



# Test Procedure

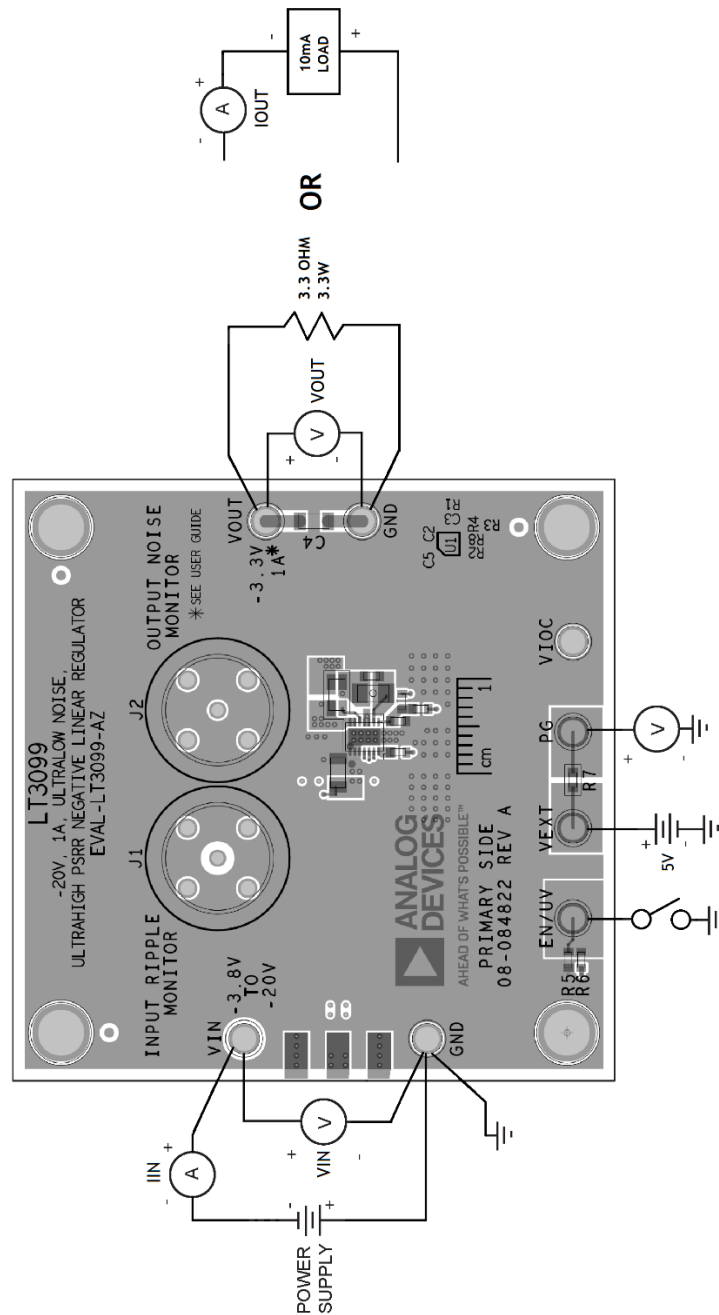
# EVAL-LT3099-AZ

**Document No.** : 18-084822 Rev A  
**Title** : EVAL-LT3099-AZ Customer Evaluation Board Test Procedure

REVISION HISTORY				
Revision	ECR #	Description of Change	Date	Author
A	ECR-0xxxxx	Initial Release	02/01/2025	Andrew Radosevich

Required Approvers	
Approver Roles	Approver Names
Apps Engineer	Andrew Radosevich

## Bench Set Up





**Record measurements in the Test Data Table and verify that the recorded measurements are within the limits.**

## **Tests**

1. With the VIN supply turned to 0V, connect the circuit as shown in the Bench Set Up drawing EXCEPT don't connect the load, VEXT or anything to EN/UV yet. DON'T FORGET THAT GROUND IS POSITIVE AND VIN IS NEGATIVE.
2. Make sure the VIN supply is on and set the VIN supply to around -5V. Connect the 3.3 Ohm, 3.3W load. Re-adjust VIN to -3.8V. Measure VOUT.  $I_{OUT} = V_{OUT} / 3.3 \text{ Ohm}$ . Measure IIN.
3. Increase VIN to -5V. Connect a jumper wire between the EN/UV terminal and ground. Measure VOUT.
4. Connect 5V to VEXT. Remove the jumper wire between the EN/UV terminal and ground terminal while observing EN/UV, VOUT and PG with an oscilloscope. Measure the startup time using the EN/UV and PG signals according to Figure 1. Then use the VOUT NOISE MONITOR BNC connector as the input to the oscilloscope and measure the VOUT ripple voltage as shown in Figure 2.
5. Remove the 3.3 Ohm resistor on VOUT and apply a 10mA load instead. Set the VIN supply to -20V. Measure VOUT.
6. Return the VIN supply to 0V and remove the load.

# Test Procedure

# EVAL-LT3099-AZ

Test Data Table

Step	Parameter	Condition	Min	Measured	Max	Units
2	VOUT	VIN=-3.8V, RLOAD=3.3 Ohms	-3.25		-3.39	V
	$I_{OUT} = V_{OUT} / 3.3 \text{ Ohm}$		0.9		1.1	A
	IIN		IOUT+15mA		IOUT+30mA	A
3	VOUT	VIN=-5V, EN/UV=GROUND, RLOAD=3.3 Ohms			-0.01	V
4	START UP TIME	VIN=-5V, VEXT=5V, CYCLE EN/UV, RLOAD=3.3 Ohms	0.75		3	milliseconds
	VOUT(RIPPLE)				10	mV(pk-pk)
5	VOUT	VIN=-20V, IOUT=10mA	-3.25		-3.39	V

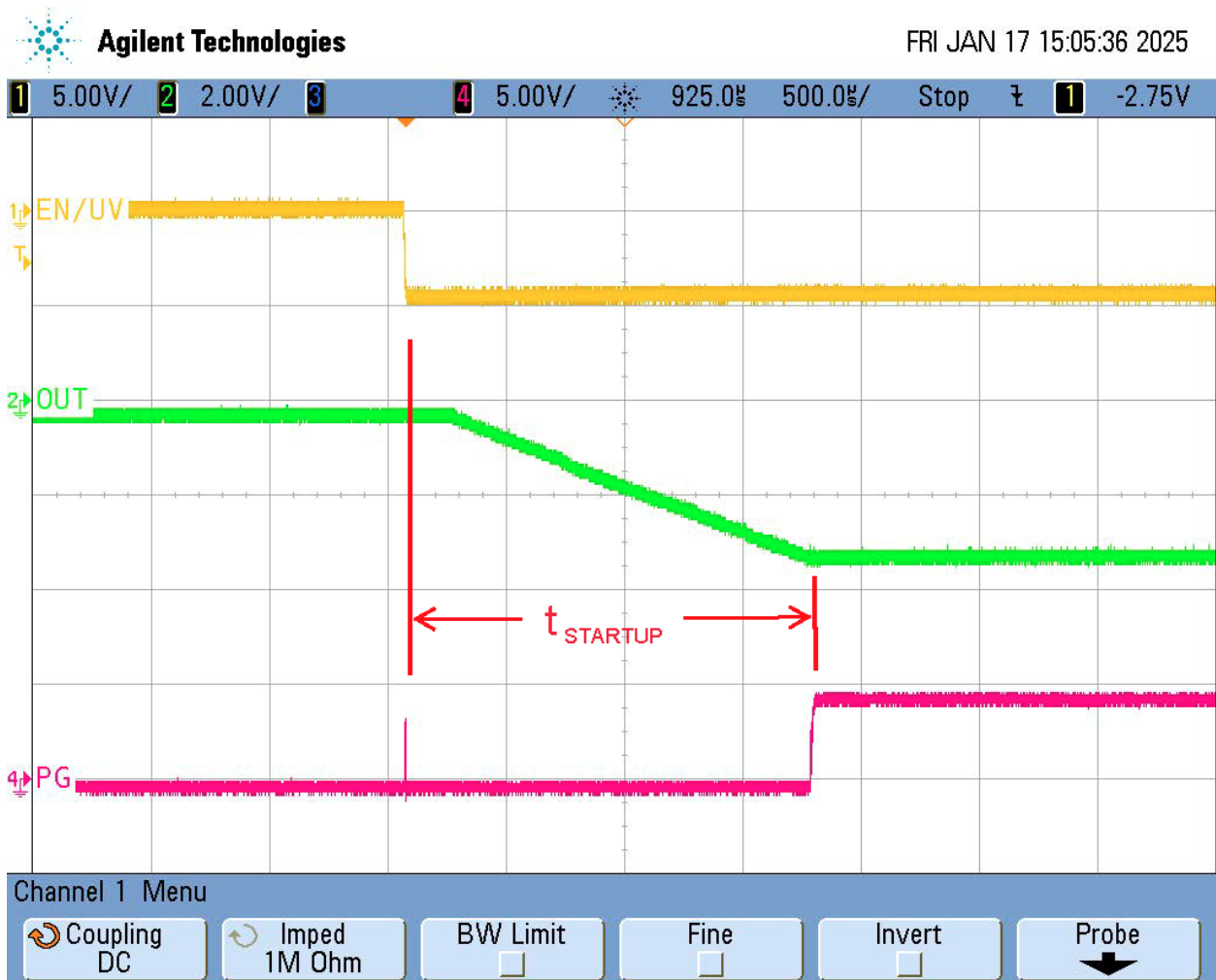


Figure 1: Startup Time



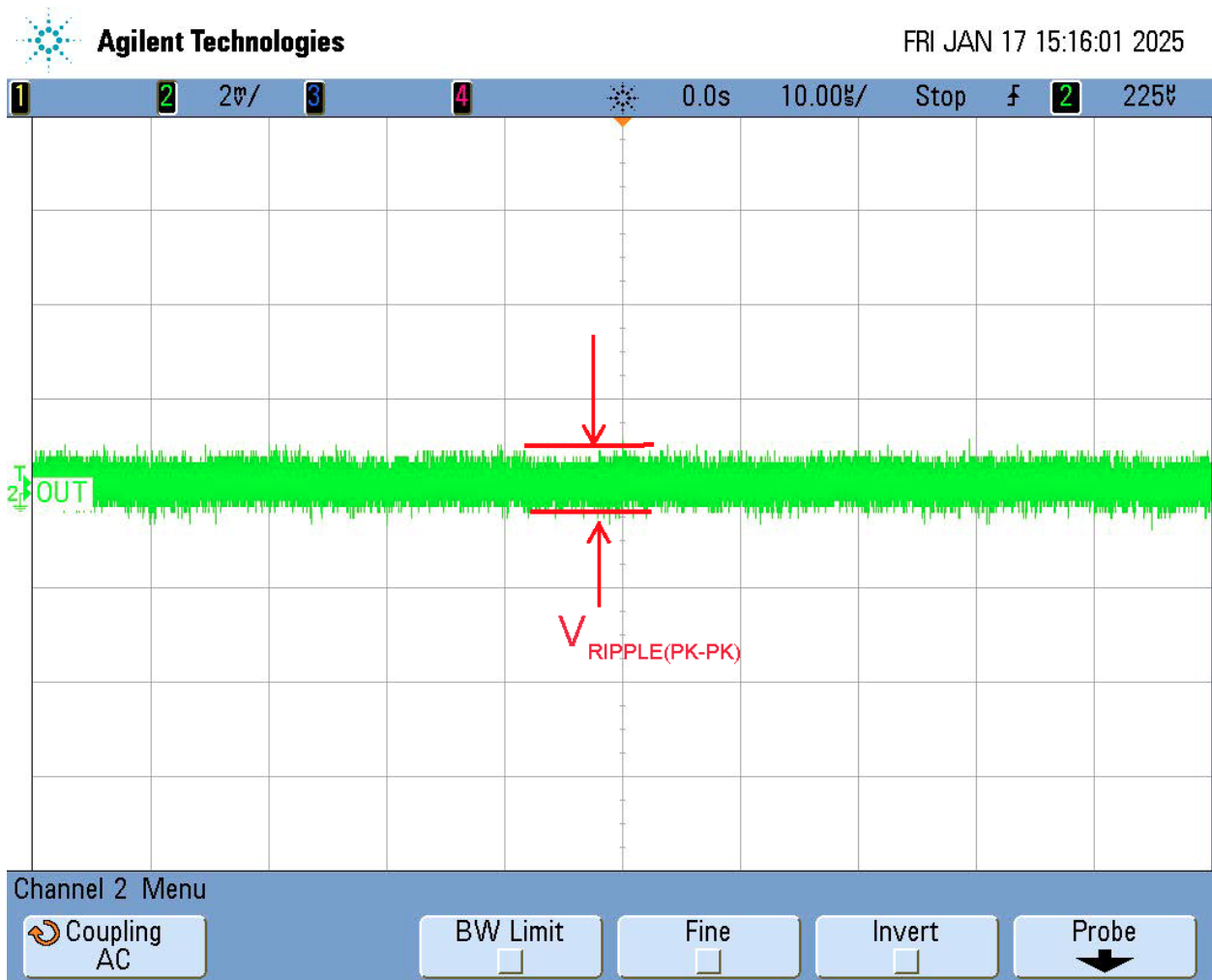


Figure 2: VOUT Ripple Voltage