

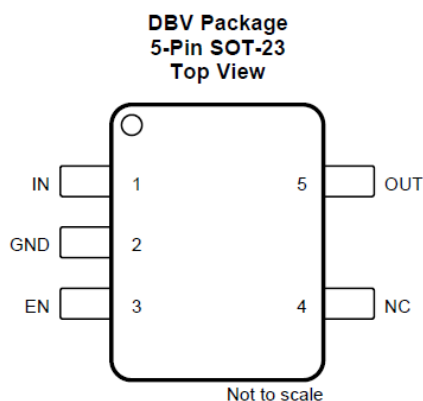
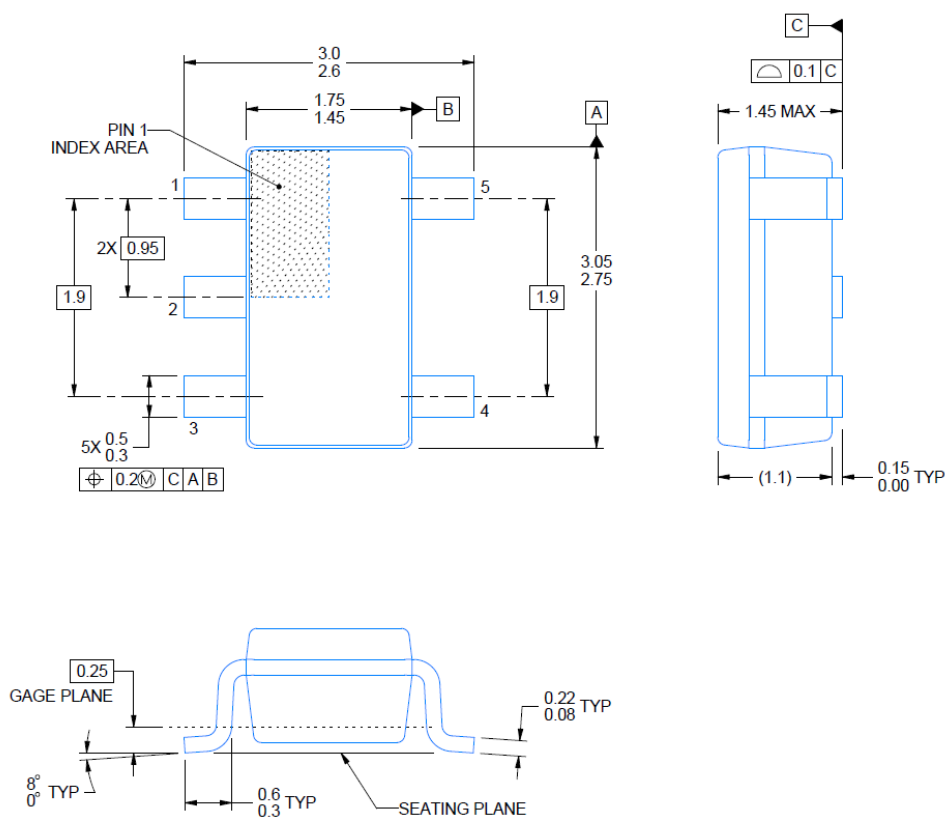
Comparison of Main source and 2nd source

Test Report

Hardware version	FW version	Main source P/N	2 ND source P/N
V025	BFX_AT100 userdebug 10 QTT5.200429.010 15.534.28-20220818-release keys	TLV755XXPDBVR	ETA5056VXXS2F

Main Source(TLV755XXPDBVR) spec:

	MIN	NOM	MAX	UNIT
I_{OUT} Output current	0		500	mA

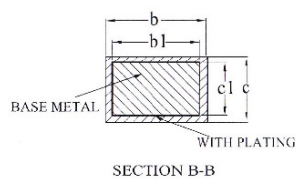
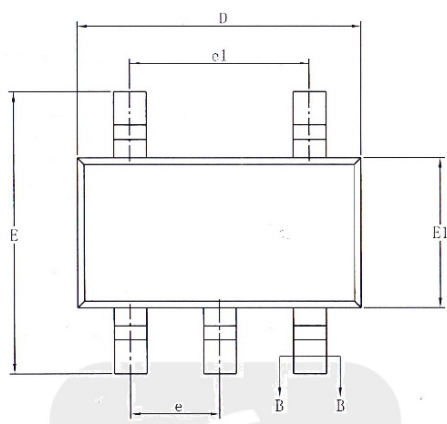
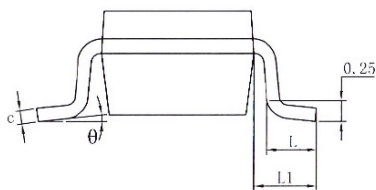
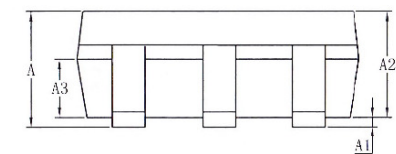


2nd Source(ETA5056VXXS2F) spec:

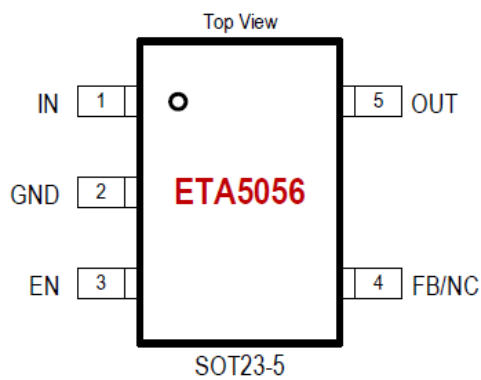
FEATURES

- 500mA output current

Package: SOT23-5



SYMBOL	MILLIMETER		
	MIN	NOM	MAX
A	—	—	1.25
A1	0.04	—	0.10
A2	1.00	1.10	1.20
A3	0.60	0.65	0.70
b	0.33	—	0.41
b1	0.32	0.35	0.38
c	0.15	—	0.19
c1	0.14	0.15	0.16
D	2.82	2.92	3.02
E	2.60	2.80	3.00
E1	1.50	1.60	1.70
e	0.95BSC		
e1	1.90BSC		
L	0.30	—	0.60
L1	0.60REF		
θ	0	—	8°



T99X171T00 2nd source introduce ETA5056VXXS2F

1. Test Item

If want to import 2nd source, sill need to test the following items:

- a. Vin
- b. Vout
- c. AC ripple

2. Power Test Setup

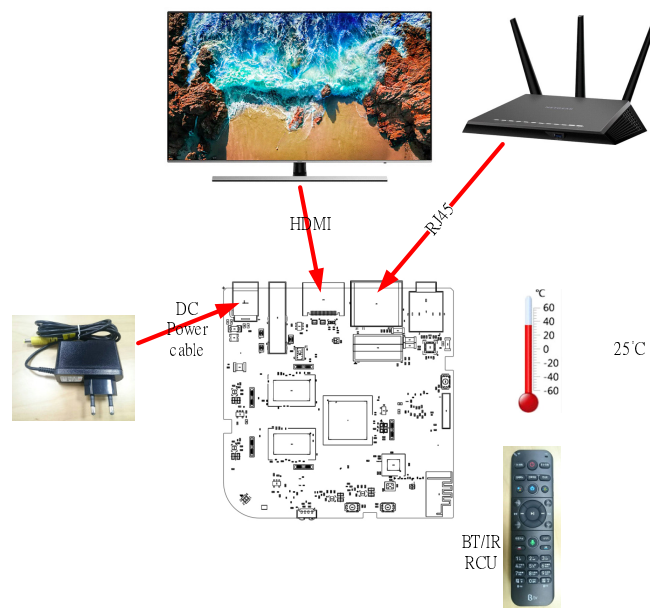
The measure test point is LDO_P2V5 and the capacitor C334

Emmc_VDDQ and the capacitor C322

P1V8 and the capacitor C337

all items can be measured by Oscilloscope.

Oscilloscope: TDS5054B



3. Test Condition

DC Power cable is connected, Ethernet cable is connected, use HDMI cable and TV to play 4K video by YOUTUBE.

a. Vin:

Measure U307 pin1(Vin), U303 pin1(Vin) and U306 pin1(Vin).

b. Vout:

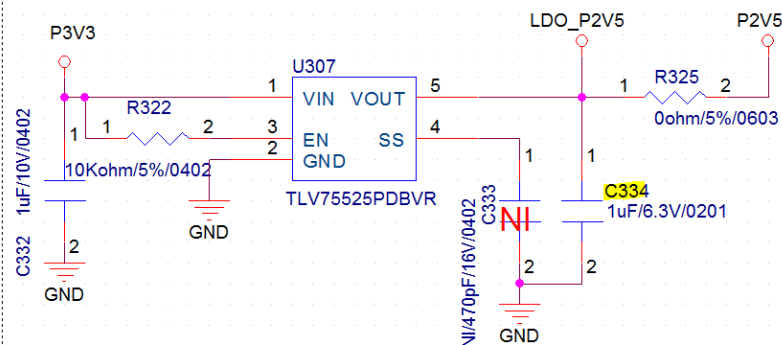
Measure U307 pin5(Vout), U303 pin5(Vout) and U306 pin5(Vout).

c. Ripple test:

Setting Oscilloscope parameter to AC, and measure C334, C322 and C337 to check ripple is under specification (+-5%)

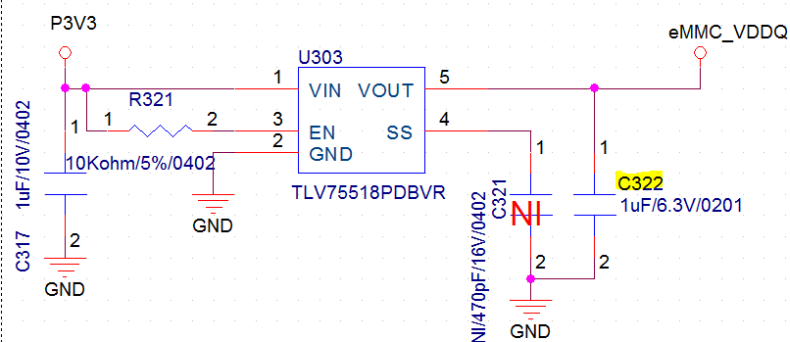
P3V3 to P2V5

Design Max: 500mA



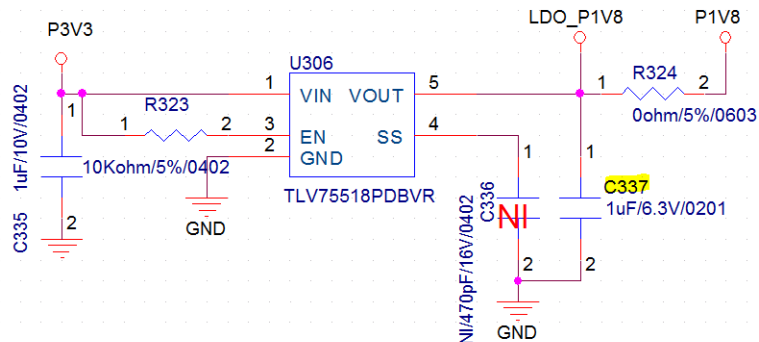
P3V3 to eMMC_VDDQ

Design Max: 500mA



P3V3 to P1V8

Design Max: 500mA



4. Result and Picture

Power Rail	Power IC / MOSFET P/N	Spec	Measurement point	Result	Picture	Result Pass/Fail
Main_LDO_P2V5_Vin Vout	TLV75525PDBVR	3.14V-3.46V 2.38V-2.62V	U307 pin1 U307 pin5	3.32V 2.48V	Fig. 1	Pass
Main_LDO_P2V5_ripple	TLV75525PDBVR	<125mV	C334	34.14mV	Fig. 2	Pass
Main_eMMC_VDDQ_Vin Vout	TLV75518PDBVR	3.14V-3.46V 1.71V-1.89V	U303 pin1 U303 pin5	3.32V 1.8V	Fig. 3	Pass
Main_eMMC_VDDQ_ripple	TLV75518PDBVR	<90mV	C322	19.41mV	Fig. 4	Pass
Main_LDO_P1V8_Vin Vout	TLV75518PDBVR	3.14V-3.46V 1.71V-1.89V	U306 pin1 U306 pin5	3.32V 1.8V	Fig. 5	Pass
Main_LDO_P1V8_ripple	TLV75518PDBVR	<90mV	C337	15.3mV	Fig. 6	Pass

Power Rail	Power IC / MOSFET P/N	Spec	Measurement point	Result	Picture	Result Pass/Fail
2 nd _LDO_P2V5_Vin Vout	ETA5056V25S2F	3.14V-3.46V 2.38V-2.62V	U307 pin1 U307 pin5	3.339V 2.508V	Fig. 7	Pass
2 nd _LDO_P2V5_ripple	ETA5056V25S2F	<125mV	C334	35.17mV	Fig. 8	Pass
2 nd _eMMC_VDDQ_Vin Vout	ETA5056V18S2F	3.14V-3.46V 1.71V-1.89V	U303 pin1 U303 pin5	3.322V 1.823V	Fig. 9	Pass
2 nd _eMMC_VDDQ_ripple	ETA5056V18S2F	<90mV	C322	12.25mV	Fig. 10	Pass
2 nd _LDO_P1V8_Vin Vout	ETA5056V18S2F	3.14V-3.46V 1.71V-1.89V	U306 pin1 U306 pin5	3.323V 1.811V	Fig. 11	Pass
2 nd _LDO_P1V8_ripple	ETA5056V18S2F	<90mV	C337	17.11mV	Fig. 12	Pass

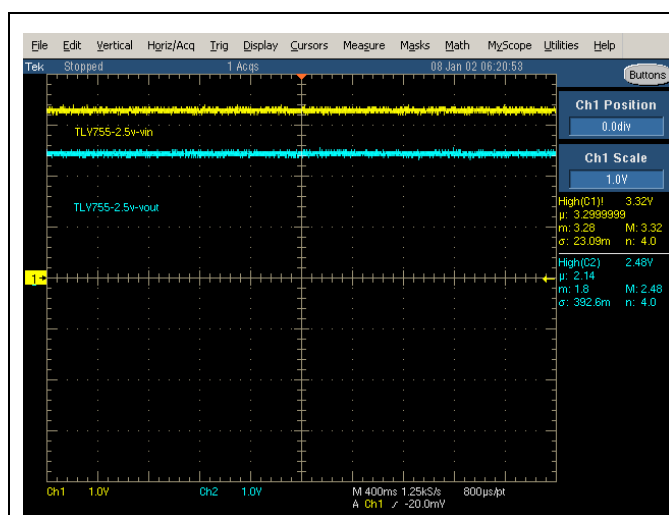


Fig. 1: Main_LDO_P2V5_Vin Vout

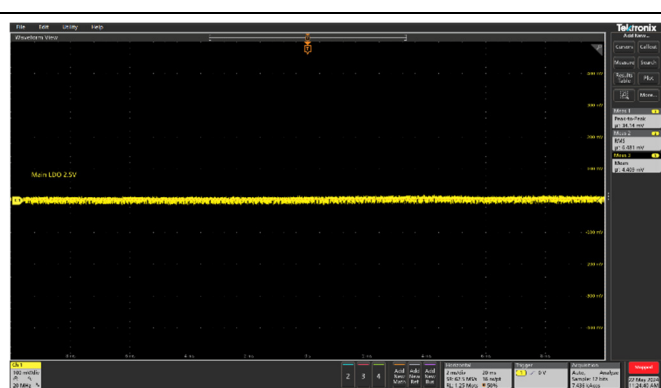


Fig. 2: Main_LDO_P2V5_ripple

T99X171T00 2nd source introduce ETA5056VXXS2F

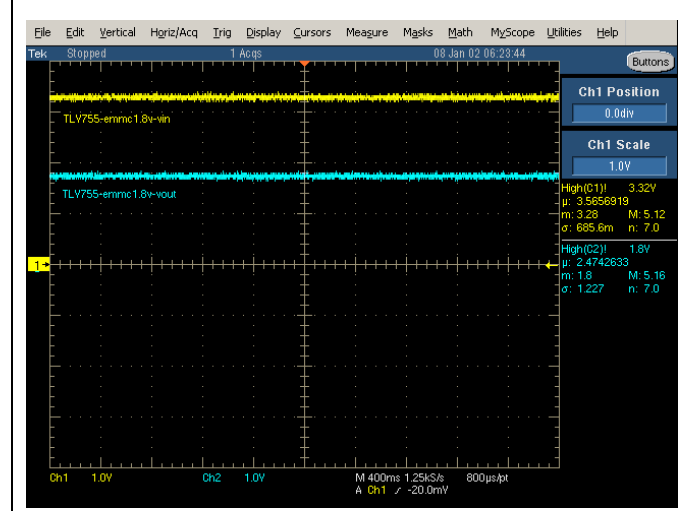


Fig. 3: Main_eMMC_VDDQ_Vin Vout

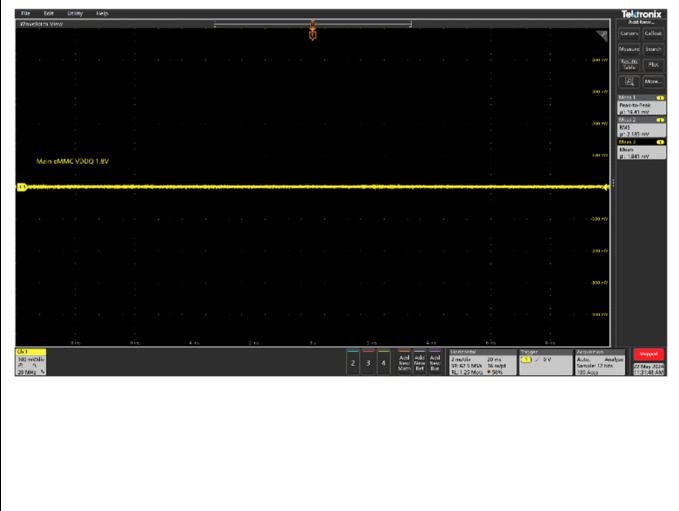


Fig. 4: Main_eMMC_VDDQ_ripple



Fig. 5: Main_LDO_P1V8_Vin Vout

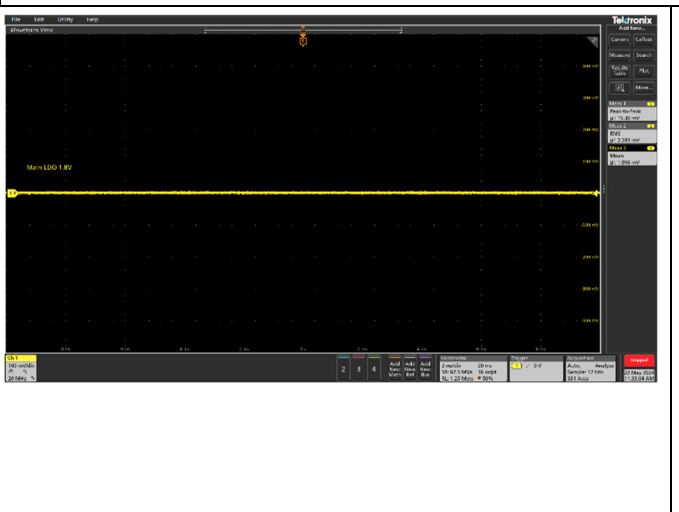


Fig. 6: Main_LDO_P1V8_ripple

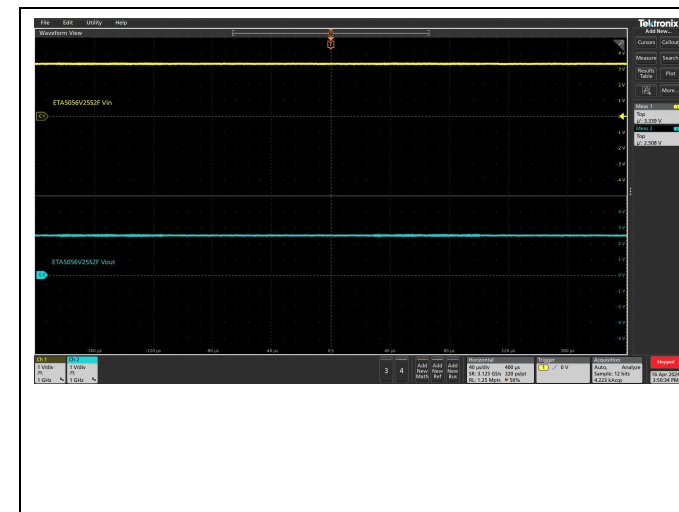


Fig.7: 2nd_LDO_P2V5_Vin Vout

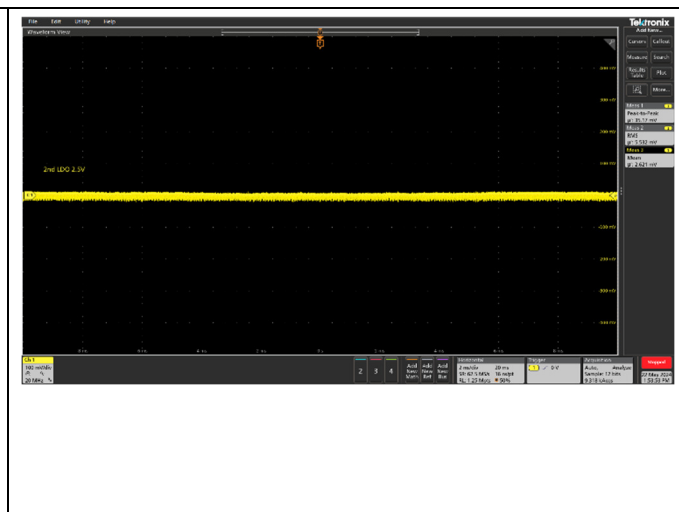


Fig. 8: 2nd_LDO_P2V5_ripple

T99X171T00 2nd source introduce ETA5056VXXS2F

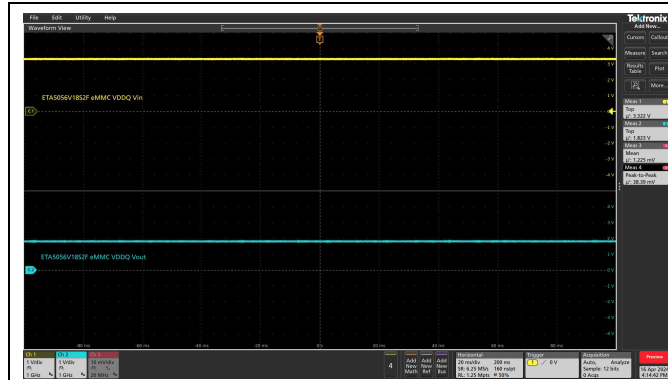


Fig. 9: 2nd_eMMC_VDDQ_Vin Vout

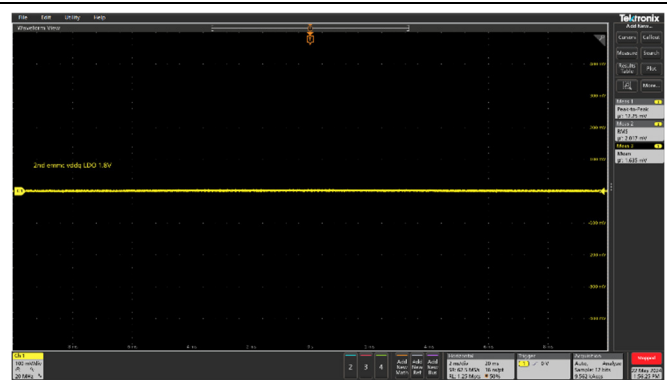


Fig. 10: 2nd_eMMC_VDDQ_ripple

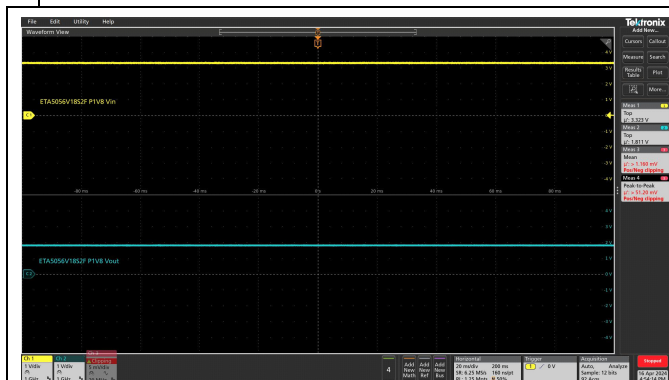


Fig. 11: 2nd_LDO_P1V8_Vin Vout

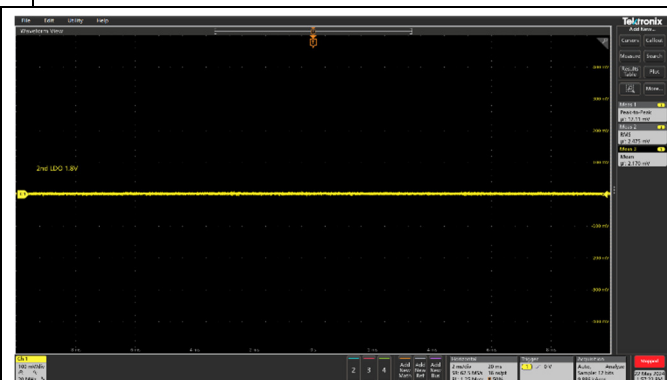


Fig. 12: 2nd_LDO_P1V8_ripple

5. Conclusion

	TLV75518PDBVR (main)	ETA5056V18S2F (2nd)
Total test Results	PASS	
Can it be introduced?	Yes	

	TLV75525PDBVR (main)	ETA5056V25S2F (2nd)
Total test Results	PASS	
Can it be introduced?	Yes	