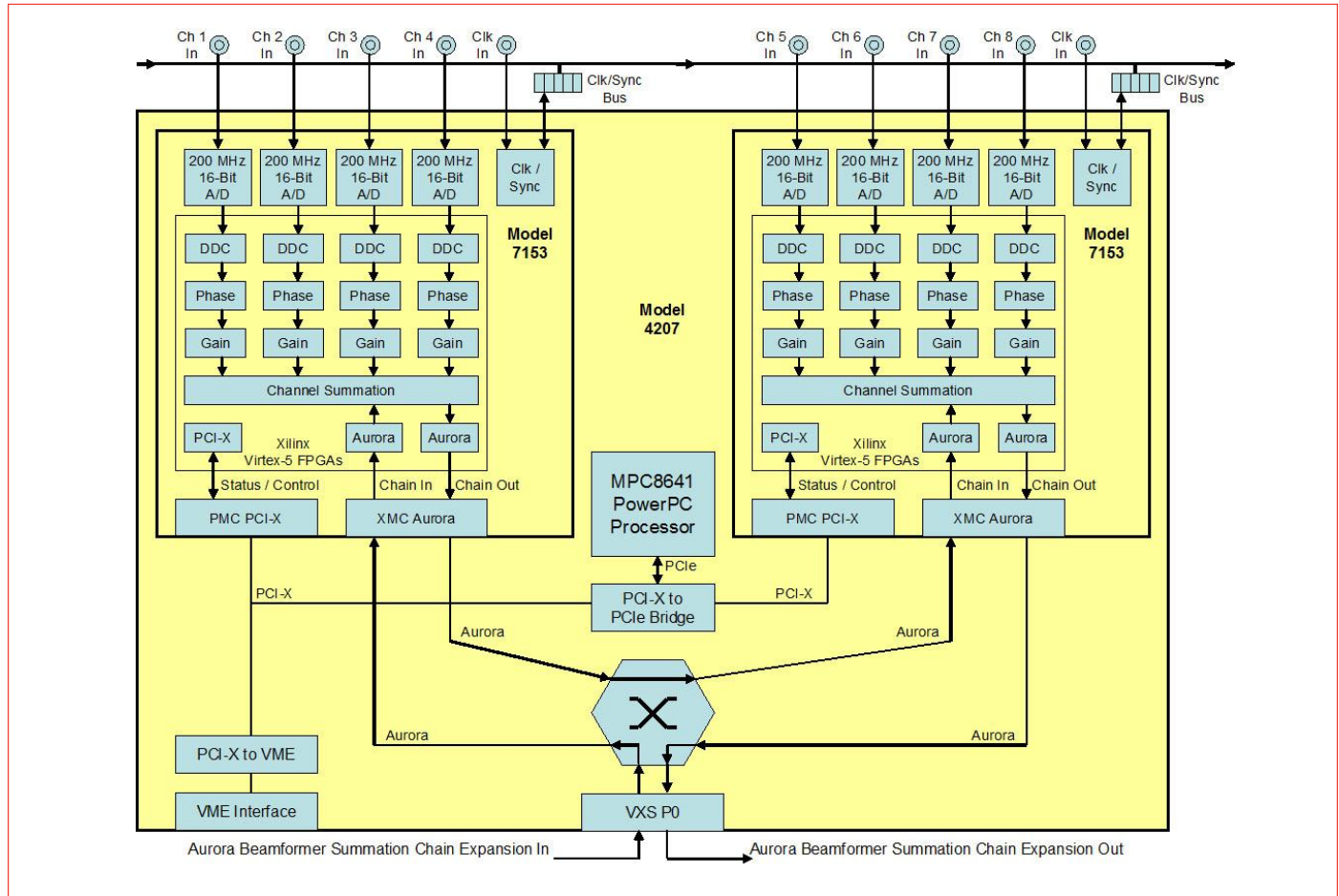


## Applications

### 8-Channel Beamforming System



The Model 7153 PMC module is high-speed digitizer featuring four 200 MHz 16-bit A/Ds with a high-performance 4-Channel DDC. Two such modules mounted on the Model 4207 PowerPC I/O processor can be used to create an 8-channel beamforming system. Two or more of these systems can be joined together to create multichannel systems with higher density.

The Model 7153 DDCs offer programmable phase and gain adjustments, power meters and a summation block that can be used to match all the beamformed channels.

Joining the sync/gate facilities of all 7153 modules supports synchronous sampling, triggering and gating of all channels.

Data from the first 8-channel system is beamformed using the PowerPC resources of the Model 4207 processor and then sent through VXS to the second system. Beamformed data from the second system is combined with the first, and then propagated through VXS to the next system or else to the destination for display, analysis or storage.

Each 4X VXS backplane link supports 1.25 GB/sec of traffic between boards.

Alternate methods for delivering the final beamformed output signals include front panel gigabit Ethernet to a network and Fibre Channel to a real-time disk array for real-time recording.