CIRCUIT DESCRIPTION

This device is combined a DVD player with a Video cassette recorder and operates with an AC commercial power supply.(AC120V, 60Hz)
This device includes TV interface Device, Television Broadcast receiver, and Digital device of product category defined by FCC.

The external connectors are equipped with Front Audio (L/R)/Video Input, RF input/Output, Rear Audio(L/R) /Video Output, Component Output, S-VHS Output, Coaxial Digital Audio Output, Optical Digital Audio Output and DVD Audio Output L/R.

The circuit is composed by Power Supply Block, VCR Block, and DVD Block, if divided roughly. The explanation is as follows and the details are referred to Block Diagram.

Power Supply Block:
Use the switching regulator circuit and provide the power supply to each circuit.

VCR Block:
The circuit of this block is composed by Tuner/IF/Modulator, Luminance and Chrominance/Audio/CCD/Head Amp, System/Timer/Servo, HIFI Demodulator, Operation / Display, Motor Drive and so on.
RF Modulator output is output in US 3ch or 4ch and Emission frequency is as
Follows:

Emission Frequency; US 3ch Video carrier: 61.25MHz
Audio carrier: 65.75MHz
US 4ch Video carrier: 67.25MHz
Audio carrier: 71.75MHz

The oscillating frequencies that is used this block are the follows:

10MHz----VCR System Control IC Clock
3.579545MHz---Luminance and Chrominance IC Clock

DVD Block:
The block part of DVD comprises of a read control device of a disc, a signal processing device, a decoder part and a control unit. Each device is in charge of serial processing from reading to indication of a signal.
A reading device of a disc comprises of a motor part spinning a disc and a

laser part reading data from the disk.

A signal processing device converts a laser pulse read by a disc to the digital data which a decoder can process

The decoder part develop compressed digital data and output in a personal computer , television, a stereo system and etc. as a picture , a voice and other data.

A control unit controls the operation from a wireless remote controller and front panel and the order input form a software and controls a decoder and other mechanism

The oscillating frequencies that is used this block are the follows:

135MHz--- SD-RAM Clock (RAMCLK)
27MHz--- MPEG Master Clock (GCLK)
18.4327MHz--- Audio Master Clock (AMCLK)
3.072MHz---Audio bit Clock (ABCLK)
48kHz---Audio L/R Clock (LRCLK)