



idatalink Maestro RR Teardown

Quick look inside the guts of the Maestro RR "brain box" which is required to install new radios into modern day vehicles with computer control.

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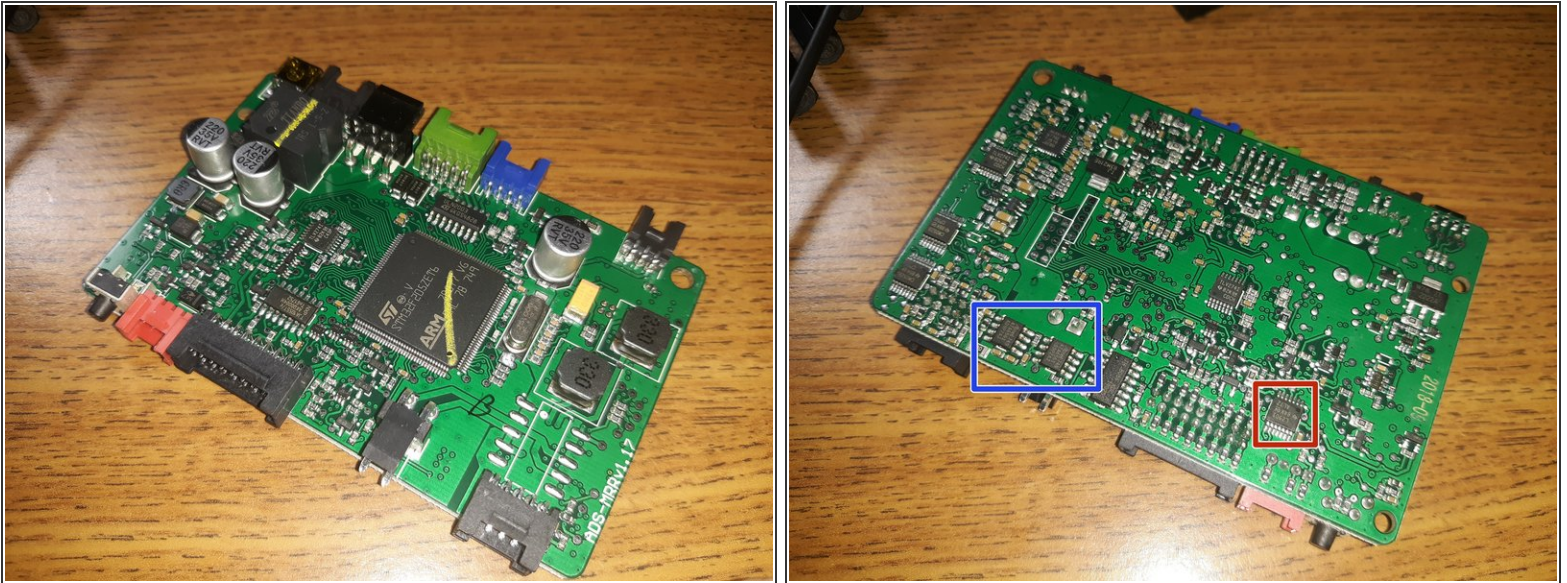


Step 1 — idatalink Maestro RR Teardown



- The case easily comes apart as it just snaps together with no screws

Step 2



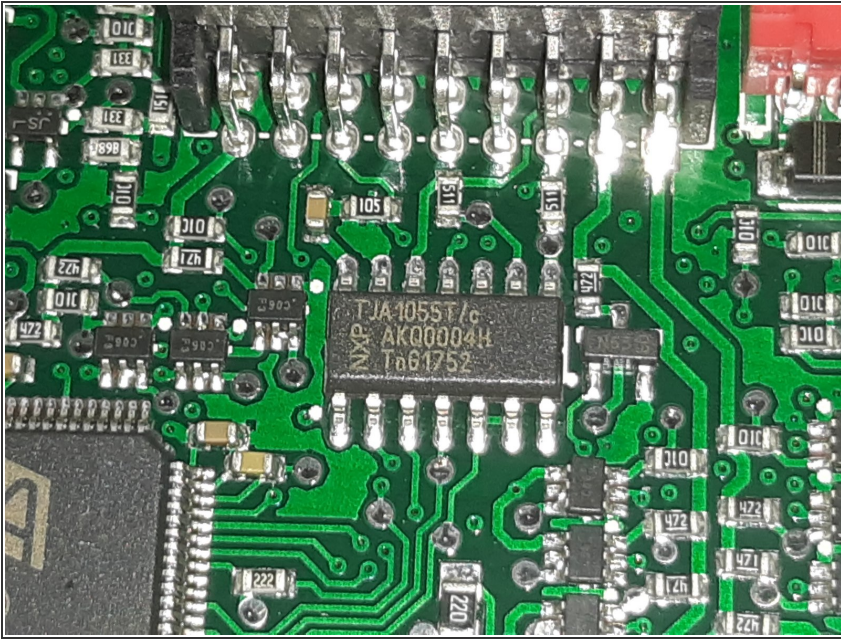
- Once the case is apart the PCB just lifts right out of its plastic tray
- Its kind of hard to see but on the back of the PCB there's a Texas Instruments LM2901 Quad Differential Comparator
- Here we see a pair of Atmel ATA6561 CAN Interface IC's. these are what communicate with the vehicles CAN bus.

Step 3



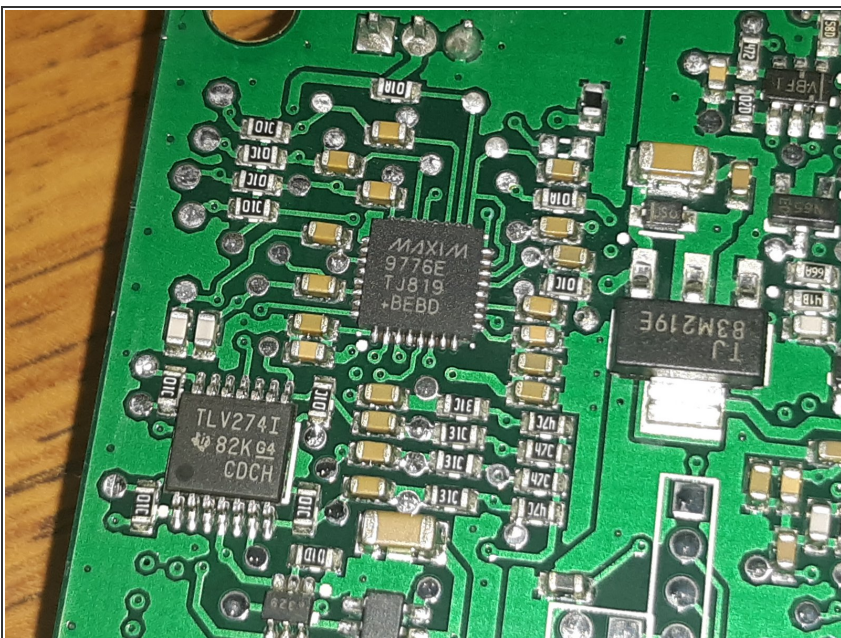
- The heart of the RR is the STMicro STM32F205ZET6
- This micro uses 32bit ARM Cortex M3 cores running at 120MHz
- Above the STM32 theres a jelly bean STMicro ULN2003 Darlington Transistor array

Step 4



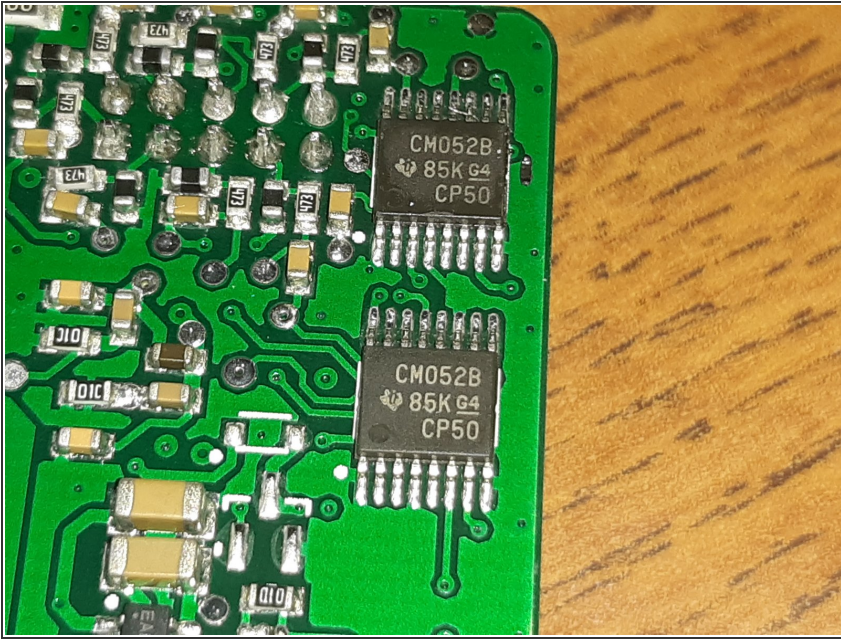
- Looking around at the small amount of other chips in the board here we see an NXP TJA1055T/c CAN Controller. this is going to communicate with the digital CAN bus in new vehicles

Step 5



- In the middle we have a MAXIM 9776E that i cant find any info on
- To the left theres a Texas Instruments TLV274I 3 MHz 4 channel rail to rail op amp
- EDIT: After realizing i had a typo in the name, calling it an 9779E instread of the 9776E, its a 1.5W audio amp. this is used for vehicles where when using the RR you keep the original warning and door chimes but connecting a small speaker somewhere, usually shoved into the dash board.

Step 6



- And the last image we have a pair of Texas Instruments CM052B which i also can't find even a Mouser listing for. but apparently its actually a CD4052 4 channel Multiplexer

To reassemble your device, follow these instructions in reverse order.