PCB SPECS

THICKNESS: 1.2 MM / 0.047 IN
1/2 OZ CU THICKNESS: 0.7 MILS
1.0 OZ CU THICKNESS: 1.4 MILS

IMPEDEANCE: 50 OHMS +/- 10%
DIELECTRIC: FR-4
LAYER COUNT: 12
SIGNAL TRACE WIDTH: 4 MILS
SIGNAL TRACE SPACING: 4 MILS
PREPREG THICKNESS: 2-3 MILS

SEE PCB CAD FILES FOR MORE SPECIFIC INFO.

BOARD STACK-UP AND CONSTRUCTION

```
<table>
<thead>
<tr>
<th>Layer</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>PREPREG (3MIL) SIGNAL (1/3 OZ + COPPER PLATING)</td>
</tr>
<tr>
<td>2</td>
<td>LAMINATE (4MIL) GROUND (1/2 OZ)</td>
</tr>
<tr>
<td>3</td>
<td>PREPREG (3MIL) SIGNAL (1/2 OZ)</td>
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<tr>
<td>4</td>
<td>LAMINATE (4MIL) SIGNAL (1/2 OZ)</td>
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<td>5</td>
<td>PREPREG (2MIL) GROUND (1/2 OZ)</td>
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<td>6</td>
<td>LAMINATE (3MIL) CUT POWER PLANE (1 OZ)</td>
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<tr>
<td>7</td>
<td>PREPREG (2MIL) CUT POWER PLANE (1 OZ)</td>
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<tr>
<td>8</td>
<td>LAMINATE (4MIL) GROUND (1/2 OZ)</td>
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<td>PREPREG (4MIL) SIGNAL (1/2 OZ)</td>
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<td>12</td>
<td>PREPREG (3MIL) SIGNAL (1/3 OZ + COPPER PLATING)</td>
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PCB BOARD STANDOFFS

BOARD HOLES

---

www.vinafix.vn
LEFT USB PORT

PUT L4, L5 AND L6 ACROSS THE MOAT

PLACE R3-R7, R24, C4-C6, Q4, PD1 CLOSE TO U2

LEFT USB / SENSOR CONNECTOR

USB & ALS

APPLE COMPUTER INC.
REV.

SIZE OF SHEET: A4

DRAWING NUMBER: 051-6474

NOTICE OF PROPRIETARY PROPERTY

I agree to the following:

I agree to the following:

www.vinafix.vn
POWER CONNECTOR

DC POWER JACK

PLACE C2, C3 AND C16 CLOSE TO J1
PLACE L1, L2 AND L3 CLOSE TO J1

CHARGE LED SUPPORT

DC POWER INTERFACE
Notice of Proprietary Property

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2. Not to reveal or publish in whole or part.
3. Not to reproduce or copy it.

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Differential Signals

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<th>MIN_LINE_WIDTH</th>
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<th>MATCHED_DELAY</th>
<th>NET_SPACING_TYPE</th>
<th>SEPARATION OF TRACES</th>
<th>TRACE WIDTH</th>
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<td>USB_DP:L4.2:J1.3:20</td>
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<td>ALS_MAX4236_IN+: 10 MIL</td>
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Revision History

04/22/03 - Design originated from 051-6282
04/28/03 - Pg 3 - Replaced R19 & R23 with 250-Ohm 2A Ferrites (Table item)
04/29/03 - Pg 4 - Replaced R19 & R23 with L5 & L6 (Pad change for Ferrites)
07/24/03 - Production release
08/28/03 - Pg 4 - Changed C3 to 0.1µF 0805 (Was 0.01µF 0603)
04/29/03 - Pg 2 - Replaced R2 with C16 0.1µF 0805 (Was 0-Ohm 0402)
04/29/03 - Pg 1 - Replced R1 with C18 0.1µF 0805 (Was 0.01µF 0603)

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### POWER NET CONSTRAINTS

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<th>GROUP</th>
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<td>+5V_USB_L</td>
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<td>+5V_USB_VDD</td>
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### Signal Cross-Reference for the entire design

- `+3V_MAIN`        : 6D6>
- `+5V_MAIN`        : 6D6>
- `+5V_USB_EMI_L`   : 6C6>
- `+5V_USB_L`       : 6C6>
- `+5V_USB_VDD`     : 6C6>
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- `+ADAPTER_FUSE`   : 6D6>
- `+ADAPTER_UF`     : 6D6>
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- `ADAPTER_DET_F`   : 6D6>
- `ADAPTER_DET_G`   : 6D6>
- `ADAPTER_DET_U`   : 6D6>
- `ADAPTER_DET_UF`  : 6D6>
- `ADAPTER_GND`     : 6D6>
- `ADAPTER_RING`    : 6D6>
- `ALS_GAIN`        : 6C6>
- `ALS_OUT`         : 6C6>
- `CHARGE_LED_D`    : 6C6>
- `CHARGE_LED_DRV`  : 6C6>
- `CHARGE_LED_L`    : 6C6>
- `CHARGE_LED_L_ESD`: 6C6>
- `CHARGE_LED_S`    : 6C6>
- `DC_PLUG_GND`     : 6D6>
- `DC_PLUG_TIP`     : 6D6>
- `GAIN_SETTING1`   : 6C6>
- `LEFT_USB_GND`    : 6C6>
- `LIGHT_SENSOR`    : 6C6>
- `MAX4236_IN+`     : 5C8<
- `MAX4236_IN-`     : 5C8<
- `MAX4236_OUT`     : 5C8<
- `OCI`             : 3C6>
- `PWRON`           : 3C6>
- `USB_DM_EMI_L`    : 5D2>
- `USB_DM_L`        : 5D2>
- `USB_DP_EMI_L`    : 5D2>
- `USB_DP_L`        : 5D2>
- `USB_ENABLE_H`    : 3C8<
- `USB_ENABLE_L`    : 3C8<
- `USB_EN_B`        : 3C8<

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