PC-MAX Circuit Theory

PC-MAX needs external working voltage DC 12V 1A. Internal power supply is as fig. 2 below. PC-MAX contains two parts, PC-MAX main unit and adaptor that connects with PC (in wireless communication). When using cable, PC-MAX is connected with PC through USB cable. PC-MAX communicates with vehicle to diagnose by the software installed in PC.

Communication with PC-MAX main unit have two ways, wired and wireless. When PC-MAX main unit detects the wired connection, it will use wired communication. Wired communication will use USB connection like fig. 5. When wired communication is disconnected, main unit will switch to wireless communication automatically. Frequency for wireless communication is RF 2.4GHz, using Bluetooth communication protocol for data communication as fig. 6. MOD 1 in fig. 6 is Bluetooth communication module. Both parts of Bluetooth could receive and transfer information.

Working relationship inside PC-MAX main unit is shown in fig. 1. When receiving instruction from PC, MCU will distribute to PWM_VPW, CAN, K_Line_Block, RX_Select, Voltage_Control and Protection modules following the instruction as shown in fig. 1. After relative processing, it will communicate with vehicle through Car-Interface module.

Fig. 1 (modules relationship)

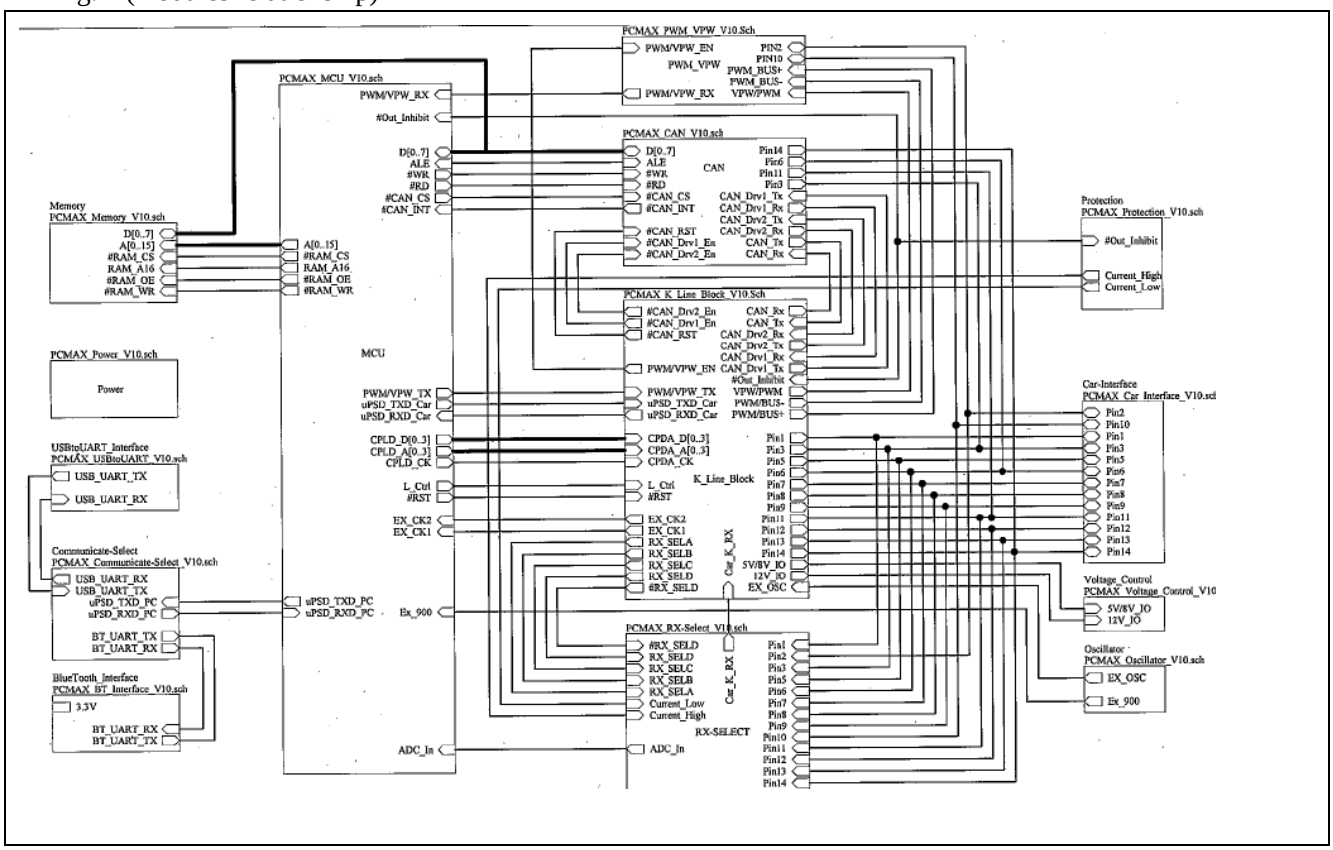

Fig. 2 (power supply)

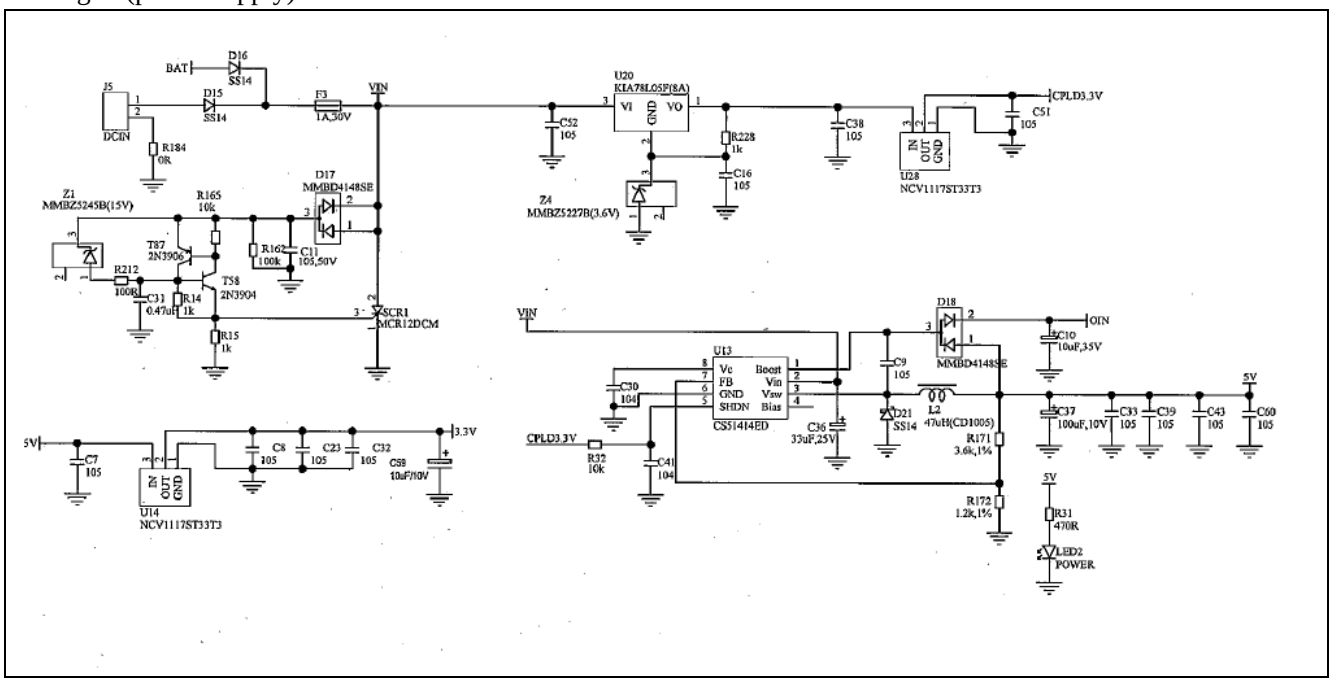

Fig. 3 (processor)

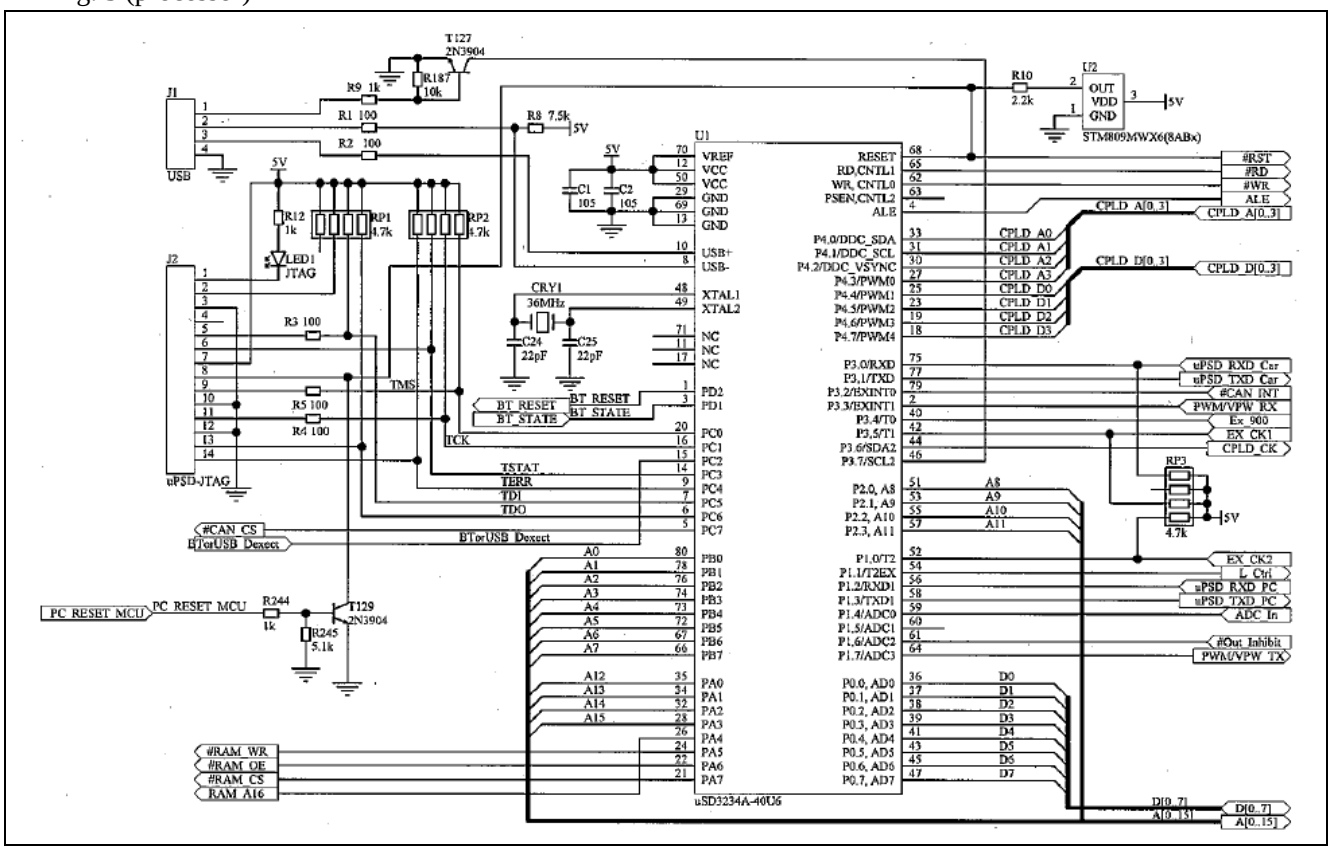

Fig. 4 （memory）

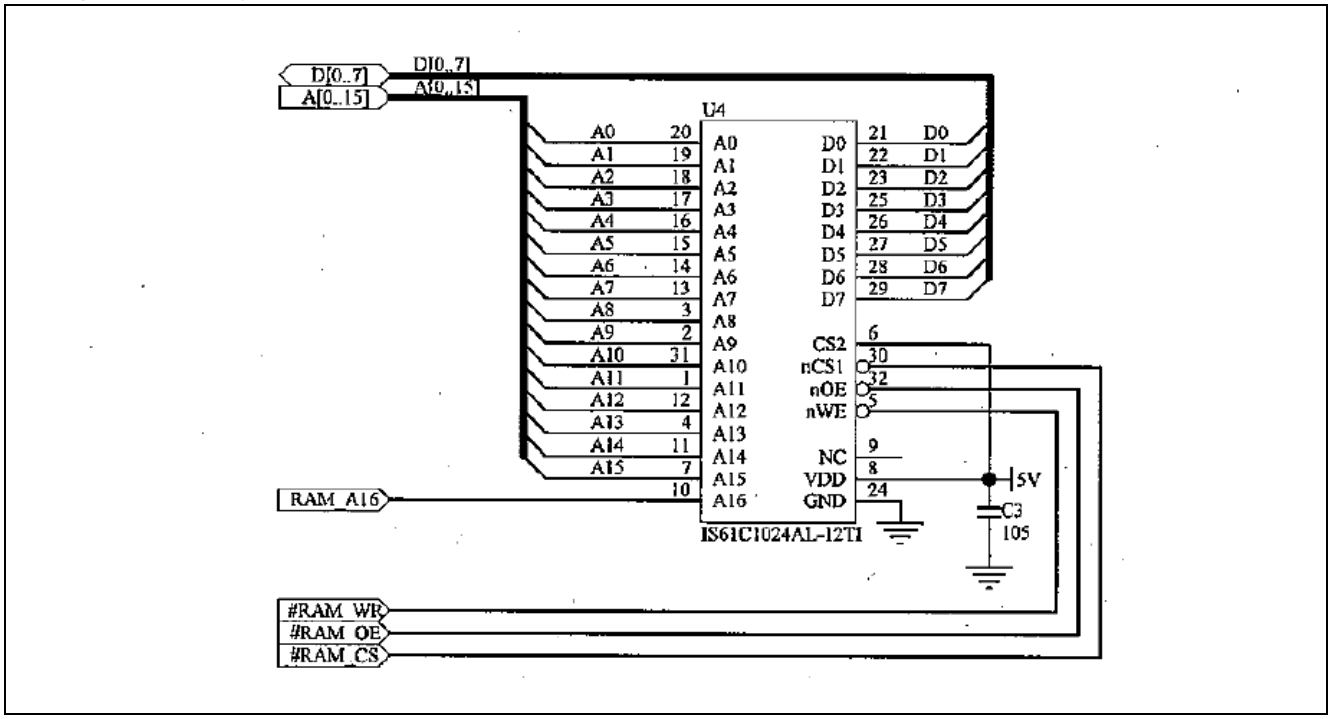

Fig. 5 （USB transformed to UART wired connection）

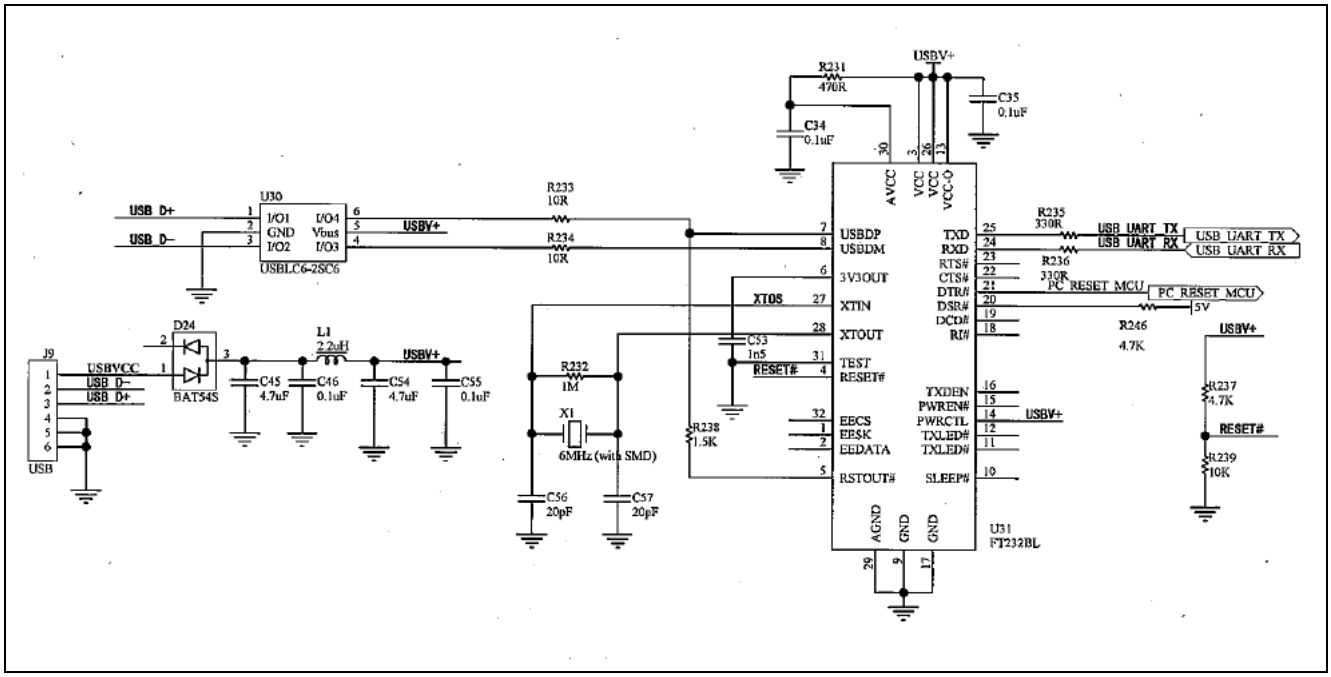

Fig. 6 （Bluetooth component, wireless connection）

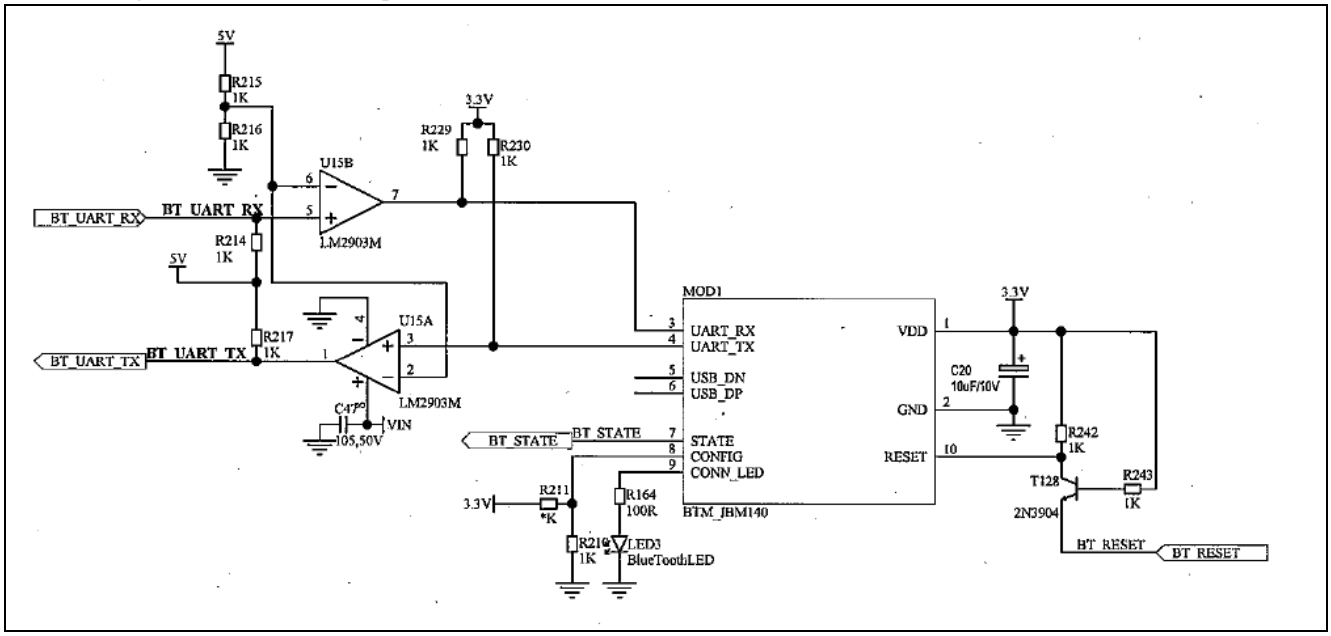

Fig. 7 (connector that connects with vehicle)