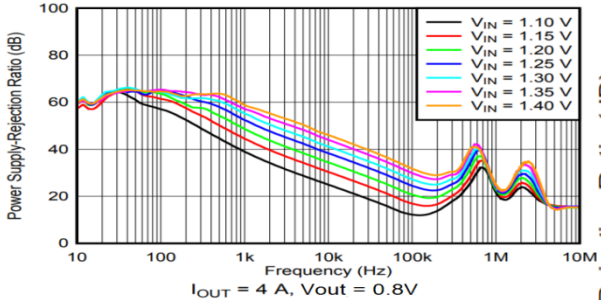
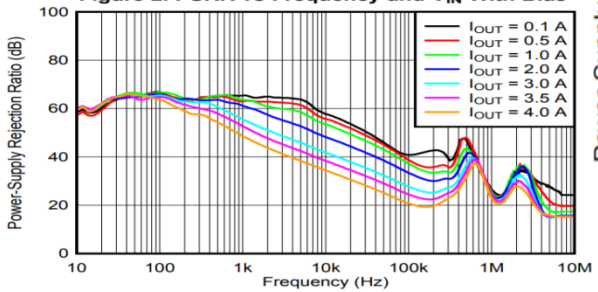
What Conditions Effect PSRR

#1 thing that effects PSRR performance is the Combo of Vin/Iout (Vdo)



I_{OUT} = 4 A, Vout = 0.8V

Figure 2. PSRR vs Frequency and V_{IN} With Bias



V_{IN} = 1.2 V, Vout = 0.8V

Figure 1. PSRR vs Frequency and I_{OUT}

The next thing that effects PSRR is the noise reduction capacitor

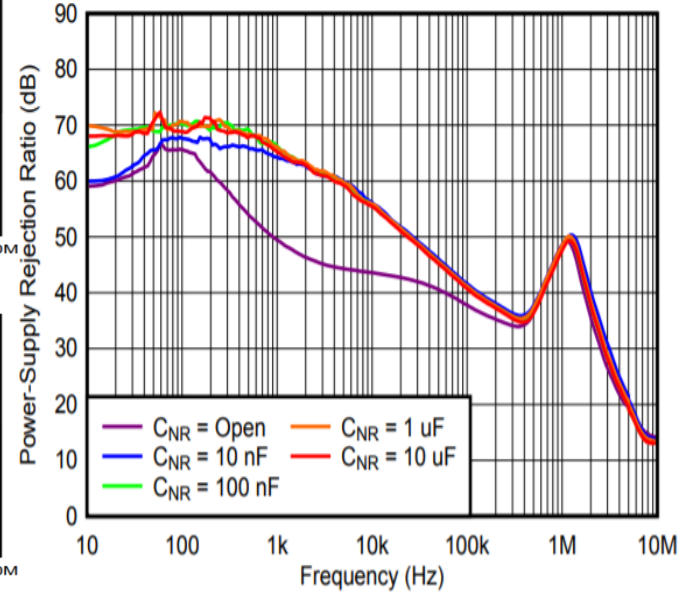


Figure 7. PSRR vs Frequency and $C_{NR/SS}$

And the final thing that effects PSRR is the feedforward capacitor

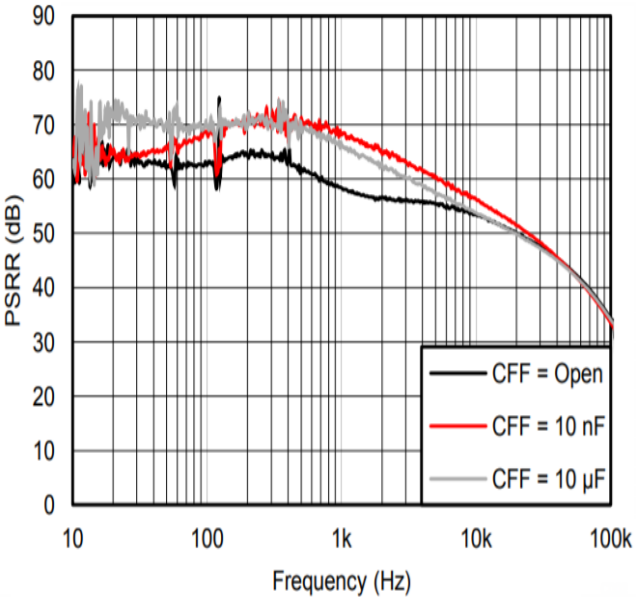


Figure 5. PSRR for Various C_{FF} Values

What Conditions Do Not Effect PSRR

Number one thing that has almost no effect on PSRR is Vbias>min

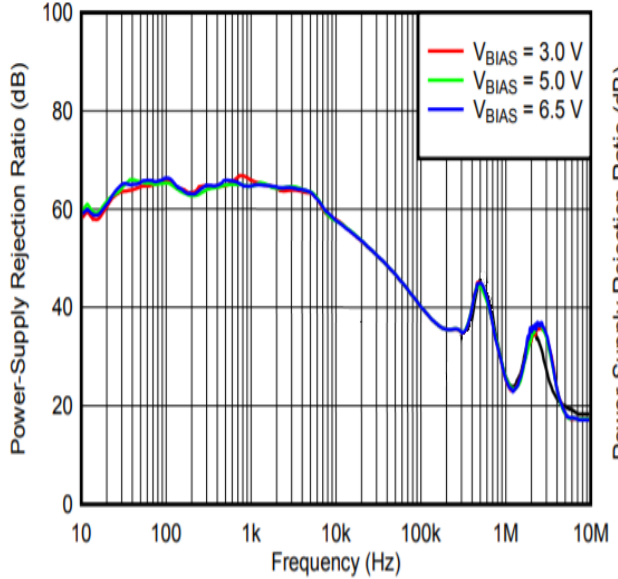


Figure 3. PSRR vs Frequency and V_{BIAS}

The next thing that only has a small effect on PSRR is Vout

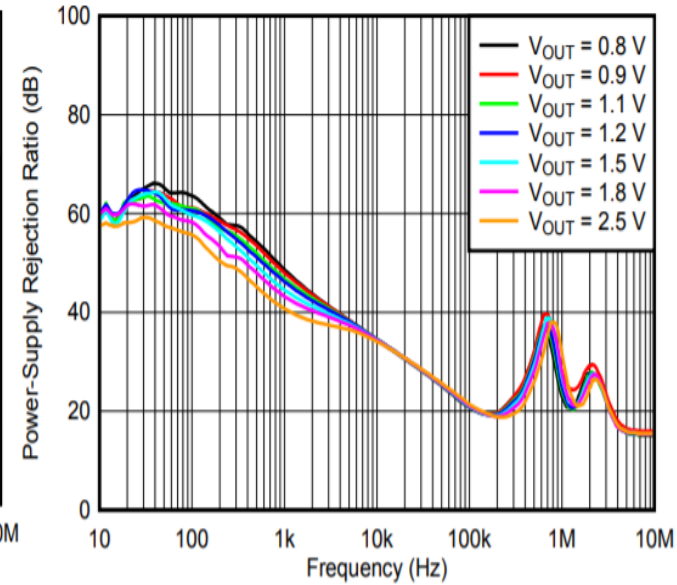


Figure 5. PSRR vs Frequency and V_{OUT} With Bias

And the final thing that has some effect (but only at high freq) is output capacitor

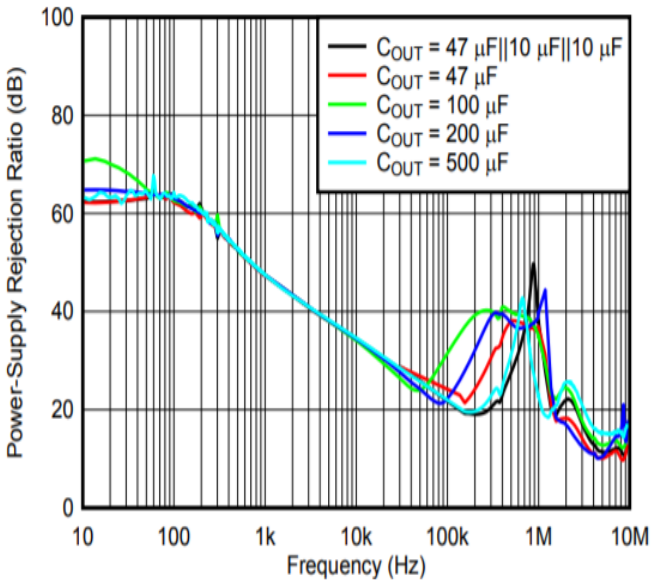


Figure 7. PSRR vs Frequency and C_{OUT}

What Conditions Effect Noise

Number one thing that effects noise performance is the output voltage

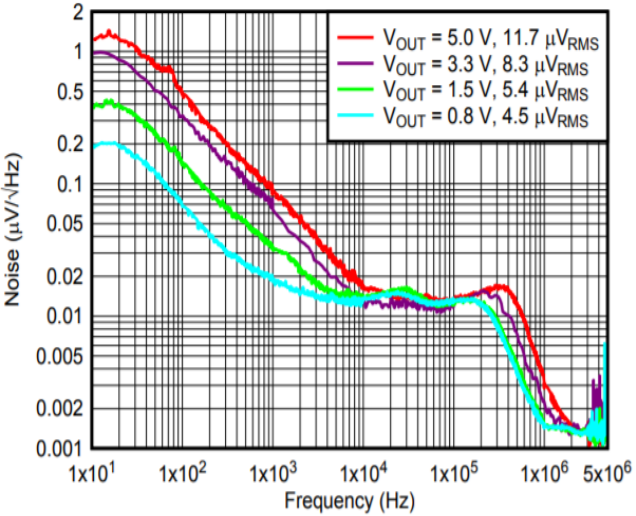


Figure 10. Output Noise vs Frequency and Output Voltage

The next thing that effects noise is the noise reduction capacitor

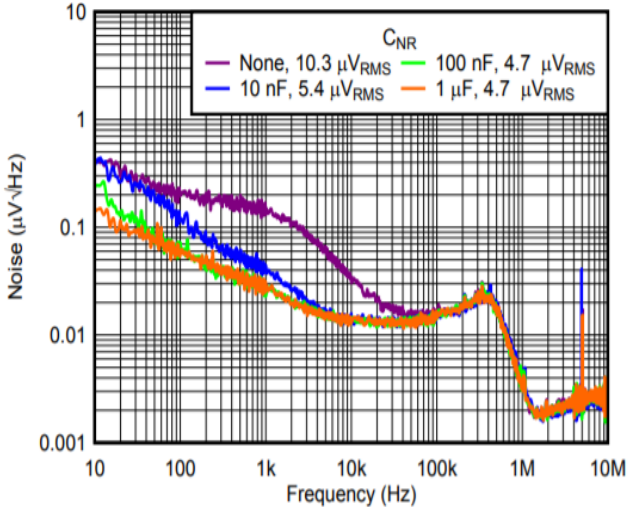


Figure 9. Spectral Noise Density vs Frequency and $C_{NR/SS}$

And the final thing that effects noise to a large degree is the feedforward capacitor

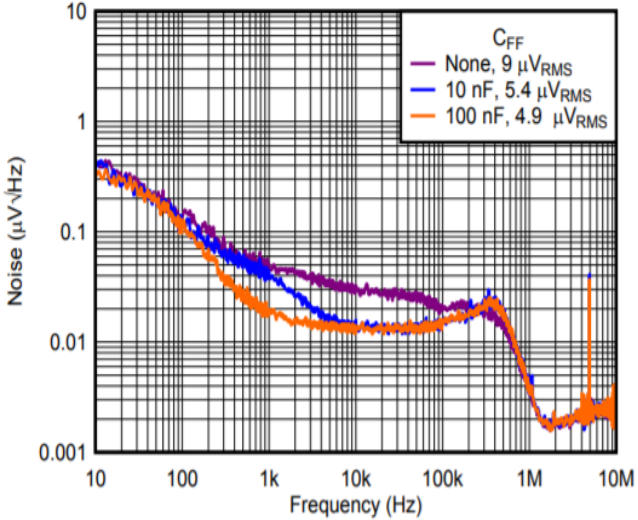


Figure 10. Spectral Noise Density vs Frequency and C_{FF}

What Conditions Do Not Effect Noise

Number one thing that has almost no effect on noise is output current

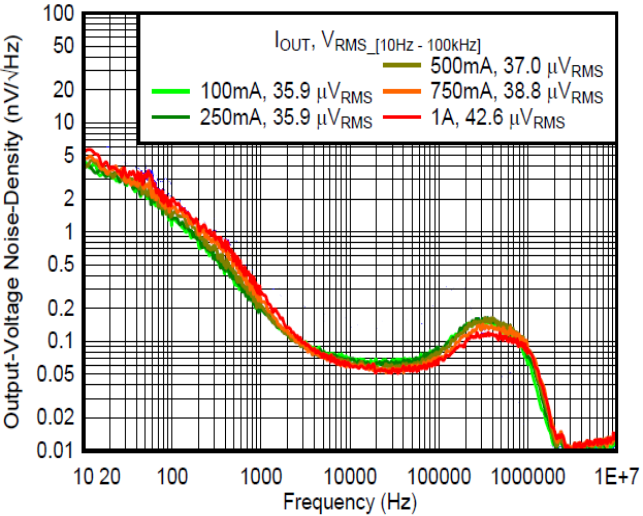


Figure 11. Noise Density vs Frequency and I_{OUT}

The next thing that has very little effect on noise is Vin

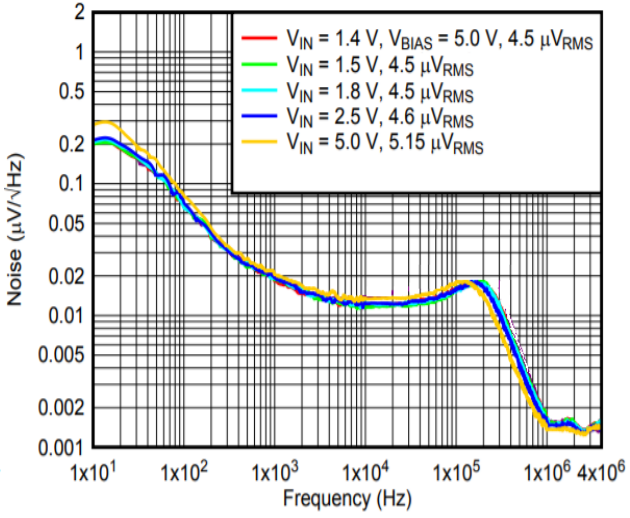


Figure 11. Output Noise vs Frequency and Input Voltage

And the final thing that has a small effect on noise is output capacitor (very large Cout can show some difference)

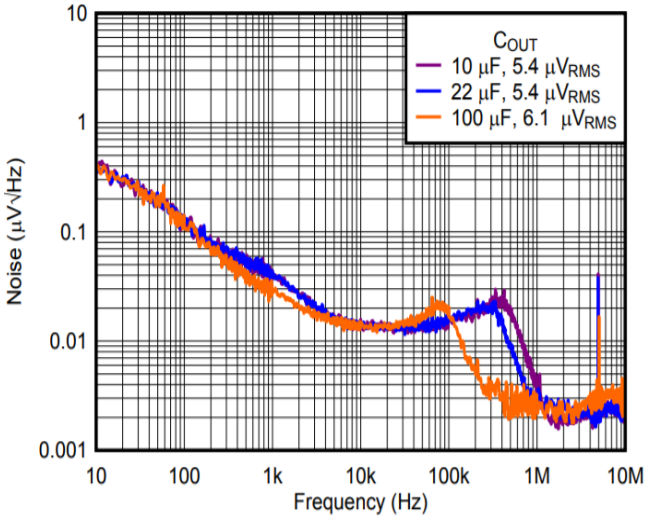


Figure 11. Spectral Noise Density vs Frequency and C_{OUT}