Nakamichi // // /-5 3-Head Cassette Deck Test Results

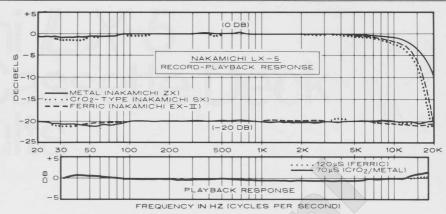


test reports

• Laboratory Measurements. Nakamichi provided the actual samples of their ZX (metal), SX (CrO2-equivalent), and EX-II (ferric) tapes used for the factory adjustment of the LX-5 I tested, and these became the "references" for my measurements. However, substantially similar results were obtained with Maxell UD-XLI, TDK AD, and 3M Master I (ferric); TDK SA, BASF Professional II, PD 500 Crolyn, and Maxell XLII-S (high-bias); and Memorex Metal IV, Sony Metallic, and TDK MA-R. My samples of Fuji FX-I and Loran Ferric showed a slight loss at 20 kHz, and Fuji Metal and TDK SA-X (high-bias) showed a slight rise at that frequency, but all were well within the control range of the LX-5's bias-adjustment facility.

The playback-response curves shown in the accompanying graph for 120- and 70-microsecond tapes are so nearly perfect that they call for no comment beyond noting that they were made using the new BASF standard calibrated test tapes, which extend the measurement range from 31.5 Hz to 18 kHz in accordance with the new IEC measurement standard.

Overall record-playback response, measured at the usual -20-dB level, was so flat



The upper curves indicate overall record-playback response at the manufacturer's indicated 0-dB recording level using the tapes designated on the graph. In the center are the same measurements recorded at -20 dB relative to the upper curves, a level conventionally used for tape-deck frequency-response measurements. Bottom curves show playback response from calibrated cassettes and indicate the deck's ability to play prerecorded tapes.

across the 20- to 20,000-Hz range that it is almost pointless to put it in the graph. Even at 0 dB (which indicated 1 dB higher than

my Dolby-level calibration tape), neither metal, ferric, nor chrome-type cassettes were down by more than 2.5 dB at 10 kHz—truly extraordinary performance. Wow-and-flutter, measured with the TDK AC-342 test tape, was only 0.026 per cent on the customary weighted-rms standard and approximately 0.05 per cent on the peak-weighted DIN measurement.

Third-harmonic distortion at 0 dB measured 0.32, 0.27, and 0.29 per cent for the Nakamichi ZX, SX, and EX-II formulations, and their respective headroom before reaching 3 per cent third-harmonic distortion was an additional 9, 8, and 7.2 dB. With reference to the 3 per cent distortion point, the unweighted signal-to-noise ratios were 56.5 dB for ZX and SX, 53.4 dB for EX-II. Adding Dolby-B and CCIR/ARM weighting increased these figures to 66.7, 66.8, and 63.8 dB, respectively, for the three tapes. And with Dolby-C added, the signal-to-noise ratios (again CCIR/ARM weighted) measured, respectively, 75 dB for the metal and CrO2-type tapes, 72.5 dB for the ferric.

Dolby tracking, measured at -20-, -30-, and -40-dB levels, was within ± 1 dB with Dolby-B and within ± 2 dB with the more effective Dolby-C throughout the 20- to 20,000-Hz range. The line input had a 50-millivolt sensitivity for a 0-dB indication, at which point the output was 0.96 volt. Fast-forward and rewind times were 55 and 50 seconds for a C-60 cassette.

● Comment. The Nakamichi LX-5 is a superb cassette deck, remarkable in performance, simple in operation and styling. Dubbing from various sources—LPs, FM, and even master tapes—produced impeccable copies, and even when using FM hiss as a test signal it was virtually impossible to distinguish between the original and the taped copy (using metal tape). Apart from the demands of a laboratory recorder (variable equalization, bias-monitoring jacks, etc.), this is perhaps the finest deck I have yet tested. —Craig Stark

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Yes, that's a very good point, madam. Aside from

the excellent bass response, this is a speaker

your guests will not be sitting on.



Nakamichi Corporation Tokyo Office

Shinjuku Daiichi Seimei Bldg., 2-7-1 Nishishinjuku, Shinjuku-ku, Tokyo Phone: (03) 342-4461 Telex: 2324721 (NAKAM J)

Nakamichi U.S.A. Corporation

1101 Colorado Avenue, Santa Monica, California 90401 Phone (213) 451-5901 New York Office: 220 Westbury Avenue, Carle Place, N.Y. 11514 Phone (516) 333-5440