

Circuit Description

1) power supply

Transform DC 5V Power supply into 3.3V and 1.8V through the U7 and U8 to supply power for the machine;

At the same time, Transforming DC 5V power supply in to 3.3 V to supply power for wifi module

2) Minimal System

U1 (W90N745) is control chip of whole system ; U2 is SDRAM; U3 is Nor Flash , mainly responsible for the data storage, Y1 is 15 MHZ crystal oscillator to supply clock signal for U1

3) VIDEO

U6 is image sensor , transform optical signal into video signal via U6, After DSP decoding process, then U1 carried coding, compression, after that output the compressed video signal through TCP / IP protocol. Y3 is 12MHz crystal oscillator to supply clock signal for DSP..

U4 is the audio codec chip, MIC collected audio signal be processed through the U4 coding, then being compressed by U1, and then output through TCP / IP protocol; at the same time U4 can decode and amplified audio signal, through EARPHONE output to achieve two-way Vaudio communications,

4) Ethernet and WIFI

U10 (IP101) is a network card IC, the data signals be processed through U10, coupling through the network transformer T1, and then through the RJ45 interface ,cable output to achieve video surveillance. Y2 is 25MHz crystal oscillator ,provide clock signal for U10. J10 is WIFI module, the data signals processed through J10, then transmission with wireless way to achieve wireless video surveillance.