

# System 2712

## 2, 4, 6, 8 or 10 Channel Modular PCM Recorder/Reproducer with Voice & Time Code

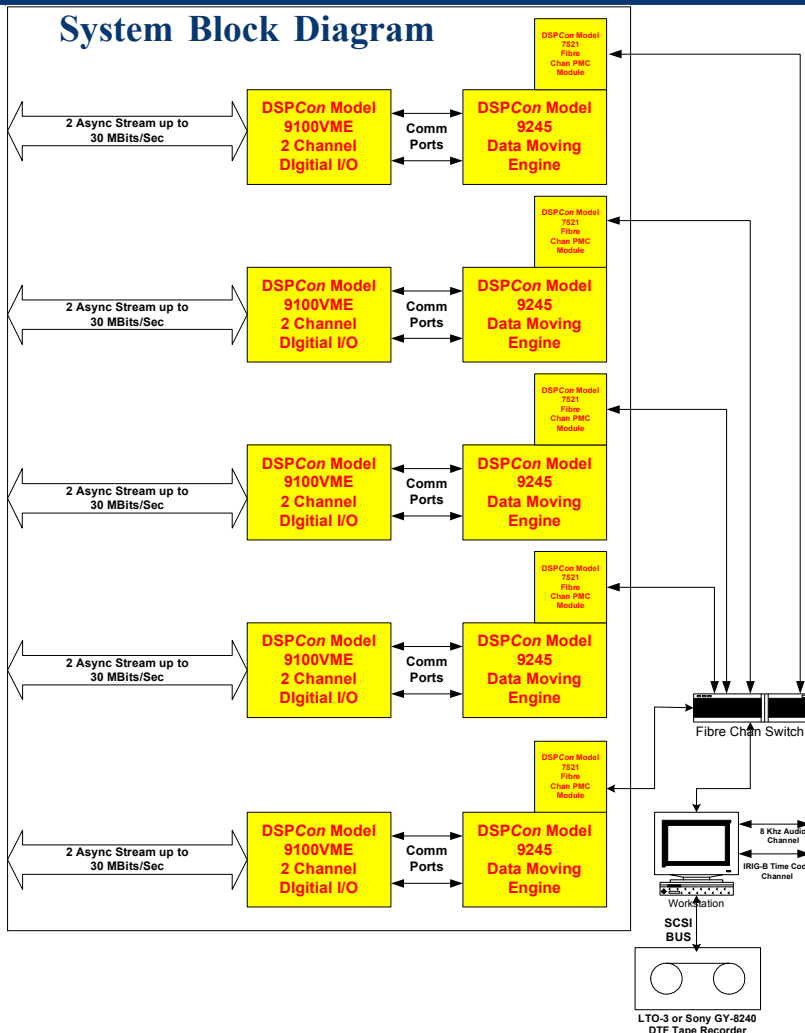
DSPCon, the leader in digital signal processing solutions, now offers a state-of-the-art system designed to acquire, record and playback 50 MBIT/second PCM data in a single rack-mountable or portable VME chassis. With a user-friendly graphical user interface, the ability to record and playback data with desktop control has never been so easy. In addition, this versatile system is scalable, allowing the user to select from two to ten channels with asynchronous recording. Additional options include the choice of a LTO-3 or Sony GY-8240 recorder and various electrical interfaces, including TTL and RS-422.

The screen to the right shows how the graphical user interface appears on a standard desktop PC running Windows NT operating system. This easy-to-use tool allows for operator command and control of all system functions, as well as the ability to mark critical data points at any time during the acquisition and record process.



The Graphical User Interface (GUI) provides user-friendly operator command and control via a remote or local host PC. This displays the mode, time and date, as well as the tape position and tape usage percentage. It also provides the ability to inject commented or uncommented tape marks.

### System Block Diagram



### Data Flow

System 2712 acquires up to ten asynchronous channels of 50 MBits/second PCM data via the DSPCon model 9100VME digital I/O card, which then passes the data to a DSPCon Model 9245 DSP baseboard where the data is processed and streamed to a DSPCon Model 7521 Fibre Channel PMC module. Finally, this PMC module routes the data to a fibre channel switch, which communicates with a workstation and records the data to a LTO-3 or Sony GY-8240 DTF recorder. Using the DSPCon designed graphical user interface, the reverse is also possible. Data can be extracted from the recorder and routed back out to the source with up to .001 Hz of the recorded input rate.

This system also provides the ability to record one voice channel and one IRIG-B channel, as well as the ability to search for IRIG timecode.



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## Hardware

- Portable or rack-mountable, 6U, 6-slot VME chassis
- Five DSPCon Model 9245 DSP baseboards
- Five DSPCon Model 7521 Fibre Channel PMC Modules
- Five DSPCon Model 9100 VME digital I/O interface boards
- Recorder (LTO-3 or Sony GY-8240)
- Fibre Channel Switch
- Host Computer

DSPCon's PPC DSP Baseboard processes the data using a Power PC processor and routes it to the recording device via an on-board DSPCon SCSI PMC Module.



DSPCon's Model 7521 Fibre Channel PMC Module is housed on the DSPCon Model 9245 baseboard and is used to port the processed data to the recording device.



DSPCon's Model 9100 VME captures two channels of digital data and passes it to the DSP baseboard. Also available in a VXI form factor, the Model 9100 offers a form-factor choice for System 3111.



## Features

- Modular and easily expandable using a storage area network (SAN) architecture
- Record and playback in a rack-mountable or portable VME chassis
- Asynchronous recording of 2, 4, 6, 8 or 10 channels
- Channel playback with up to .001 Hz of the recorded input rate
- Additional record and playback functionality of a voice channel and an IRIG-B channel
- User selectable record duration and storage capacity with choice of LTO-3 or Sony GY-8240 recorders
- Ability to search for IRIG timecode

## Options

- 100 Mbit RS-422 Transceiver Input/Output Module
- TTL Transceiver Input/Output Module
- TTL Transceiver with FPGA
- RS-422 Transceiver with DSP
- Two, four, six, eight or ten channels
- Portable or rack-mountable VME chassis
  - LTO-3 or Sony GY-8240 recorder
  - LTO-3 = 400 GBytes of data per cartridge
  - Record duration =  $400 * 8 (\# \text{ of channels} * \# \text{ of bits/second/channel})$
  - GY-8240 = 200 GBytes of data per cartridge
  - Record duration =  $200 * 8 (\# \text{ of channels} * \# \text{ of bits/second/channel})$

Data Rate (Mbits)				
Channels	2.5	10	20	30
2	88	22	11	7
4	44	11	6	4
6	29	7	4	2
8	22	5	2	1
10	17	4	2	1

Record time (in hours) for a single Sony GY-8240 tape cartridge

Data Rate (Mbits)				
Channels	2.5	10	20	30
2	176	44	22	14
4	88	22	11	7
6	58	15	7	5
8	44	11	5	3
10	33	8	4	2

Record time (in hours) for a single LTO-3