

Circuit Description

1) power supply

DC 5V power supply go through U7、U8 convert to 3.3V、1.8 V voltage,to supply the product;
At the same time DC5V power supply go through U11convert to 3.3Vvoltage , to supply the
WIFI module.

2) Minimal System

U1 (W90N745) is the control chip of whole system; U2 is SDRAM, which mainly
responsible for cache of data.; U3is NOR FLASH, which mainly responsible for system files
and data storage; Y1is 15MHz crystal oscillator, provide clock signal to U1。

3) VIDEO

U6 is image sensor, optical signal convert to video signal via U6, after decoded by DSP, then
coded and compressed by U1, after that output the compressed video signal by TCP/IP
protocol。Y3 is 12MHz crystal oscillator, , provide clock signal to DSP 。

4) Audio

U4 is audio frequency CODEC chip, MIC collect the sound signal and disposed by U4
coded, then compressed by U1, after that output through TCP/IP protocol; At the same time ,the U4
can decode and magnify the sound signal , output via EARPHONE to achieve the two-way audio
communication。

4) Ethernet and WIFI

U10 (IP101) is network card IC, data signal disposed by U10 and coupled by network
transformer, then go through the RJ45 port、 output by networkcable to achieve the video
monitoring 。 Y2 is 25MHz crystal oscillator, provide clock signal to U10。

J1 is WIFI module, the data signal after disposed by J10 ,then transmission with wireless way
to achieve wireless video monitoring 。