YAT-ADT101

Air Data Transmission

The YAT-ADT101 is the system which transfer information of aircraft with video signal. The using video signal follow NTSC regulations. And the information data is the standard RS-485 data. Because the YAT-ADT101 has a wide bandwidth, using the 2.4GHz band, the more data can be transferred. If you want to transfer video and lots of data together, The YAT-ADT101 will provide the best solution.

Features

- Using the 2.4GHz band
- Using the standard NTSC
- Transmitting of huge amounts of data in high-speed
- Not required a additional communication channel for data transmission
- Increasing amounts of transmitting data through firm-ware
- Data storage and situation reappearance through video recording
- Serial communication : RS-485
- Power input : DC12V

Applications

- Robotics systems
- Surveillance systems
- Unmanned aerial photographing

Architecture

The transmitting part of the YAT-ADT101 consists of a transmitter and a composite board. And the receiving part of YAT-ADT101 also consists of a receiver and a separation board. The composite board and separation board consist of a micro-controller and video signal processing ICs.

Fig. 1 Transmitting part

Fig. 2 Receiving part

Specification

「YAT-ATA101」

Transmitting Part	
Performance	
Frequency (GHz)	2.4
Transmitting rate (byte/sec)	7,740 (programmable)
Output power (dBm)	10
Max. range (m)	100
Operating Temperature (℃)	-20 ~ 50
Physical	
PCB size (mm)	70 × 60 × 1.5 [W × H × D]
PCB weight (g)	30
Antenna interface	SMA-J
Electrical	
Supply voltage (Vdc)	12
Consumption current (mA)	150 [@12Vdc]
Impedance (Ω)	50
Input data interface	RS-485
Input video signal standard	NTSC

Receiving Part	
Performance	
Frequency (GHz)	2.4
Receive sensitivity (dBm)	-81
Operating Temperature (℃)	-20 ~ 50
Physical	
PCB Size(mm)	93 × 40 × 1.5 [W × H × D]
PCB Weight(g)	20
Antenna interface	SMA-J
Electrical	
Supply voltage (Vdc)	12
Consumption current (mA)	70 [@9Vdc]
Impedance (Ω)	50
Output data Interface	USB 2.0
Output video signal standard	NTSC

Block Diagram

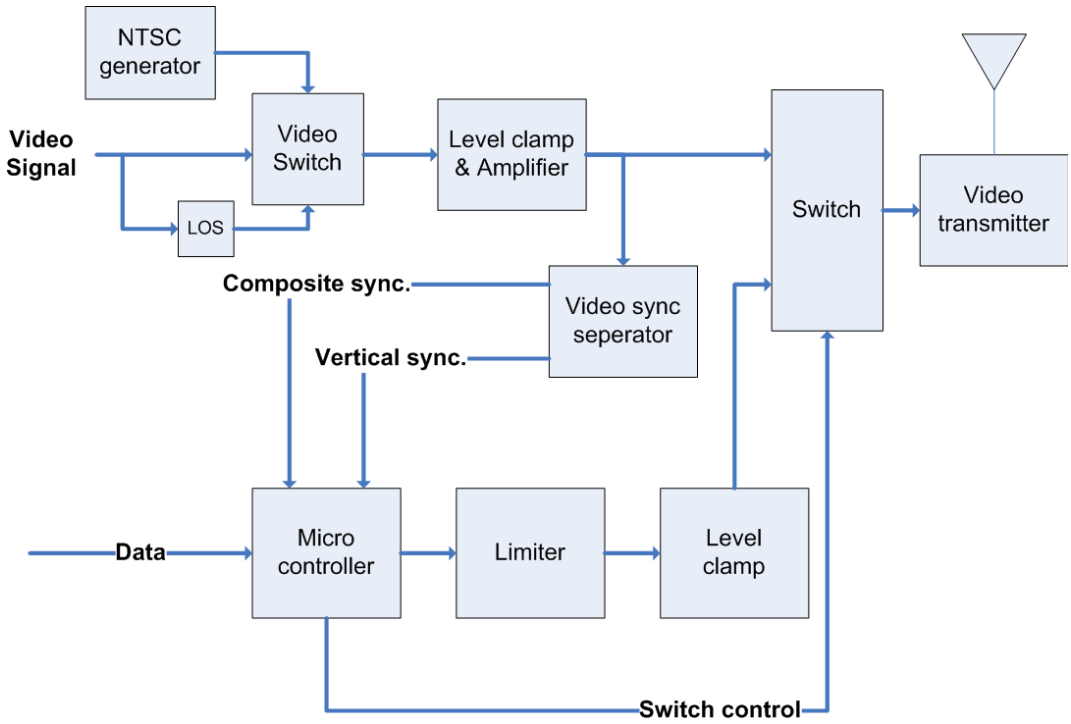

Fig. 3 Block diagram of transmitting part

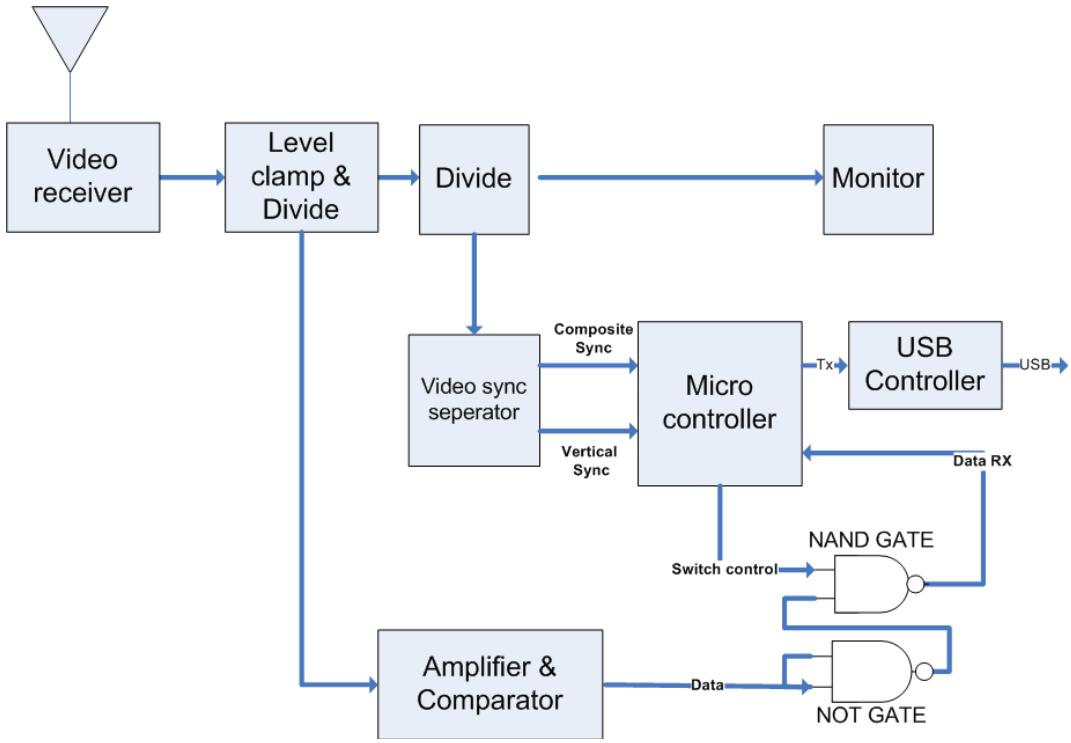

Fig. 4 Block diagram of receiving part