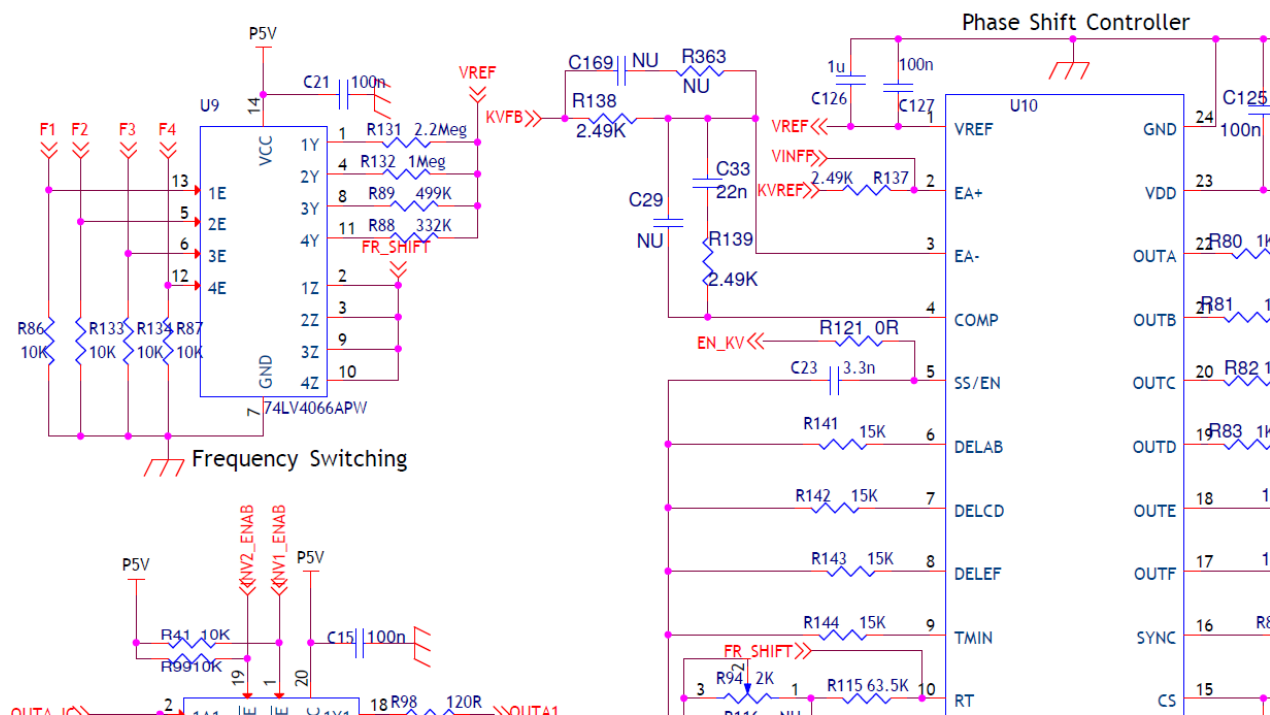


Slave Mode in UCC28950

We have used UCC28950 Controller in an X-Ray Apparatus. The Load to the Power Converter can vary from 10W to ~40 kW. Power Inverter is Series Resonant Converter (With External L and C) with High Reflected Capacitance from High Voltage Transformer, In other words the converter operates in Series-Parallel Mode.

Since the reflected Load vary in a large range, it is quite difficult to operate in only in phase shifting mode. This many days we have Fixed Frequency steps By Connecting Resistor in parallel to R_t as shown below. That is Controller in master mode.



Now we wish to change the frequency in continuously (Say from 90 kHz to 150 kHz Along with phase shift modulation), By Changing the current flowing in R_t . But in Master Mode it is Difficult to change the current since the R_t is connected Vref.

In Slave mode by connecting the R_t to Gnd, Current through R_t can be varied easily configuring opamp in constant current mode.

Is it possible to operate the controller in Slave mode without a master controller? May be by connecting 825k Across SS pin to Gnd or Some Other Way, Please suggest.