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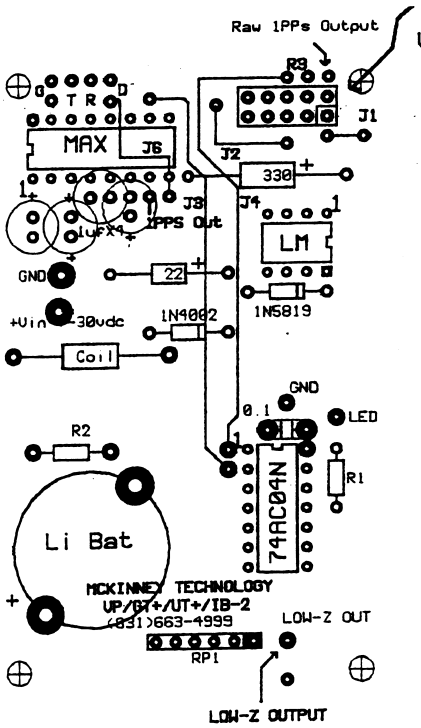
The VPGUIB is the updated VP ONCORE ™ Interface Board. This board provides support for the for the VP ONCORE ™, GT+ ONCORE ™ and the UT+ ONCORE ™ GPS engines. The VPGUIB is built and tested with a VP ONCORE and only requires your custom interface wiring (typical wiring hardware provided)..

This board features:
- Daughter board that is the same size as the GPS Engine
- A highly efficient regulator which provides 5 vdc @ 250 ma from a 7-40 vdc source, without heat sink.
- Direct RS232 connection for input and output control of the GPS engine.
- Second port available to support the DGPS input for the GT+ engines (at solder pad D for input).
- 1PPS output at RS232 levels for DCD signaling connected to DB9 pin1 (pin 6 on 10 pin header).
  -- Provides timing signal and needed for TAC32 software from TAPR.
- Provision for adding a lithium backup battery for GPS engines without the rechargeable backup battery.
- Provision for adding the TAC low-z 1PPS output (at bottom of board) with flashing LED indication.

Board wiring comments:
- For DGPS inputs, the input is though RXB (DB9-3), which is the same input for commands to the GPS (the only exception is the GT+ which has it's own RXB input of DGPS and is at solder pad D). You can use a SPDT switch to switch RXB from DGPS input to PC input, on DB9-3. Or use a mini phone jack with a NC switch. Wire the jack to pass RXB to DB9-3, when the plug is not installed and wire the jack to send DGPS signals to DB9-3, when plug is installed (DGPS connected through plug).



UPGUIB connection wiring

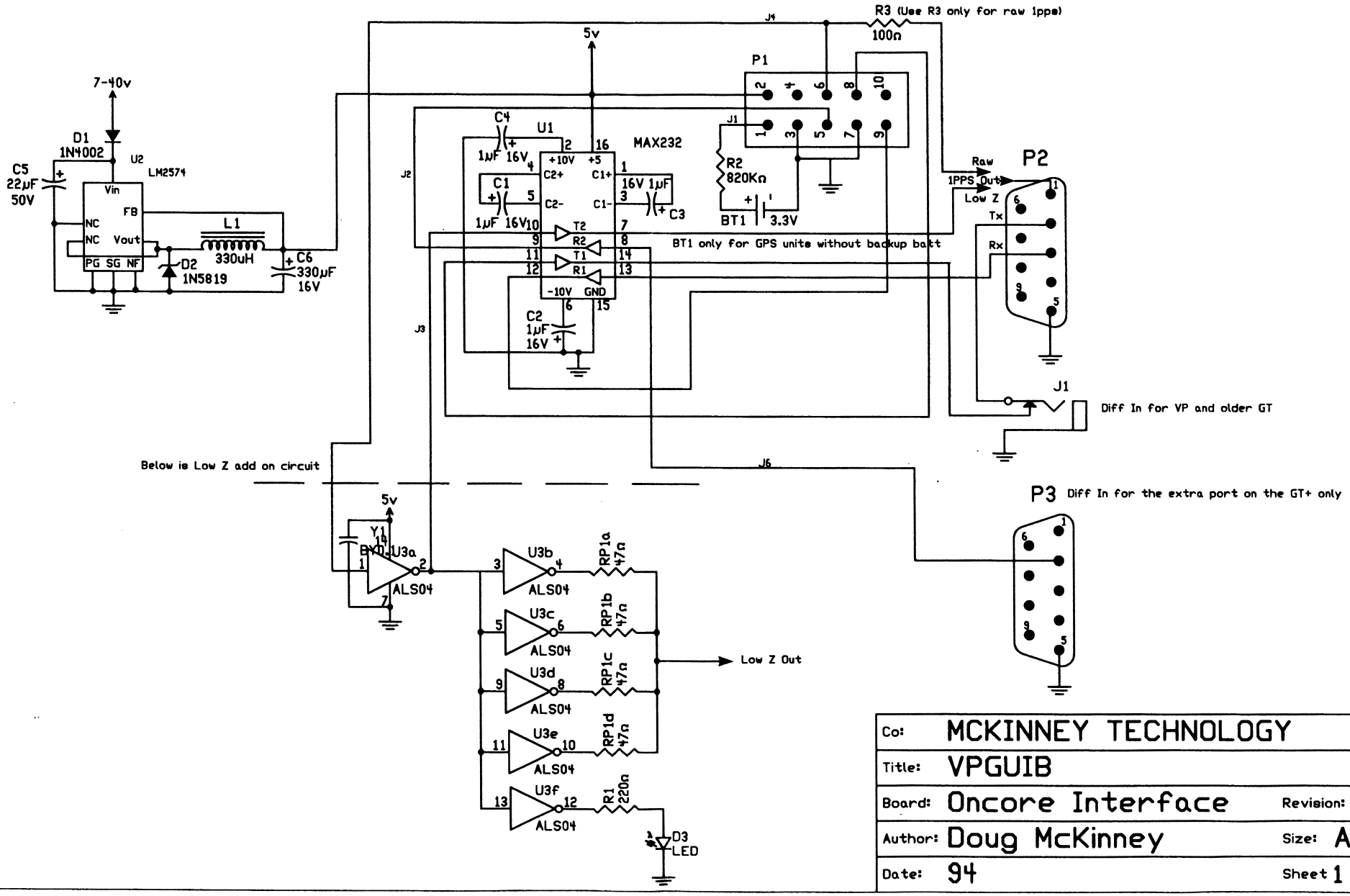
G=Ground (DB9-5)
T=TXB (DB9-2)
R=RXB (DB9-3)
D= For GT+ ONLY, it is the DGPS input and do the following:
(J6 (MAX pin 8 to pad D) used with D)
(Add jumper J2)
Raw 1PPS at output of R3 and route to (DB9-1)
Vin 7-30vdc=red wire for B+
GND= brown wire to power GND

Adding lithium battery (Only for GPS without battery)

Li batt BR2325 (DigiKey P202-NC) Observe polarity!
R2= 750k 1/4w
Add jumper J1

Adding TAC hardware

IC=74AC04
C = 0.1uf 50v axial
R1 = 220ohm 1/4w
RP1 = bused 5-51ohm (DigiKey 770-61-R51-ND)
LED
Add jumpers J3 and J4
Use 1PPS MAX pin 7 to DB9-1 and not RAW 1PPS
Low-z output now availble
LED turns on and off for each 1PPS
1PPS is also availble from the LOW-Z connection



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Title:	VPGUIB
Board:	Oncore Interface — Revision: A
Author:	Doug McKinney — Size: A
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