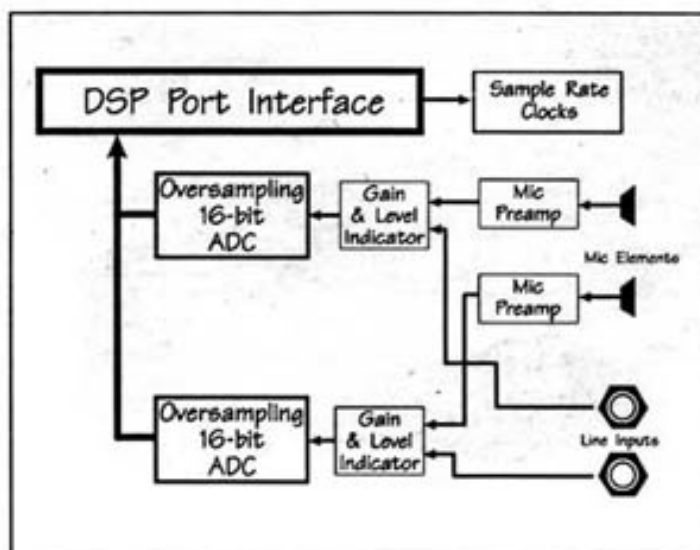




# DM-N

## Digital Microphone for DSP Ports



### Digital Audio Input for Any PC or Workstation.

The DM-N™ Digital Microphone is a complete, self-contained analog input interface for any computer or DSP processor board that provides serial I/O capabilities compatible with the NeXT™ DSP Port. A DSP Port connection is available on all NeXT computers (both NeXT Cubes and NeXT Stations), and on many Ariel DSP products. DSP Ports are presently available on the following products and computer platforms:

- S-32C, S-56 and S-56X for the Sun SPARCstation™
- V-56 and QuadProcessor for VME
- PC-56D, PC-32C/M and DTK-C30 for the IBM PC/AT/ISA/EISA world
- MAC-56 for the Apple Macintosh™
- DSP-300 for Hewlett-Packard workstations
- QuintProcessor™ and the IRCAM Signal Processing Workstation™ for the NeXT Cube

### A Leap Forward in Microphone Technology

The Ariel Digital Microphone is the world's first microphone based wholly on digital electronics. The sleek, compact case contains all of the components needed to convert sound waves to a digital data stream.

### Oversampling 16-bit Inputs

CD-quality analog input is brought to any and all of these platforms by the DM-N. The Digital Microphone incorporates the latest 16-bit oversampling technology for the input converters, combined with both microphone- and line-level inputs, peak-catching level indicators, and continuously adjustable gain controls.

The oversampling sigma-delta A-to-D converters incorporate near-perfect digital, tracking antialias filters. Five crystal-controlled sample rates from 88.2 kHz to 5 kHz (per channel) are available, including the audio industry-standard rate of 44.1 kHz.

### A Data Acquisition Instrument

Applications for the DM-N go far beyond voice recording. External signals from CD players, FM receivers or other audio sources can be connected to a pair of rear-panel mini-phone input jacks. For instrumentation and industrial control applications, this external input capability can be used to convert signals from a wide variety of sources, from accelerometers to thermocouples. Each input can accept either single-ended or differential signals and the DM-N's sample rate can be selected (via software control) to match the bandwidth of the signal of interest.

### Specifications

Sampling rates .....	88.2 kHz 44.1 kHz 22.05 kHz 11.025 kHz 5512 Hz
A/D dynamic range ...	92 dB
THD.....	Under .005%
Frequency Response	DC to 42% of sample rate: +0 to -.5 dB
Input connector .....	Mini-stereo
Input type.....	Differential or single-ended
Input gain.....	150 mV to 3V RMS
Input impedance .....	10 K $\Omega$ differential, 5 K $\Omega$ , single-ended
Power supply .....	Supplied by DSP Port
Cable length.....	2.5 meters
Size.....	16 cm x 2.5 cm x 3.7 cm

For high quality audio input and 16-bit two channel data acquisition, the DM-N is an elegant and cost-effective solution.

### Ordering Information

Digital Microphone .....DM-N