

2000-MIA1-0.01

FINISHED

PCB NOTE:
All nets that start with KS are "Keep Short" nets. They are grouped at the top of the netlist.
PCB5

PCB NOTE:
All connector silkscreen RefDes must be 3mm high on both sides of the board where possible.
PCB6

Custom attributes:
fill in different build attributes

FID1

FID2

Fiducial,40mil,Top/Bot side

Fiducial,40mil,Top/Bot side

MH1

MH2

MH3

MH4

MH-NP-0.055

Top Side Documentation

Silkscreen: Mia

Silkscreen: MICRO INTELLIGENT ALTIMETER

Printed Circuit Board: 1700-MIA1-0.03

In Copper:

Printed circuit board, FR4, 1.0mm thick, 2 Layer

Bottom Side Documentation

Silkscreen: BOARD: PRO MINI

Silkscreen: PROC: ATMEGA328P 3.3V

PCB Layout Notes:

1) Test points accessible from bottom.

2) OLED & switches on same side of board.

3) Add vias on SMT connector mechanical pads.

PCB Fabrication Notes:

1) Each board in the panel must have a unique number, in copper, to track which part of the panel each board came from.

2) The solder mask must be green.

3) Solder side silkscreen must be must.

4) Component side silkscreen must be white.

Designer: Robert & Rich Rau

Parts Cost: \$40.1189

At a quantity of: 10

Cost of Assembly: &CostTotalAsy

Operating temperature range: 0° C to 70°C &NoteTempWavr

Net List File Name: Mia1_0.04.txt

Package count component side: 53

Package count solder side: 23

Error Count: 0

Warning Count: 74

Component side area used is 456 mm^2, or 53% of 851.5 mm^2

Solder side area used is 490 mm^2, or 57% of 851.5 mm^2

PCB Assembly mass: &GmMassTot grams

Assembly Step 1

Top side SMT

Assembly Step 2

Bottom side SMT

Assembly Step 3

Attach OLED to J2

Last Used Devices:

C20

D4

FID2

HW1

J2

MH4

P5

PCB7

PZ1

Q3

R24

SW4

TP15

U7

Unused Units:

Rev. 0.00

Prototype release

Rev. 0.01

Added SW4 and CHG signal to MCU inputs.

Added series resistors on TX & RX lines between LTC4063 & FT230 power domains.

Added accelerometer. Changed battery charge resistor values. Added capacitance on Plus3.0V.

Board narrowed by 0.2mm. Added USB ESD capacitors.

Rev. 0.02

Layout improvment. PCB part number added as "MIA1-0.02"

Rev. 0.03

Layout improvment around accelerometer, improved grounding. PCB PN reduced to version only "0.03"

Rev. 0.04

Changed BMP390 to a BMP581. Changed U4 to a 2Mb ST M24M02E. No layout change.

Design Revision: 0.01

Drawing Revision: H

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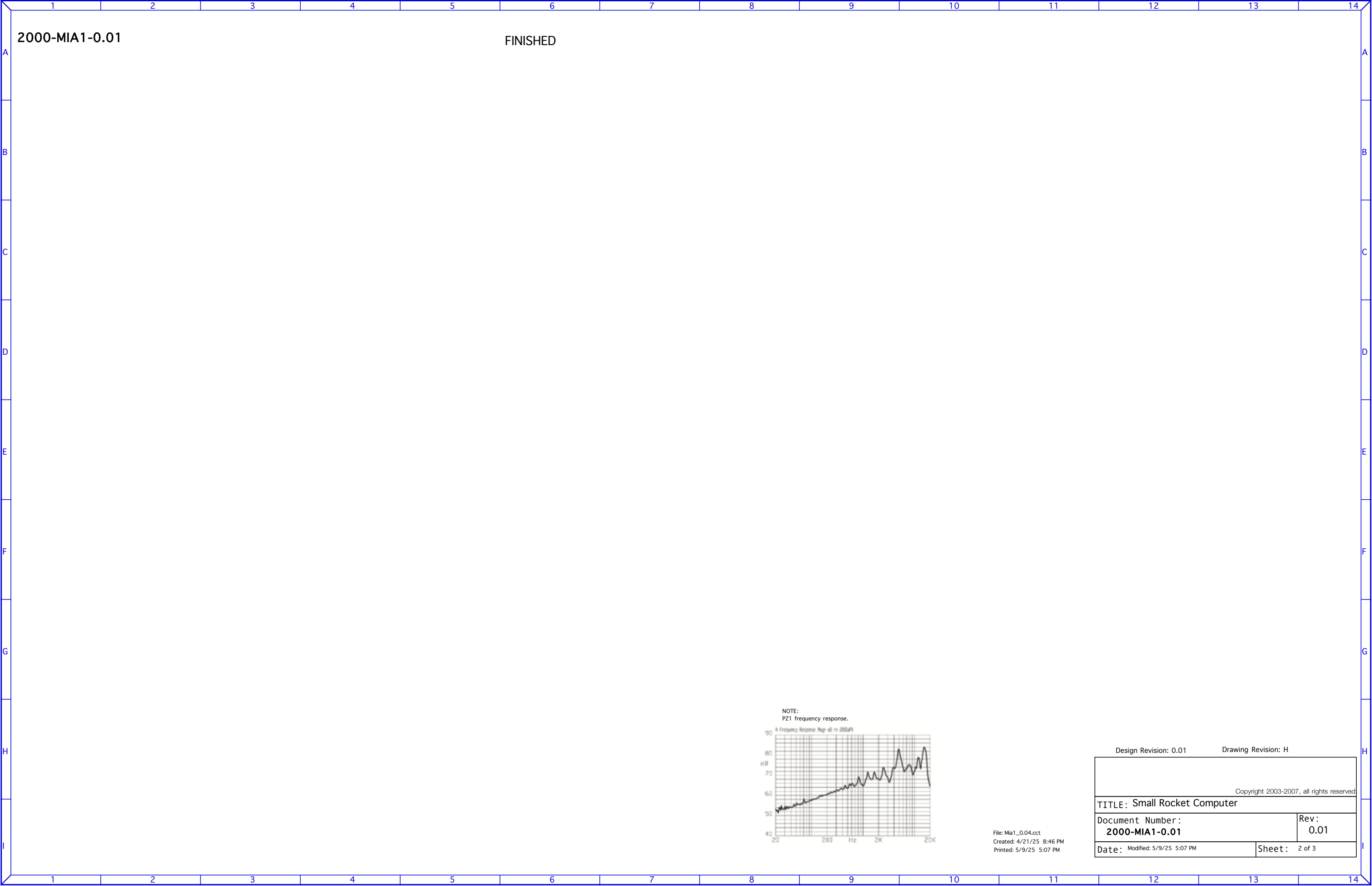
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Sheet: 1 of 3

File: Mia1_0.04.cct

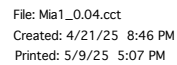
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NOTE:
FT230XQ has a V_{CC} min of 2.97V
and draws about 8 mA.



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