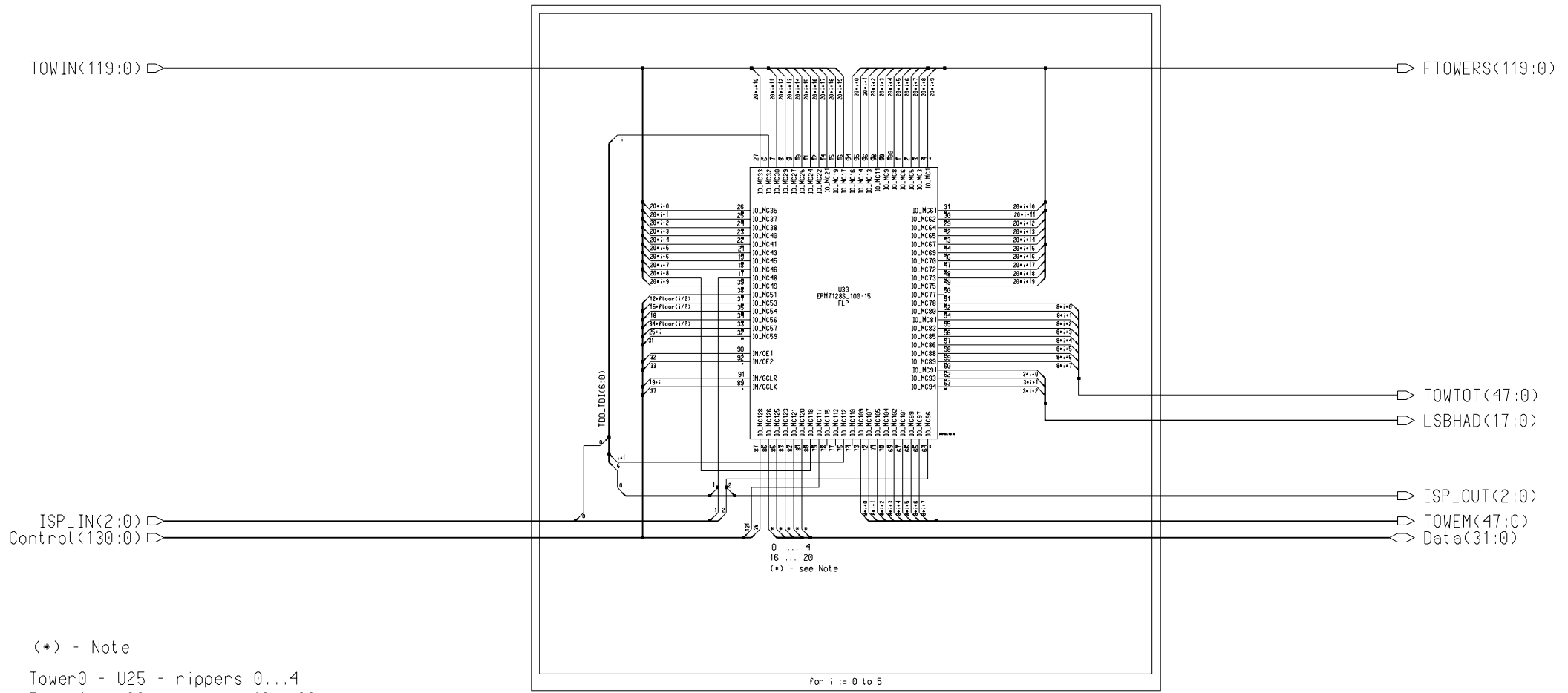


# Control Signals

- Control(14:12) - EM VME Clock
- Control(17:15) - HAD VME Clock
- Control(18) - Selector for the Had/Em Bits
- Control(24:19) - EM Masking Bits
- Control(30:25) - HAD Masking Bits
- Control(31) - VME Data Select Bit 0
- Control(32) - VME Data Select Bit 1
- Control(121) - VME Data Select Bit 2
- Control(33) - Enable Tower Data\*
- Control(36:34) - VME Select for Reading\*
- Control(37) - Tower Clock
- Control(38) - Select for Energy Granularity

- ISP INPUT
- ISP\_IN(0) - TDI From Previous Chip in Chain
  - ISP\_IN(1) - TMS Signal
  - ISP\_IN(2) - TCK Signal

- ISP OUTPUT
- ISP\_OUT(0) - TDO To Next Chip in Chain
  - ISP\_OUT(1) - TMS Signal (Tied to ISP\_IN(1))
  - ISP\_OUT(2) - TCK Signal (Tied to ISP\_IN(2))



ISP\_IN(2:0)  
Control(130:0)

(\*) - Note

- Tower0 - U25 - rippers 0...4
- Tower1 - U26 - rippers 16...20
- Tower2 - U27 - rippers 0...4
- Tower3 - U28 - rippers 16...20
- Tower4 - U29 - rippers 0...4
- Tower5 - U30 - rippers 16...20

**TDO\_TDI(6:0) Explanation**  
 TDO\_TDO(6:0) - This is the serial input and output for the 6 TOWLAT chips for ISP. The bus connects TDO of chip 0 to TDI of chip 1, TDO of chip 1 to TDI of chip 2, etc... Finally, bit 6 (TDO of chip 5) is tied to ISP\_OUT(0) to pass to the next chip in the chain.

DATE	REVISION DESCRIPTION
19 June 1996	Second Prototype - Major Changes to entire data path.
18 Nov 1996	3rd Prototype - Bug Fixes

UNIVERSITY OF CHICAGO  
ELECTRONICS DEVELOPMENT GROUP

TITLE  
**DIRAC / TOWLAT**

SHEET	15 OF 24	C-2351 REV C
DATE	18 Nov 1996	
DRWN	JW	