**TPA and buck modulator notes**

The buck modulator has the capability to deactivate its operation with the SHDN pin header. This feature has not been implemented yet, in either the firmware or hardware, as it was not deemed necessary.

Many component values in this design are specific to this TPA CMCD tuning (8.35MHz with a 1:4 balun). If the CMCD circuit is altered, changes to the buck modulator may also be necessary to preserve stability.

The LM5113 gate driver has shown to be useful at RF frequencies up to 20MHz. If higher frequency gate drive is desired, then it may be necessary to use a different gate drive circuit based on narrowband impedance matching circuits.

The tuning capacitors (C104 and C106) and the tank inductor (L1) for the CMCD were adjusted empirically to give good efficiency at the desired frequency. As a rule of thumb, the characteristic impedance of the resonant tank should be less than or equal to the load impedance looking into the balun.

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