FUNCTIONS OF MASTER CONTROL CARD
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1. Clock Distribution
   32.25 MHz clock to:
   - FFT control cards (4)
   - MAC Control cards (4)
   - DPC (15? 30?)
   - Pulsar Machine (1)

2. Counters:
   FFT Cycle = 516 clock ticks, one FFT_INIT per FFT cycle;
   DLY_Cycle = 8k FFT cycles (128 ms approx); one DLY_LOAD per cycle.

3. Master Reset: Power On-Reset pulse (width?)

4. MASTER_INIT : Triggered by online computer; required in every scan;
   Distributed to: FFT Control Cards, MAC Control Cards,
   Pulsar Machine.

5. FFT_INIT : one pulse every FFT cycle, during the dead-time, delayed by
   different amounts for DPC, FFT Control, MAC control cards,
   and the Pulsar Machine.
   (lasts 4 ticks ? check requirements of DPC and FFT control,
   and inform Pulsar Group accordingly.)

6. DLY_LOAD: Once every 8k FFT cycles;
   Distributed to: FFT Control cards, DPC, Pulsar(?),
   and Data Acquisition System

Note: The clock distribution for the system also involves 32 MHz clock to be distributed to DPC (which gets both clocks), and the 30 Sampler Cards. The clock card will generate both clocks by the same source, to ensure a ratio of 512/516 between the two clocks. We have two choices for the distribution of 32 MHz clock. One way is to include this section also in the Master Control Card, if there is enough space in it. Alternatively, we can duplicate the clock distribution circuitry into the Clock Card to let it send the 32 MHz clocks directly to the DPC and the samplers. The final recommendation will depend on the details of the Master Control Card.