THE HOME MUSIC STORE

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## DIGITAL MUSIC COMPANY

The Home Music Store system comprises an all digital ultra-high speed satellite based audio distribution network, including an addressable in-home decoder.

## SYSTEM DESCRIPTION

The DMC system consists of centralized studio facilities where up to sixteen (16) simultaneous audio and data signals are digitally encoded and multiplexed into single 13.95 MBPS data stream, then transmitted via a standard satellite "up link" facility. Two 800KBPS channels are required for stereo program material, one for monaural (news, index and promotion, etc.).

The broadcast will be received by CATV operators via the shared use of existing earth station facilities or, where necessary, by installing low-cost receive-only earth stations. No additional investment is required at the cable head end.

After exiting the down converter at the cable head, the signal will be transmitted over the cable as a discrete TV channel within the standard 6 MHZ bandwidth.

Each subscriber will be equipped with a low-cost (\$100) decoder that will be inserted between the cable entrance and the standard CATV converter. The decoder will contain a key pad and numerical display for selecting the desired DMC channel. Decoder output will consist of low-level (A & B) audio channels. System signal-to-noise

ratio will be ≥ 90 DB with a usable dynamic range ≥ 96 DB. Harmonic distortion will not exceed 005% at peak output.

In addition to the basic digital RF conversion function, the decoder will also have the capability to provide additional control and display features:

- 1. All channels can be disabled for cancellation or for non-payment.
- 2. Selected channels can be enabled or disabled for receipt of "premium" program material. This feature will allow the user to subscribe to the basic "Music Store" service for a minimum monthly fee and, by calling a toll-free number, to record new albums and releases at a cost that is 40-60% less than comparable retail prices.
- A contact closure will be provided whereby an external recording device can be activated.
- 4. With an optional "teletext" decoder, the data channels may be selectively displayed on the subscriber's TV set, enabling him to preview DMC's upcoming selections and features. Capacity (150+pages per second) is sufficient to provide a wide range of newsworthy, educational and informative material.

## DMC SECURITY

1) All transmissions are digital, encrypted, and very fast. (Approximately 15 million bits of information per second, a data rate far in excess of that manageable by most computers).

- 2) The decryption algorithums in the decoder ("black box") will use both public and private "keys" as well as a proprietary micro-processor instruction set, i.e., even if the box is duplicated, it can't be used without registering it with DMC.
- 3) Any decoder can be completely and permanently disabled upon command from headquarters.
- 4) All selections transmitted for purchase will contain, inaudibly embedded in the music, the serial number of the individual decoder from which the music is transcribed. Appropriate law enforcement agencies will be given access to the equipment necessary to identify these numbers. Even once identified, the numbers cannot be removed without virtually destroying the recording.

