

Conservative claims and specifications are not only the philosophy of McIntosh but are a time proven tradition at McIntosh. McIntosh alone guarantees the advertised performance capabilities of each McIntosh, of your McIntosh, to further assure you that you own the world's best! "Rated with honesty and conservatism . . ." * are the words of independent authorities when writing of McIntosh. Every performance requirement is carefully and diligently analyzed and verified using the latest, most sensitive test equipment following internationally recognized and accepted testing procedures. McIntosh refuses to indulge itself in performance claims and ratings that result from scientifically indefensible allegations.

Every McIntosh must meet rigid, demanding and meaningful performance standards. When you invest in your McIntosh you know you are investing in The Best!

*High Fidelity



C 33 Control Center

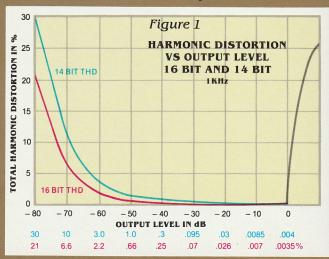
Digital ready?

We live in an age of rapidly expanding technology. So rapid is this pace that new words are continuously invented to apply to new processes and new things. Unfortunately when change is occurring at this rate it is easy for the charlatans of this world to make claims in new language symbols that lack the rigor of decades of definition.

Figure 1 is the distortion curve for an outstanding digital encoding device. The curve follows almost precisely the theoretical curve that results from 14 bit or 16 bit quantizing and is the same as can be expected from Compact Discs and their players. There are some points to make:

- 1. This shows the classic limitation to digital encoding. Increase in distortion as volume intensity decreases is an inherent characteristic of digital systems. In contrast, in analog systems, a decrease in distortion often results as volume intensity decreases.
- 2. Head room is non-existent. A digital system simply clips at levels above 100% or 0 decibel output. There are not and cannot be any large instantaneous peaks. Distortion rises rapidly above 100% output just like any other system that clips.

3. Claims for digital systems of 90 decibels or more of dynamic range cannot be compared directly to measurements of analog systems. Below –84 dB a 14 bit digital system contains *no* desired program signal. An analog system with an 84 dB signal to noise ratio can be described as having an 84 dB dynamic range, but there is still program signal below the noise level. This signal is detectable. In many cases the so-called "cocktail party" effect allows our ears to hear the program well below the noise level. This cannot happen with digital systems. A 14 bit digital system is limited to 84.3 dB; a 16 bit system is limited to



96.3 dB. There cannot be program signal beyond these limits. Analog programs are not so limited. They are only limited by the system noise floor.

Now this is not to say that digital encoding is not worthwhile. Rather it points up the reality of life. Sixty decibels of low distortion volume change range in reproduced music is probably more volume range change than any of us have ever heard from a live orchestra.

That digital records are quieter than analog records at the present time is probably true. But that digital recordings are superior in every way is probably not true. Is McIntosh equipment "Digital ready"? Yes! Yes! Yes! We have been ready for digital for decades!

But McIntosh prefers to give you a factual, realistic picture than to suggest the existence of a claim that is not scientifically sound. In the course of our 34 years of manufacturing in the sound reproduction field we have seen people led around by many ingenious pieces of verbal symbology. Usually these symbols are sound if applied correctly. It is the extension or extrapolation of the meaning of symbols that is usually indefensible.



MR 75, FM/AM tuner; MR 80, digital FM tuner; MA 6200, 100 watt per channel integrated amplifier; MC 2255, 250 watt per channel power amplifier

POWER AMPLIFIERS



MC 2150 150 watts per channel



MC 2155 150 watts per channel



MC 2250 250 watts per channel



MC 2255 250 watts per channel



MC 2500 500 watts per channel

"McIntosh . . . has earned an impressive reputation for their continued support of their products, their exceptionally conservative design and specifications, and generally outstanding quality. The MC 2255, the first McIntosh product we have reviewed in many years, is a perfect example of the continuation of those policies.

-Stereo Review

PREAMPLIFIERS



C 29 stereo preamplifier



C 33 stereo preamplifier

"The editorial mind is not entirely unboggled, even after weeks of familiarity, by the capabilities of the C 33. It is unique, fascinating, and sonically rewarding. And it is practical: There's not a single feature on it that hasn't been thought through in terms of real utility. (Would that we could say that about more products these days.)"

-High Fidelity

TUNERS



MR 75 AM-FM tuner



MR 78 FM tuner



MR 80 digital FM tuner

"We had the feeling that the late Major Armstrong, too, would have smiled if he could have heard FM the way we heard it over the Mac MR 78."

-Electronic Laboratory

TUNER/PREAMPLIFIER



MX 117 AM-FM tuner-preamplifier

"... this combination, on a single chassis, makes a great deal of sense; so much so, in fact, that I have always wondered why most other manfacturers have not offered this type of component. After all, it permits the user to choose any power amplifier he or she requires, allows for the incorporation of two turntables as well as two tape decks, and offers the versatility of a separate preamp control unit while at the same time incorporating a top performing stereo FM/AM tuner."

-Audio

COMPACT COMPONENTS



MR 500 digital FM tuner



MC 502 75 watts per channel



stereo preamplifier

"The intangible qualities of durability, care in assembly, and the almost custom craftsmanship distinguishing all McIntosh products are present

-Audio



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