

# Circuit Description

Processor Prima is Central Processing Unit, communicating with the following modules:

1. Prima Communicates with MCU through serial port. .
2. Prima encodes panel Keys though A/D signal checking and completes unit operations and system functions
3. Though SPI protocol operates GPS front end .Prima processes GPS baseband and reads MAP data .realizes unit navigation functions.
4. Though serial port communicates with Bluetooth module.
5. Processing flash memory and DDR ,complete the whole system operation.
6. Operates USB and SD Card ,reads or writes MAP, audio/video date and encodes them, outputs the signals to AMP and TFT driver.

MCU is the slave component ,completes the following control

1. MCU encodes steering control keys through A/D signal checking.
2. Though I2C protocol operates audio/video source switching .
3. MCU checks vehicle ACC , power ,brake ,reverse signals, completing power management .

CPU is connect DDR DRAM and NandFlash via external date bus and external address bus

Audio Output: CPU connects audio D/A chip. The output simulate audio signal is magnified and then drive speaker or stereo earphone.

Bluetooth: the aviator can be recognized as a Bluetooth after the navigator starts Bluetooth function and is matched with Bluetooth mobile phone and then the user can make a call through navigator. CPU communicates with Bluetooth mode through UART. CPU will turn off the sound from navigator itself to avoid phone calling interference when the mobile phone makes a call through navigator.

SD card: SD card connector includes card power (3.3V), plug test, protection test, card data (4 digitals), clock and order.

Antenna is printed in the PCB