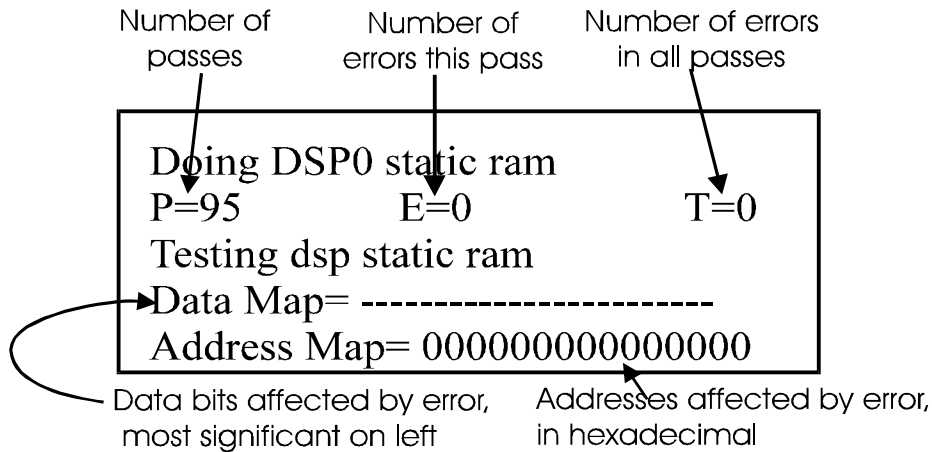# Technical Note #78

Eventide the next step

Using the DSP4000 built-in DSP Ram tests.

1) Enter the built-in selftest menu system by holding down key [5] and powering up. Do not release key [5] until you see the message "Hit SELECT to start test...."

2) Spinning the knob will allow one of a large number of tests to be selected (see Service Manual for more info on these).

3) The tests relevant to DSP RAM are:
 ◆ DSP0/1 internal ram
 ◆ DSP0/1 static ram
 ◆ DSP0/1 dynamic ram

All these tests show a similar screen display - the example below is that for DSP0 static ram.

Number of passes   Number of errors this pass   Number of errors in all passes

```
Doing DSP0 static ram
P=95          E=0              T=0
Testing dsp static ram
Data Map= -----------------------
Address Map= 000000000000000
```

Data bits affected by error, most significant on left

Addresses affected by error, in hexadecimal

Interpretation of errors is covered on the next page.

Interpretation of test results:

First Test Failed	Bits shown failing test						
	All or most	**One or more in group**					
		D20-23	D16-19	D12-15	D8-11	D4-7	D0-3
DSP0 internal ram	U65,many	U65					
DSP0 internal ram	U79,many	U79					
DSP0 static ram	U65, U63	U74		U73		U72	
DSP1 static ram	U79,U77	U88		U87		U86	
DSP0 dynamic ram	U65, 63, 62, 64, 60	U71	U70	U69	U68	U67	U66
DSP1 dynamic ram	U79, 77, 75, 76, 78	U85	U84	U83	U82	U81	U80