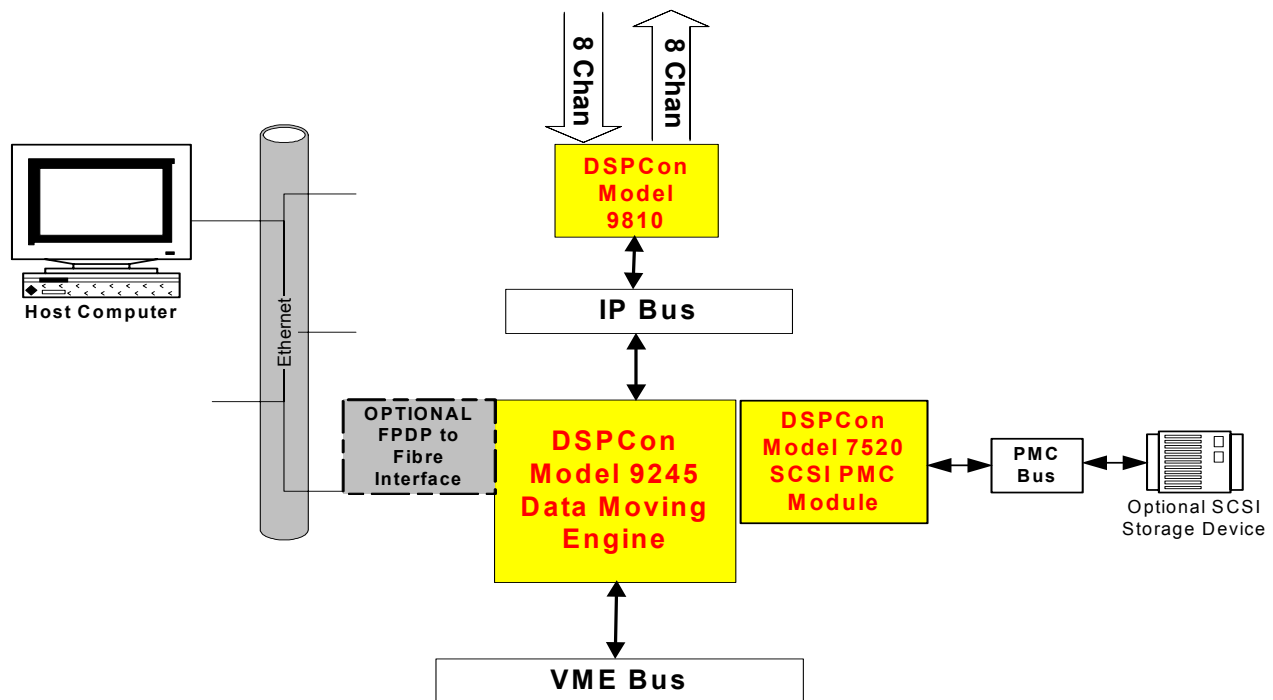


# System 2811

## Audio Data Acquisition, Record and Playback System with VoIP Option

DSPCon's System 2811 provides the ability to acquire, record and playback 8 channels of data with a single 6U VME card. In addition, this solution allows for operator selection of the data rate, via software control. Built around DSPCon's Model 9245, System 2811 is a cost-effective system that is made up entirely of commercial-off-the-shelf (COTS) products. Complete with user software that allows the operator to control all system functions, this system is robust enough to use as a stand-alone system and diverse enough to be used as a system-building core. As options, DSPCon offers device drivers and compression technology for VoIP capability.

### System Block Diagram



Acquiring, Processing and Managing the World's Data.

# System 2811

## Features

- Ethernet connection from the data acquisition unit to a host computer.
  - System 2811 is flexible in that it allows the user to select any number of host bases, including Windows XT or Vista, QNX, Linux, Sun, Unix, etc.
- Eight channels of analog I/O (A/D and D/A)
  - All eight channels are acquired and played back at 8 kHz to 100 kHz
- Minimum sampling rate of 8,000 samples/second
- Each sample rate is selectable under software control
- All eight channels are sampled simultaneously
  - Simultaneous data flow to host computer and disk drive
  - Operator control over individual channel acquisition
- Data acquisition, process, record and playback in a single 6U, VME card
- Contained on the 9245 is 64 Mbytes of DRAM that act as a data buffer should the network have other high priority traffic.
- All firmware required to record and playback data to from the host computer is contained in flash on the 9245.
  - This firmware also allows the host to set the sampling rate of the A/D and D/A.

## Options

- Host computer interface via Ethernet or Fibre
- Host OS can be Windows XP or Vista, QNX, Linux, Sun, Unix, etc.
- Drivers to provide VoIP capability
- Record device can be RAID, JBOD, Tape, DAT, etc.
- Variable memory options for DSPCon's Model 9245
- Flexible system is modular, allowing for "system stacking" to increase channel count
- FPDP to Fibre Channel interface

## Hardware

The core of System 2811 is DSPCon's Model 9245. The 9245 contains two PMC interfaces, an IP interface and a 10/100 Mbit Ethernet interface. The IP site is populated with DSPCon's Model 9810, which is an 8-channel, 16-bit A/D and D/A card for a total of 8 analog input and output channels. Each of the A/D cards contains an internal clock. One of the two PMC sites is populated by DSPCon's Model 7520 SCSI PMC Module for data transfer between the Model 9245 and the disk array. The other PMC site remains unpopulated, allowing for future system configuration modifications.

The 9245's 10/100 Mbit Ethernet interface is used for:

- Allowing the host computer to command and control the 9245.
- Passing sampled voice data from the 9245 to the host.

## Software

DSPCon's System 2811 is delivered with a sockets-based C language API that will run on the host computer, and allows for the following functions:

- Start record
- Stop record
- Set the record A/D rate
- Start playback
- Stop playback
- Set the playback A/D rate
- Select the number of active channels
- Select the sampled width on each channel

