

Drive this node with Tri-State output of FPGA.  
 A pull-up will deliver a positive unit pulse.  
 A pull-down will deliver a negative unit pulse.

Balanced output to minimise noise on the board during an event.

Note to FPGA designer:  
 'COINCIDENCE\_OUT\_Nbx' lines must 'float' when not signaling (ie high-Z state of tri-state output). Both positive and negative pulses are permitted by pulling up or down on the inputs to the driver op-amps.

Thresholds should be +/- 0.063V or so above and below COINC\_REF.

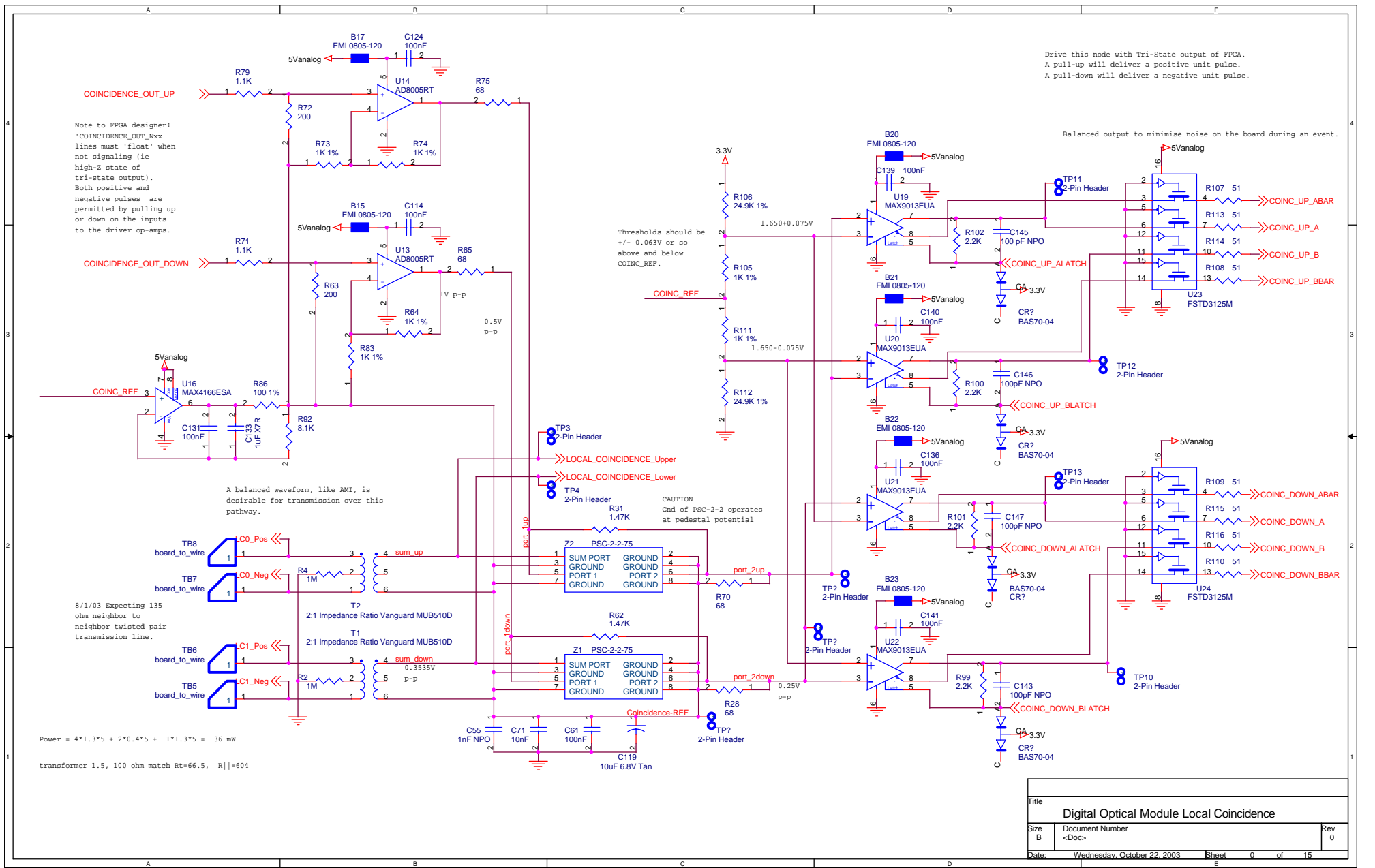
CAUTION  
 Gnd of PSC-2-2 operates at pedestal potential

A balanced waveform, like AMI, is desirable for transmission over this pathway.

8/1/03 Expecting 135 ohm neighbor to neighbor twisted pair transmission line.

Power =  $4 \cdot 1.3^2 \cdot 5 + 2 \cdot 0.4^2 \cdot 5 + 1 \cdot 1.3^2 \cdot 5 = 36 \text{ mW}$

transformer 1.5, 100 ohm match  $R_t = 66.5, R_{||} = 604$



Title			
Digital Optical Module Local Coincidence			
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