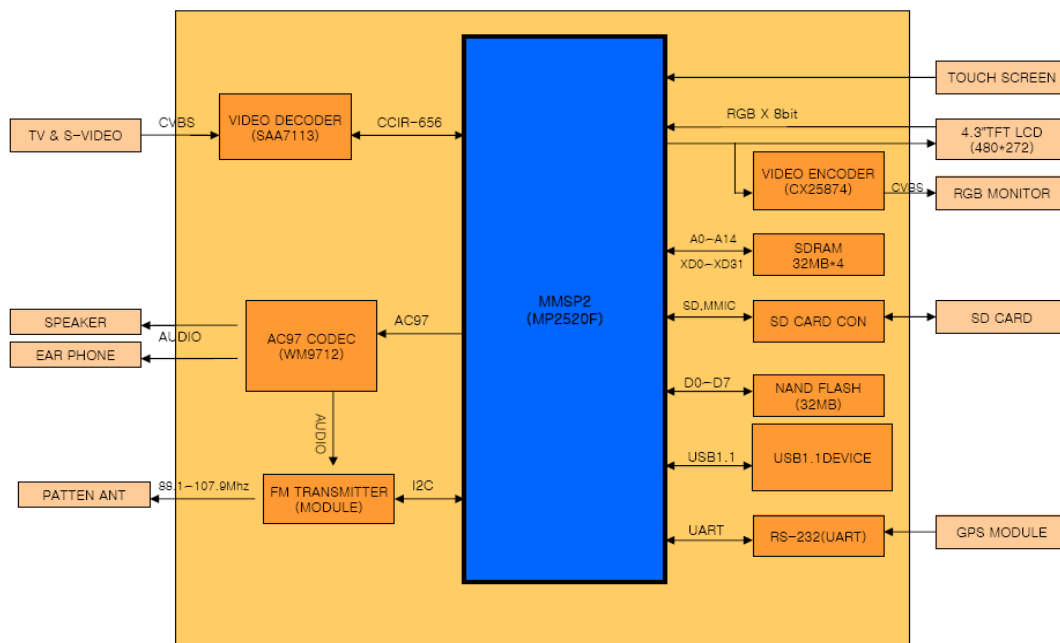## Operation Description

Video input:

CCIR-656 format is the international standard of video signal and takes input from the main CPU(MP2520F). When CVBS video signal comes from the outside, the video decoder(SAA7113) IC converts it into CCIR-656 format and transfers it to the CPU. Then the CPU receives the signal and outputs it into LCD.

AC97

AC97 signal is the international standard of audio signal. It converts audio in an MP3 file or a video file into AC97 format in CPU and outputs it into WM9712 IC. AC97 format of a digital signal is inputted into WM9712, and WM9712 converts it into audio of an analogue signal, and outputs it into speaker, earphone etc.

Video output

For LCD, digital LCD is adopted whose resolution is 480(RGB)X272. CPU outputs video signal of R8bit, G8bit and B8bit, and LCD receives the signal and outputs video. Also, the video encoder(CX25874)IC receives the same video signal and converts it into CVBS signal of an analogue signal to make it viewed in general monitor.

SDRAM

SDRAM is memory to execute the program in the CPU, making the program loaded onto the memory and flexibly run. Data line is read or written in 32 bits.

SD CARD

As a storage medium, SD CARD saves an MP3 file or a video file to enable these to be played in the set.

NAND FLASH

NAND FLASH is a storage medium containing all programs implemented in the set and delivered in a stored condition. CPU reads the program in FLASH to execute the program.

USB 1.1

USB 1.1 is international standard and supports the USB 1.1 DEVICE function in the set.
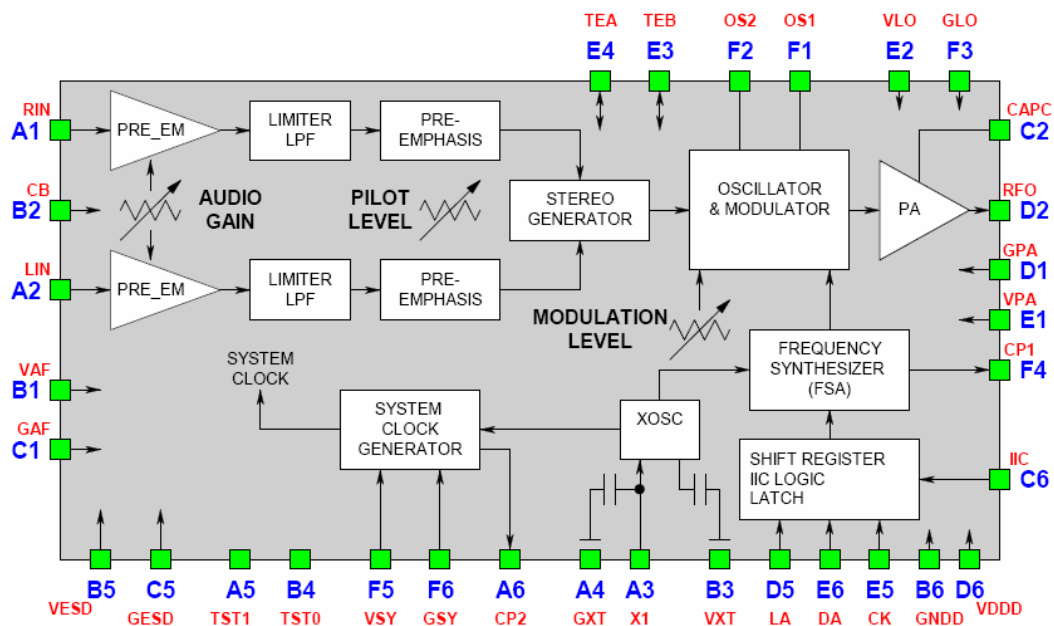
RS232

The GPS module conducts 232 communication with CPU. GPS delivers satellite information to CPU through 232 communication, and CPU receives the satellite information and indicates the current position in the screen.

*FM Transmitter (Main chip)

The NS73 is a FM stereo transmitter IC designed for FM transmitter embedded into battery operated portable devices.

Block Diagram of NS73

The EUT is composite device, main function is

PMP functions; MP3 play, File up and down mode, Navigation, FM transmitter

A pattern antenna is used on PCB board for transmitting.

FM transmitter antenna

FM transmitter module

FM transmitter antenna