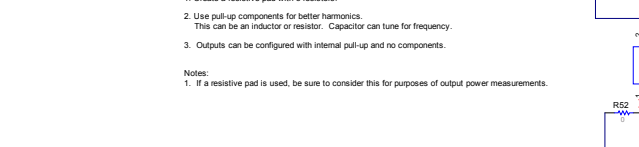
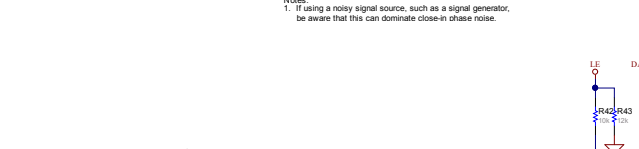
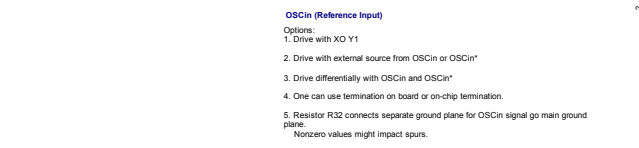
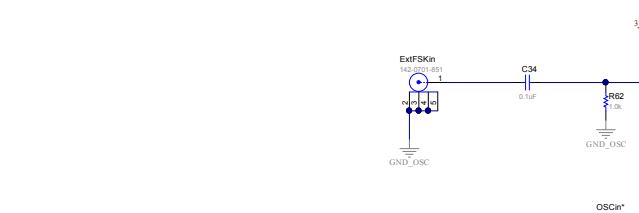


Options:
 1. Operate using the TPS83050 Buck-Boost
 Apply a voltage from 2.5-5V.
 R39, R40 and R40d should not be populated with option 1
 C31, C32 not populated.
 2. Apply a voltage higher than 5V to Vcc5V_SMA.
 Use regulator U4 to get 5V at Vcc5V_TP.
 Use regulator U3 to get 3.3V for Vcc3V_TP.
 R40c, R40d should not be populated with option 2.
 3. Apply 5V to Vcc5V_SMA.
 Connect resistors to get this same voltage at Vcc5V_TP.
 Use regulator U3 to get 3.3V for Vcc3V_TP.
 R40c, R40d should not be populated with option 2.



Notes:
 1. The external loop filter components are highly dependent on the external VCO used.
 2. External VCO is powered by the same supply as the VccCP5V supply.
 3. If not using the external VCO, it is still necessary to supply the pin VccCP5V, although it can also be supplied with 3.3V.

Options:
 1. Use for sensitivity testing
 Set R23 = 18 ohm, R24b = 68 ohm, R23 = 18 ohm
 This forms a 6 dB T-pad.
 2. Use for VCO Output
 Set R25 = 18 ohm, R24 = 18 ohm, R23 = 18 ohm
 This forms a 6 dB T-splitter.

Notes:
 1. R24 and R24b can not be placed at the same time.

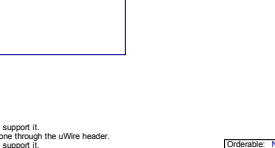
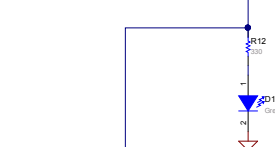
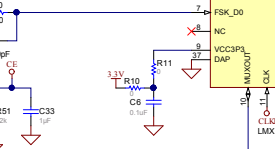
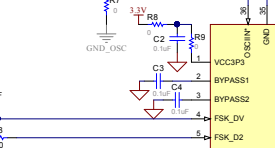
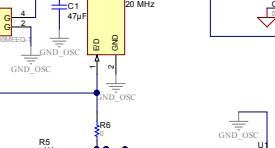
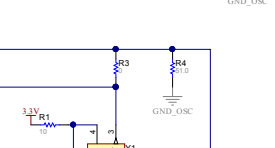
Options:
 1. Use with Multiplier
 - Multiplier = 4x
 - Fpd = 80 MHz
 - Kpd = 1250 uA (= 1 x 1250 uA)
 2. Do Not Use the Multiplier
 - Fpd = 20 MHz
 - Kpd = 5000 uA (= 2 x 2500 uA)

Notes:
 1. With this configuration and components, loop filter has about a 200 kHz loop bandwidth.
 2. Internal Poles are set with external resistors to 600 ohm.

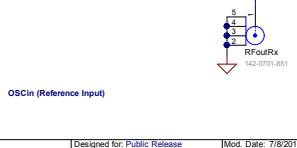
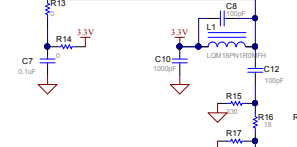
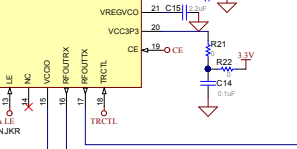
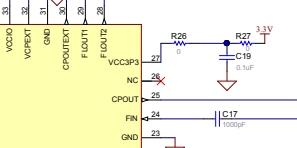
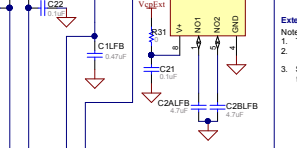
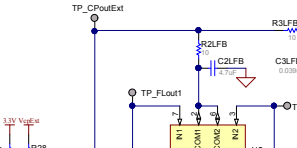
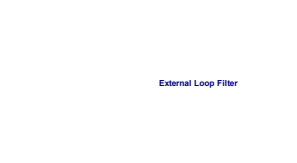
Options:
 1. Create a resistive pad with 3 resistors.
 2. Use pull-up components for better harmonics.
 This can be an inductor or resistor. Capacitor can tune for frequency.
 3. Outputs can be configured with internal pull-up and no components.

Notes:
 1. If using a noisy signal source, such as a signal generator, be aware that this can dominate close-in phase noise.

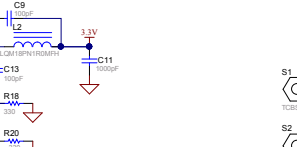
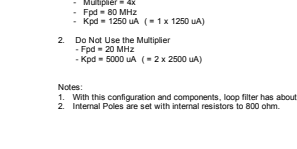
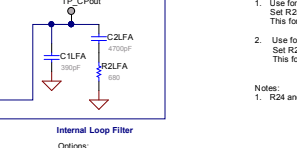
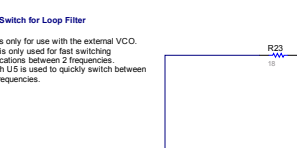
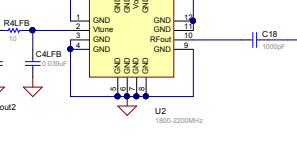
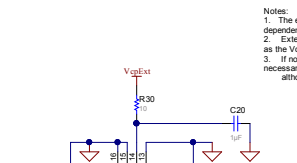
Options:
 1. Voltage dividers divide down 3.3V to 1.8 V.
 2. CE pin can be configured with pull-up resistor.
 3. R53 might be possible to power the board in the future.
 However, the current software for programming might not support it.
 4. The LMX2571 does support readback and this could be done through the uWire header.
 However, the current software for programming might not support it.



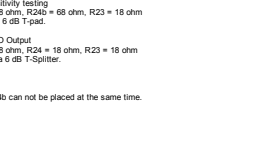
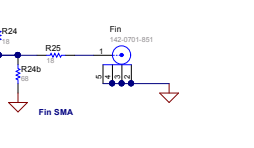
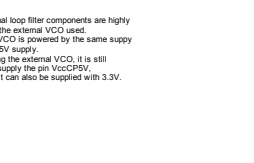
Options:
 1. Create a resistive pad with 3 resistors.
 2. Use pull-up components for better harmonics.
 This can be an inductor or resistor. Capacitor can tune for frequency.
 3. Outputs can be configured with internal pull-up and no components.



Options:
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