

# Operation Description

VM9224BT is a DVD/USB with Bluetooth car video product. The main work principle can divided into five parts: the control part, the DVD/USB decoder part, the power part, the Bluetooth part, the audio/video part.

The control part takes charge in the control of the product by using ST7232 as its main control unit. The control function including: Keys AD sampling, power management, bus mastering, Tuner controlling and so on.

The DVD/USB decoder part decode the audio/video signals from DVD MECH and USB. Also it communicate with TFT driver IC(TW8816) using IIC mode. Otherwise it control the Bluetooth part(THSM5.2) and the audio/video signals.

The power part supply the power for the product. It transform the 12V supplied by the car battery to different voltages like 9V, 5V, 3.3V, 1.8V and so on.

All of the audio signals is managed by the audio processor IC(TDA7419), then these audio signals will be sended to the power IC(TDA7388) , finally output to the car speakers.

The Bluetooth part used THSM5.2. The main specification as below:

Operation Frequency: 2402-2480MHz

Modulation: GFSK, DQPSK, 8DPSK

Antenna Type: External Antenna

Antenna gain: 4dBi

Operate voltage: 3.3V(2.7~3.6V) , 1.8V(1.7~1.9).