



**RELM Wireless Corp. – BK Radio**  
7100 Technology Dr.  
W. Melbourne, FL 32904

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Federal Communications Commission  
Authorization and Evaluation Division

### **K95KNGP400 Class II Permissive Change Request – Circuit Change Description**

Applicant: RELM Wireless Corporation  
FCC ID: K95KNGP400

The following circuit change has been made to FCC ID K95KNGP400 under the Class II Permissive Change guideline for this FCC ID to have P25 Phase II Operation incorporated; thus, requiring Emissions Designator 8K10F1W to be added.

Some changes to the transmitter power control circuitry are required in order to support the more accurate power ramping required for P25 Phase II operation (emissions designator 8K10F1W). These changes consist of: the addition of a 12-bit DAC to set power, the addition of a comparator to control the existing RX/TX LO switch, and the addition of a secondary control loop to maintain a resistor divider determined offset on the driver and final gate voltages during the off slot. Figure 1 below shows a block diagram of the transmitter as it was when the K95KNGP400 type acceptance was granted and Figure 2 shows a block diagram of the transmitter with the changes required to support emissions designator 8K10F1W. No changes have been made to the synthesizer, VCO, pre-driver stage, PA module, antenna switch, or harmonic filter. None of the changes will affect maximum output power.

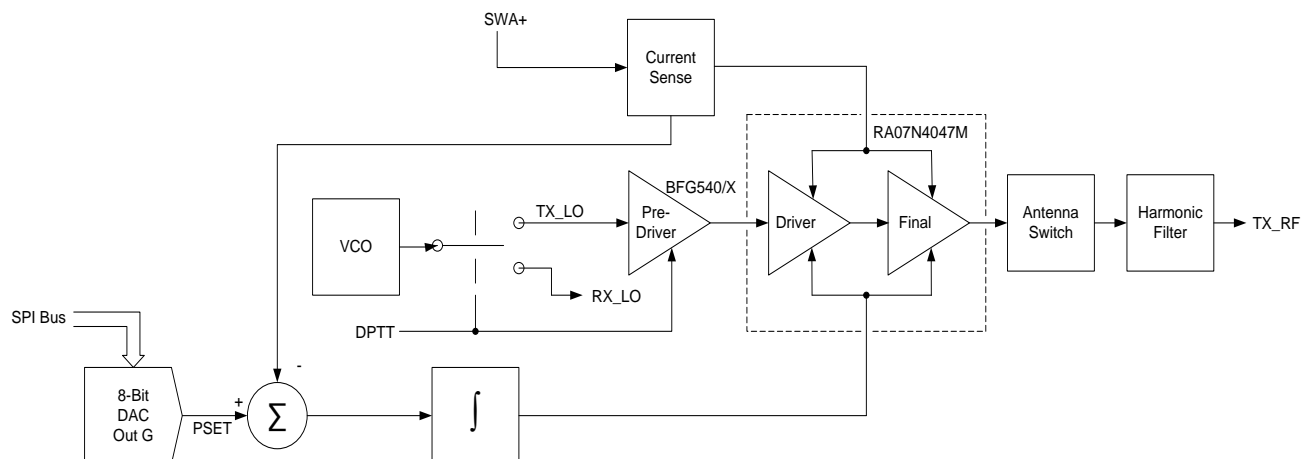


Figure 1 – Transmitter at Type Acceptance Grant

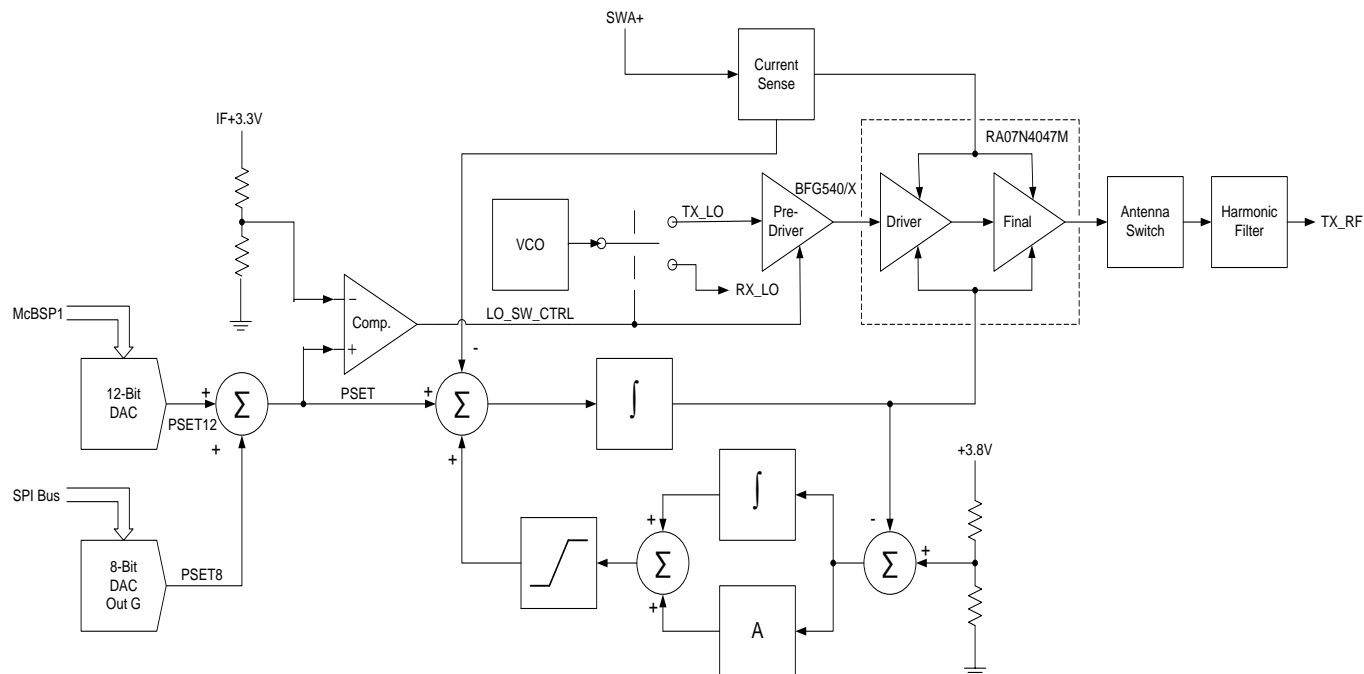


Figure 2 – Transmitter with Changes to Support Emissions Designator 8K10F1W

Sincerely,

*Clinton McClanahan*  
Clinton McClanahan

c/o

*Brian W. Jones*  
Brian W. Jones