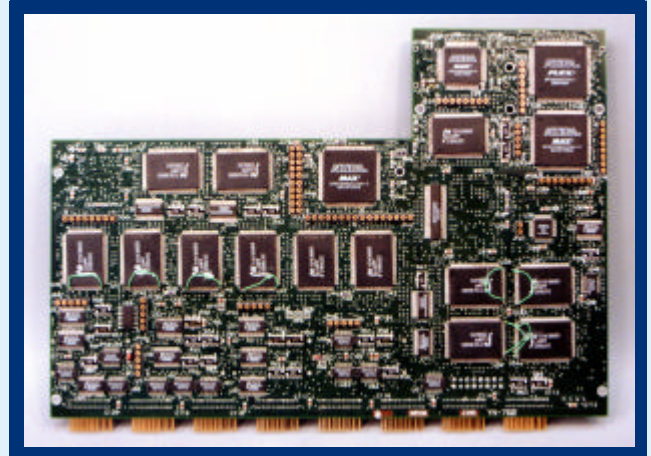


### Features

- 50 MHz Operation
- 8 TI C40 Communication Links 2 per C6x Node
- All four Nodes Connected to Shared Bus
- Data from RACEway bus can be passed through CT before Reaching Destination Node.



### Description

#### Model PIM 200

The MPEM is designed to add additional I/O capabilities to the Spectrum Monaco Quad C6x DSP board. It features 8 C40 style communication links (two per C6x node), a RACEway interface, and a coordinate translator that can do polar to rectangular or rectangular to polar conversions. Each communication port can be set to either an input or output port. Each C6x node has access to the RACEway through a shared bus interface. Data received from the communication ports can either be read directly by the C6x or an automatic transfer can be initiated by the C6x that sends the data directly to the RACEway bus. Data received over the RACEway bus is sent to the appropriate node and can be processed through the coordinate translator before it is sent to the destination node. The C6x can then read the data or initiate an automatic transfer to the communication ports.

### PIVC, L.L.C.

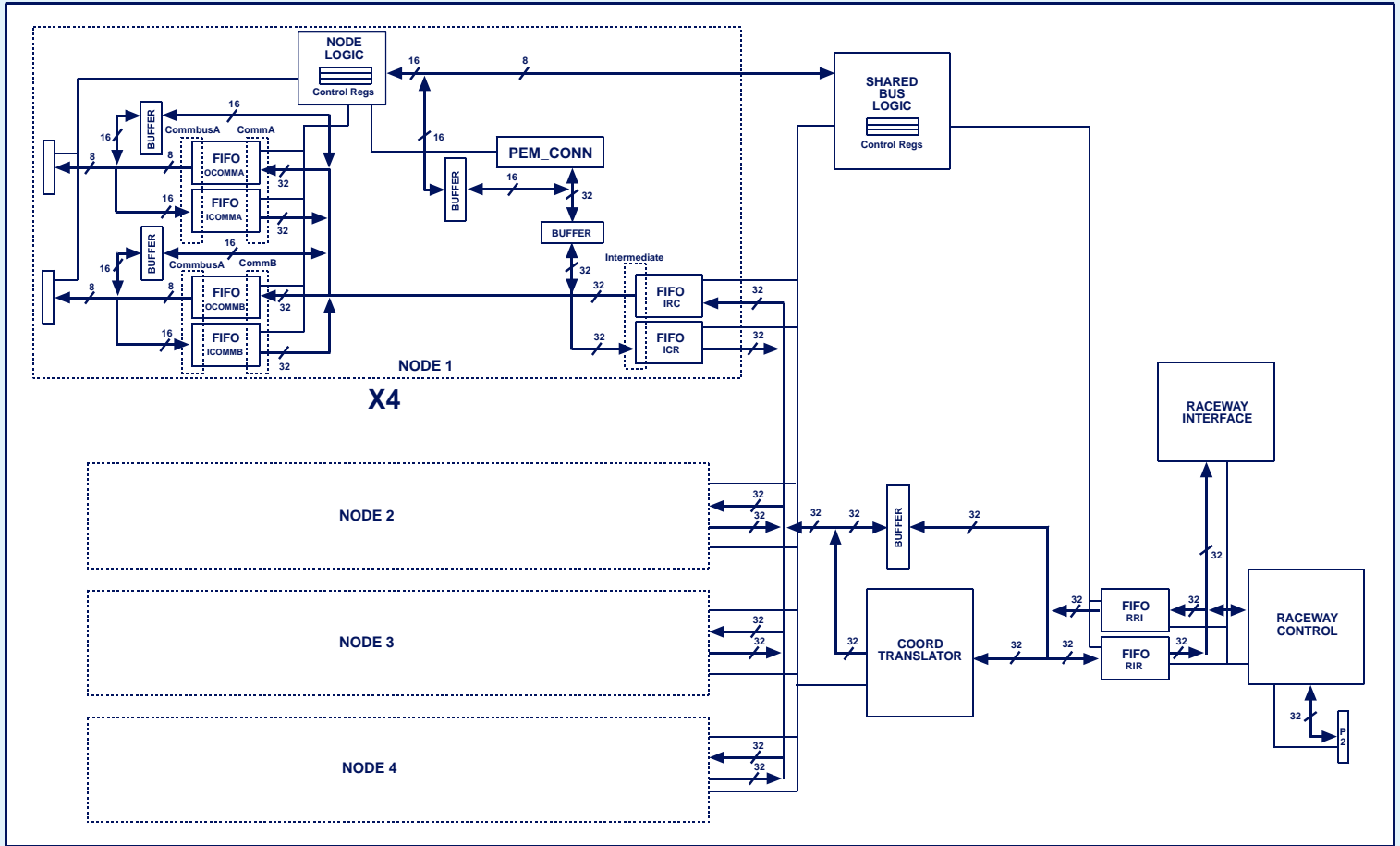
A Subsidiary of Phase IV Systems, Inc.

3405 Triana Boulevard

Huntsville, AL 35805-4695

Phone (256) 705-2219 Fax (256) 535-2110

Toll Free (877) 748-2552 info@pivc.com www.pivc.com



### Block Diagram

| MPEM SPECIFICATIONS      |   |
|--------------------------|---|
| C6x Interface            | Uses C6x EMIF Asynchronous Interface<br>Accesses take 20 C6x 200 MHz Clock Cycles<br>Bandwidth = 40 MB/sec Theoretical  |
| Comm Links               | 8 C40 Type Communication Links/2 per C6x Node<br>Each Programmable as Input or Output, but not True Bidirectional<br>4Kx32 FIFO for Each Port<br>Communication Port Data Rate = 10 MB/sec |
| Automatic Transfer Modes | 50 MHz Operation<br>Bandwidth = 100 MB/sec  |
| Shared Bus               | 50 MHz Operation<br>Bandwidth = 200 MB/sec  |
| Coordinate Translator    | 50 MHz Operation<br>22 Clock Cycle Latency  |
| RACEway Interface        | 40 MHz Operation<br>Bandwidth = 160 MB/sec  |
| Power                    | 3.3 V Operation<br>5.0 V for Coordinate Translator<br>2.8 A from 3.3 V Supply<br>0.4 from 5.0 V Supply  |