Circuit description for SLV-M10HF (1/2)

TV Recording ;

UHF/VHF signal from the antenna is fed to BTF-MA401 (Antenna SW/ RF modulator/TUNER) on MA-335 board, and converted to VIF and SIF , then detected to video and audio signals in BTF-MA401.
The video signal is processed in IC201 on MA-335 board , and amplified in IC260 on MA-335 board , then fed to rotary-video head for recording.
The audio signal , on the other hand , is processed in IC360 on MA-335 board , and amplified in IC340 on MA-335 board , then fed to rotary-audio head for recording.

Video / Audio Signal Recording ;

The video signal supplied to the video-in terminal is fed to IC201 on MA-335 board for signal processing and recording.
The audio signal supplied to the audio-in terminal is fed to IC360 on MA-335 board for signal processing and recording.

Playback ;

The recording signal picked by the rotary-video head is amplified in IC260 on MA-335 board and processed in IC201 on MA-335 board , then fed to video-out terminal for monitor and BTF-MA401 for modulation.
The recorded signal picked by the rotary-audio head is amplified in IC340 on MA-335 board and processed in IC360 on MA-335 board , then fed to audio-out terminal for monitor and BTF-MA401 for modulation.
The audio and video signals are modulated by BTF-MA401 then fed to UHF/VHF-out terminal.

Circuit description for SLV-M10HF (2/2)

Power Supply and Motor Control ;

The +B line voltage are produced by the power section employing isolation transformer.
Motors are controlled by the system control section consisting of IC101, IC161, etc. on MA-335 board.

Smart File ;

The circuits of Smart File are on NL-2 board. All processes of Smart File are controlled by IC003. Smart File data is encoded by IC002. Carrier frequency is 13.56MHz that oscillated by IC002. The encoded data is modulated by IC002, then modulated carrier is transmitted from Smart File antenna. The VCR has two antennas. One antenna (large antenna) works against the Smart File label of outside cassette, and the other (small antenna) works against inside cassette. These antenna do not work at the same time. The small antenna works only in a moment when the cassette is put in or put out the VCR, and the large antenna works the other time. The Smart File label is passive, it does not have a battery. It get power by rectifying the receiving carrier, and it write the data to memory.
The VCR get the data from Smart File label by changing amplitude caused by changing impedance of Smart File label. The data is detected by IC001, and decoded by IC002. The micro-processor read the decoded data, and display the information of cassette.