

Automotive Electronics Group

Re: Certification for TRW '01 RS Receiver Model No.: GQ43VT25R FCC ID: GQ43VT25R CANADA:

PRINCIPLES OF CIRCUIT OPERATION

The receiver portion of the remote lock control system is incorporated into the wiring system of an automobile and is powered by the vehicle's 12V battery.

The receiver is super-hetordyne in design and is tuned to 315MHz. It has an onboard PCB trace antenna. The incoming RF signal is filtered, amplified and mixed down to the intermediate frequency, amplified again, demodulated and then the data is fed into the microprocessor. The microprocessor reads the received data and decides if it enters operation mode or programming mode. If a valid operation code is received, it will activate the appropriate outputs to the BCM after verifying them with the 32 bits of encrypted data stored in EEPROM.



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BLOCK DIAGRAM

The receiver circuit is comprised of a PCB antenna, RF amplifier, mixer, local oscillator, data filter, EEPROM and microprocessor.

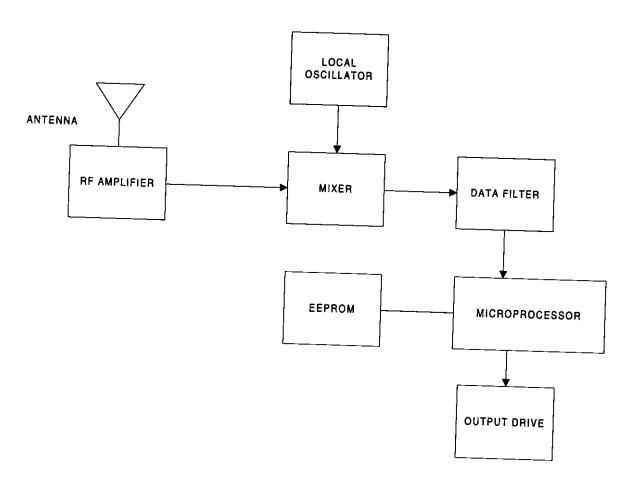


Figure 1. Receiver Block Diagram