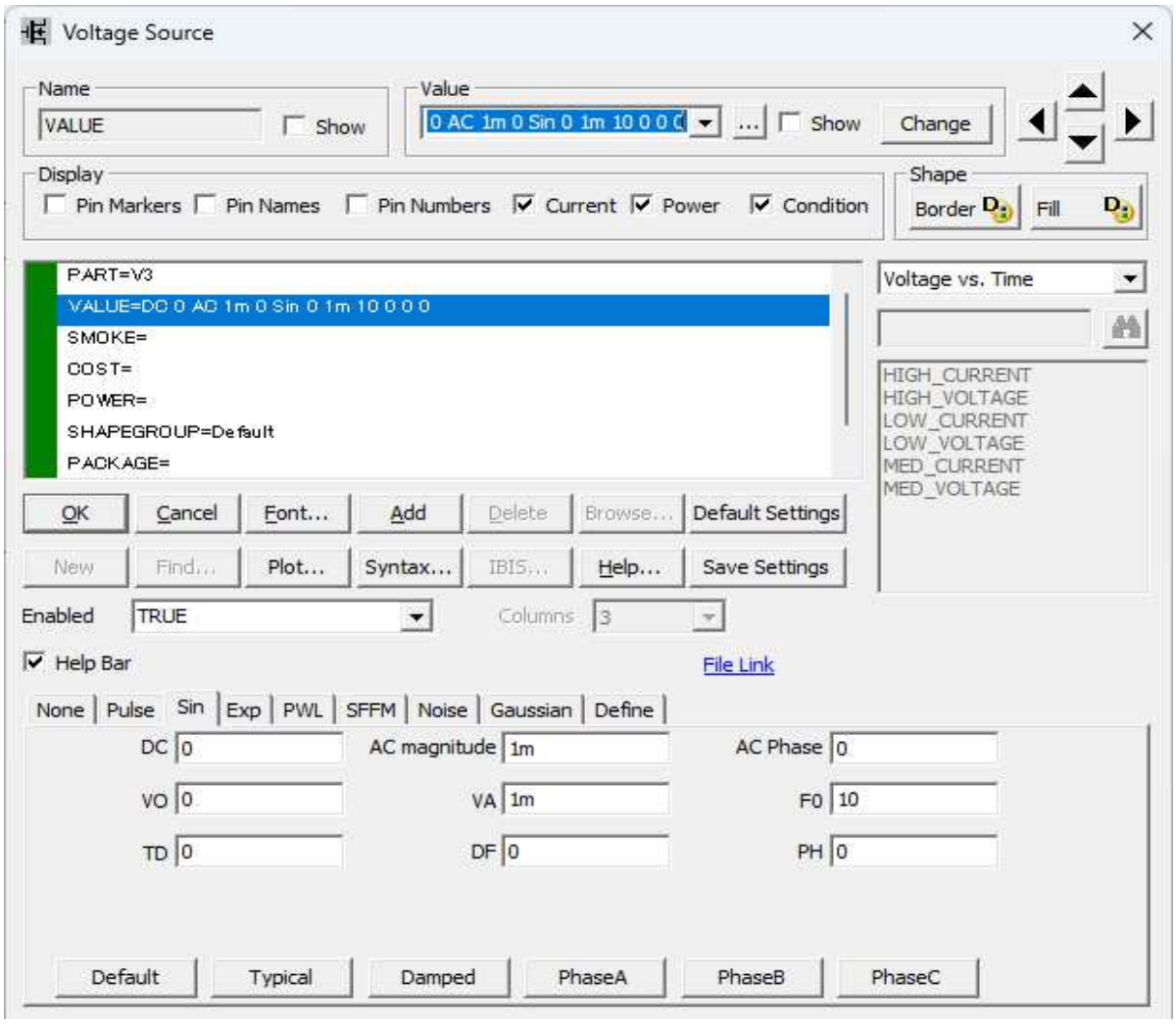
*** Schematics**



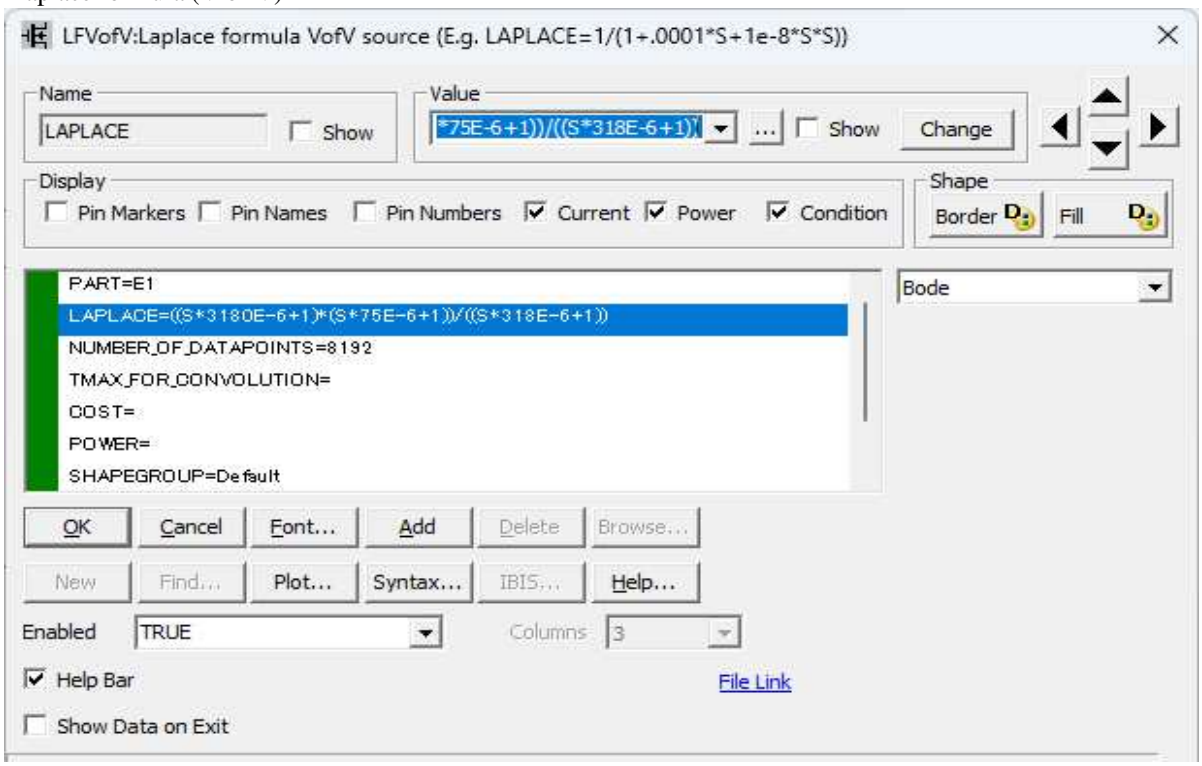
This circuit is quoted from the data sheet of LT1115

*** Settings**

Oscillator



Laplace formula (V of V)

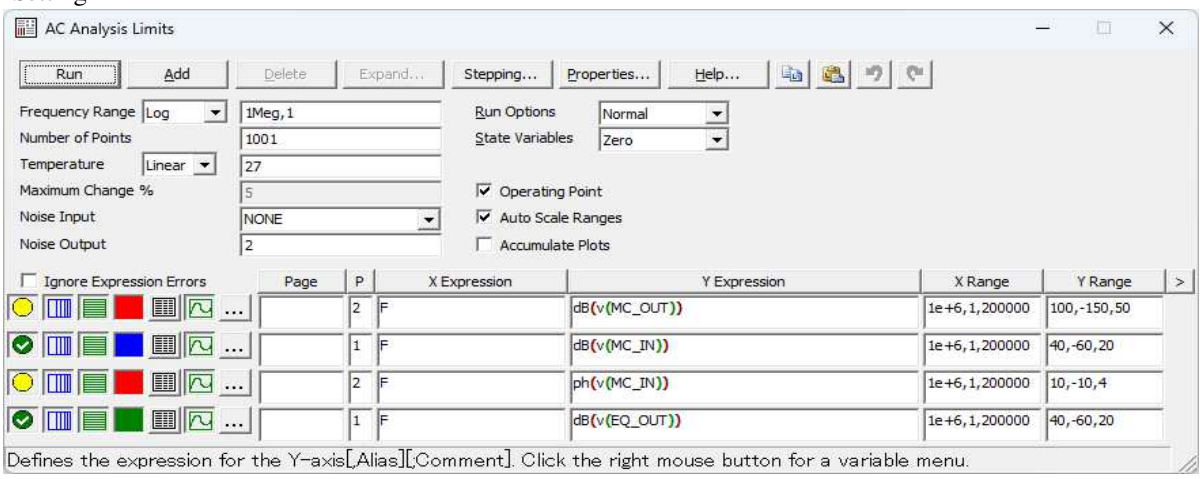


LAPLACE=((S*3180E-6+1)*(S*75E-6+1))/((S*318E-6+1))

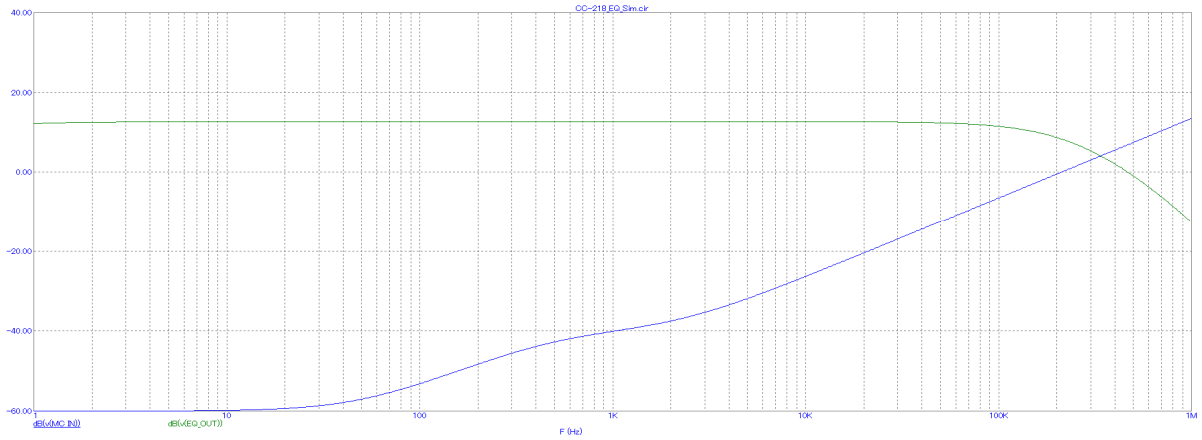
==> RIAA emphasis

*** AC Analysis**

Setting



Result



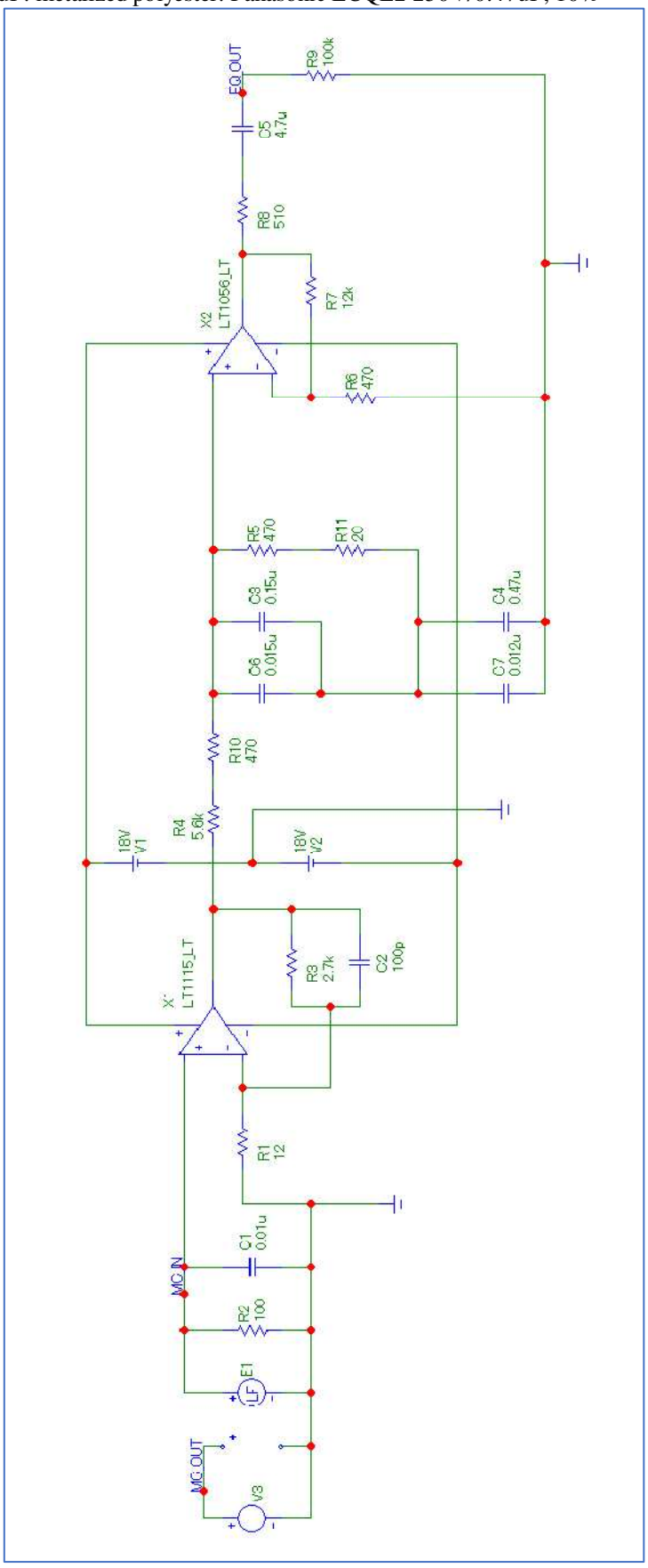
Perfect!

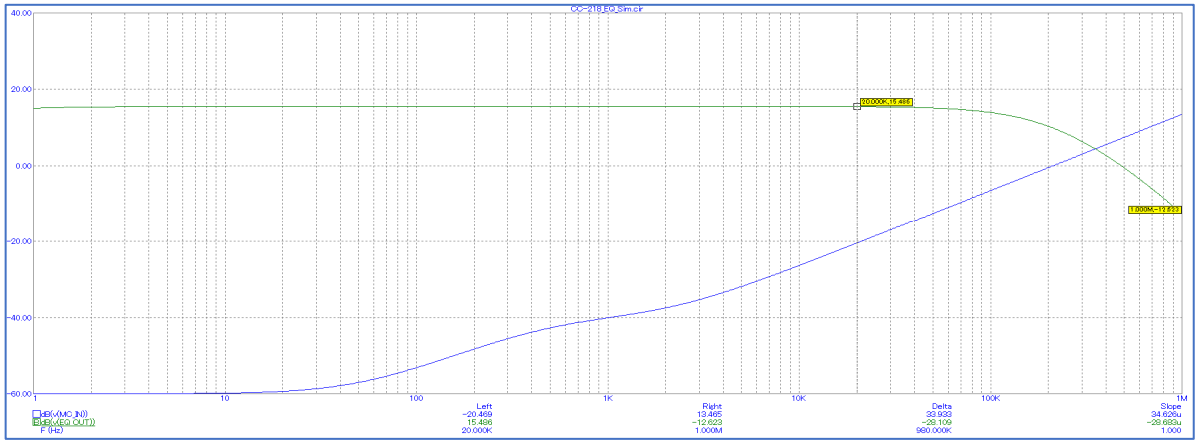
Deviation: -0.003dB~+0.035dB

*** Revised schematics**

C: polypropylene, tolerance=5%, except 0.47uF: Toshin UPZ

0.47uF: metalized polyester: Panasonic ECQE2 250V/0.47uF, 10%



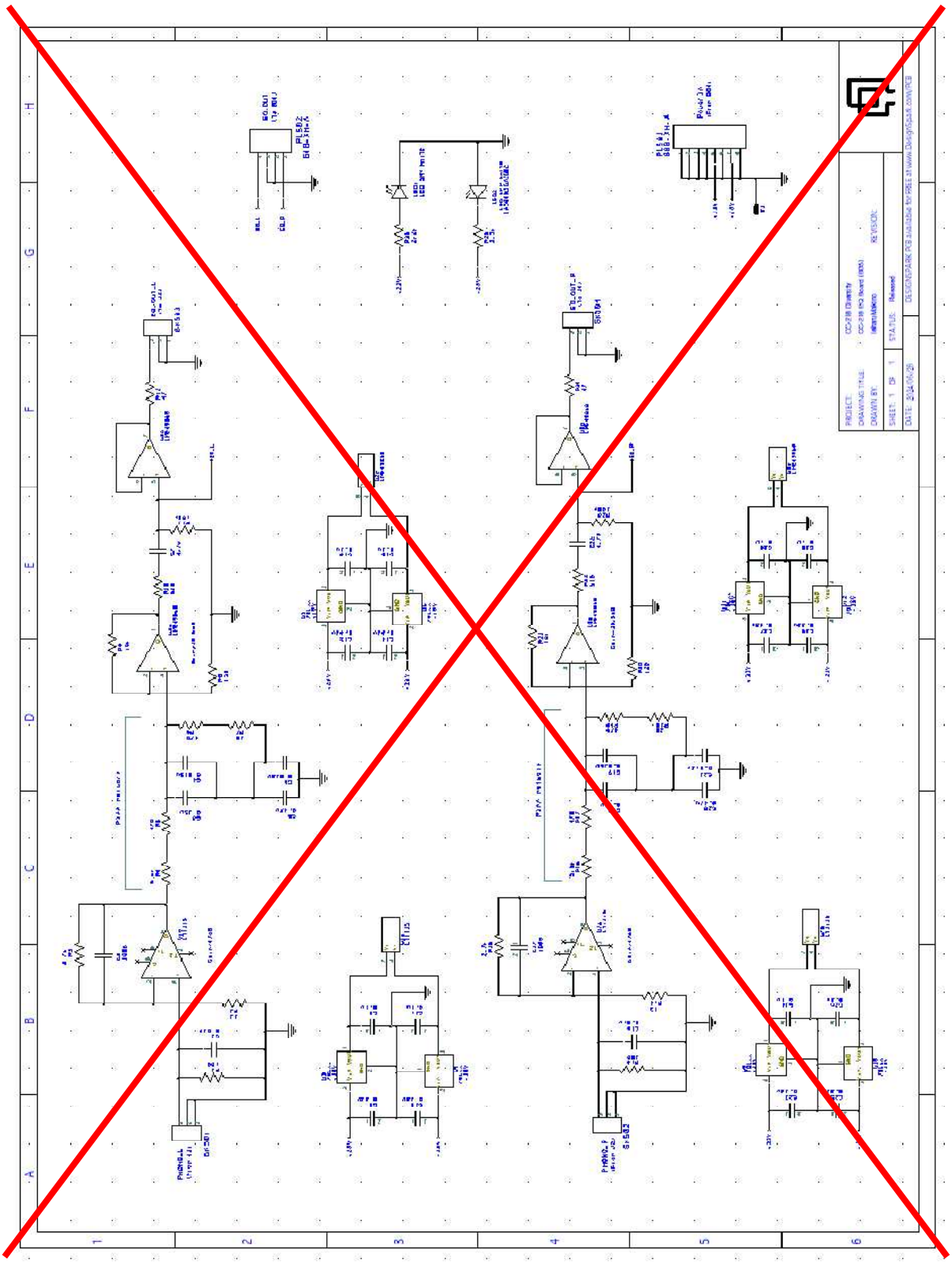


Still good!

Deviation: -0.045dB~+0.023dB

Schematic

For details, see CC-218_EQ_Schematic.pdf.



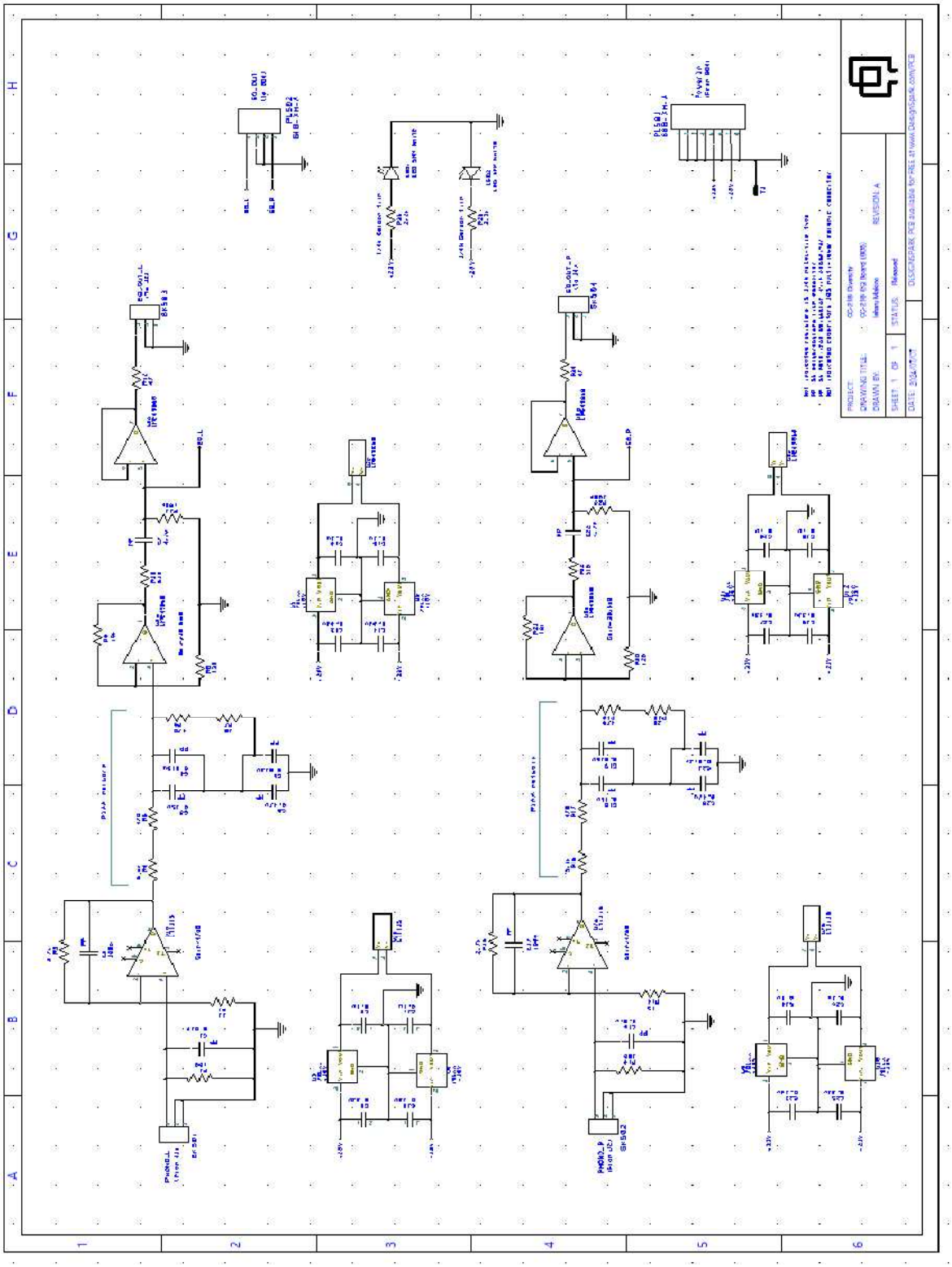
*** Rev. A**

The package of ECQE2475JB (4.7uF, C7,22) was wrongly defined. The lead pitch was 10mm.

The correct lead pitch is 17.5mm. ==> Corrected.

The shematic itself is unchanged.

For details, see CC-218_EQ_A_Schematic.pdf.



Power Dissipation

2024/12/20

*** Current dissipation estimate**

Device	Qty	Current dissipation		Total current dissipation	
		V+	V-	+23V	-23V
LT1115	2	11.5mA	11.5mA	23.0mA	23.0mA
LME49860	2	10.0mA	10.0mA	20.0mA	20.0mA
LED	1	11.0mA	11.0mA	11.0mA	11.0mA
Total				54.0mA	54.0mA

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