

# A Guide to Digital Tape Recorder Specifications (and a PCM Picture Book as well)

Manufacturer	Audio Channels	Digital Tracks	Frequency Response	THD	Dynamic Range	Cross-Talk	Sampling Rate	Quan.	Tape, Speed
Denon	8	VTR	DC -20 kHz +0.2,-1	<0.1 %	>89 dB	>80 dB	47.25 kHz	14	2"
JVC	2	VTR	DC -20 kHz $\pm$ 0.5 dB	<0.02 %	>90 dB	not given	44.056kHz	16	U-Matic
Mitsubishi	32	40	10 Hz-20 kHz $\pm$ 0.3 dB	<0.02 %	>90 dB	>80 dB	50.4 kHz	16	1", 30 ips
Mitsubishi	2	8	20 Hz-20 kHz +0.5,-1	<0.05 %	>90 dB	>85 dB	50.4 kHz	16	.25", 15 ips
Sony	48	96	20 Hz-20 kHz +0.5,-1	<0.05 %	>90 dB	not given	44.056kHz	16	2", 22.5 ips
Sony	2	VTR	20 Hz-20 kHz +0.5,-1	<0.05 %	>90 dB	>90 dB	44.056kHz	16	U-Matic
Soundstream	8	not given	DC -21 kHz +0.5,-1	<0.004%	>90 dB	>85 dB	50.0 kHz	16	1", 35 ips
Technics	4	16	20 Hz-20 kHz $\pm$ 0.5 dB	<0.05 %	>90 dB	>70 dB	50.4 kHz	16	.25", 15 ips
3M	32	32	10 Hz-20 kHz +0.5,-3	<0.03 %	>90 dB	>90 dB	50.0 kHz	16	1", 45 ips



Figure 1. An artist's conception of an early 3M editing system. When pre-production prototypes were judged overly complex for routine editing chores, the system seen in Figure 2 was developed.



Figure 2. The current 3M digital editing system was described in the February, 1980 issue of db.

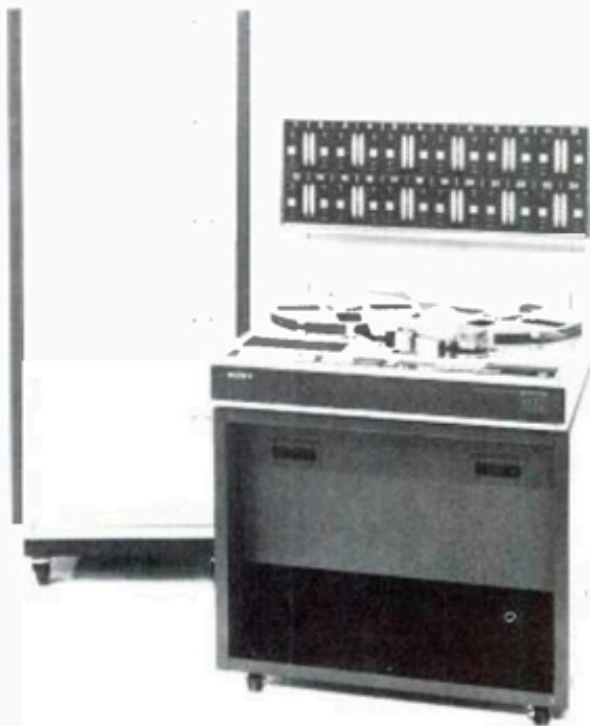


Figure 9. A prototype version of Sony's PCM-3324 Digital Recorder.



Figure 10. An Ampex digital prototype, offering four channels on quarter-inch tape (50 kHz sampling rate). A series of experimental sessions are planned for later this year.



Figure 11. The Sony PCM-3204 four-channel digital tape recorder.



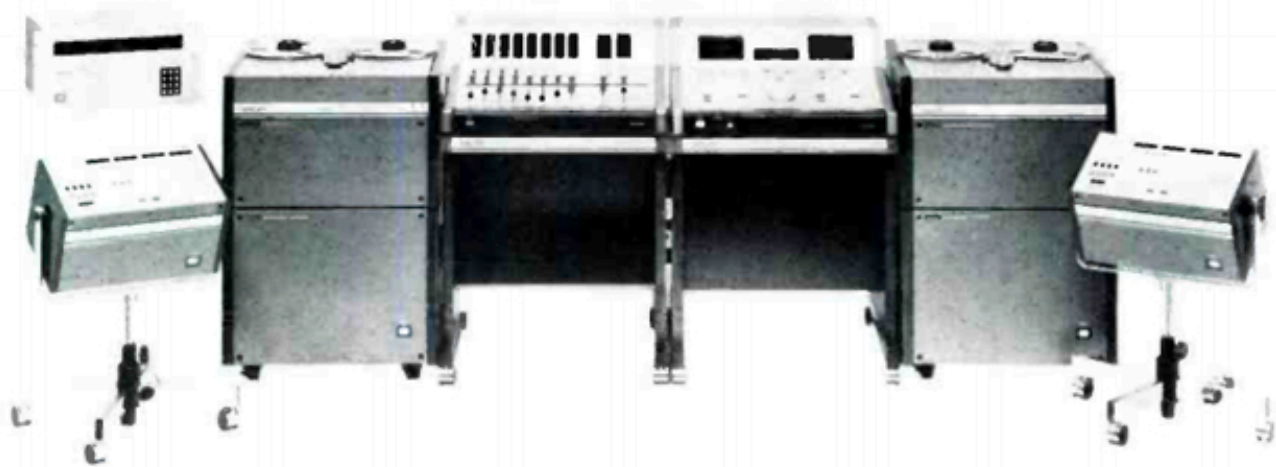
Figure 3. Technics Editing Controller.



Figure 4. Sony DAE-1100 Digital Editor.



Figure 5. JVC Series 90 Digital Audio Mastering System, incorporating video tape recorders.



*Figure 6. Technics Digital Audio Recording System, using open-reel recorders.*



*Figure 7. Peter Jensen of Digital Recording Systems at a Metropolitan Opera recording session. In front of him are: Sony's BVE-500A editing console, a Sony PCM-1600 Digital Processor, and a Mark Levinson preamplifier.*



*Figure 8. An experimental four-channel recorder from Technics.*