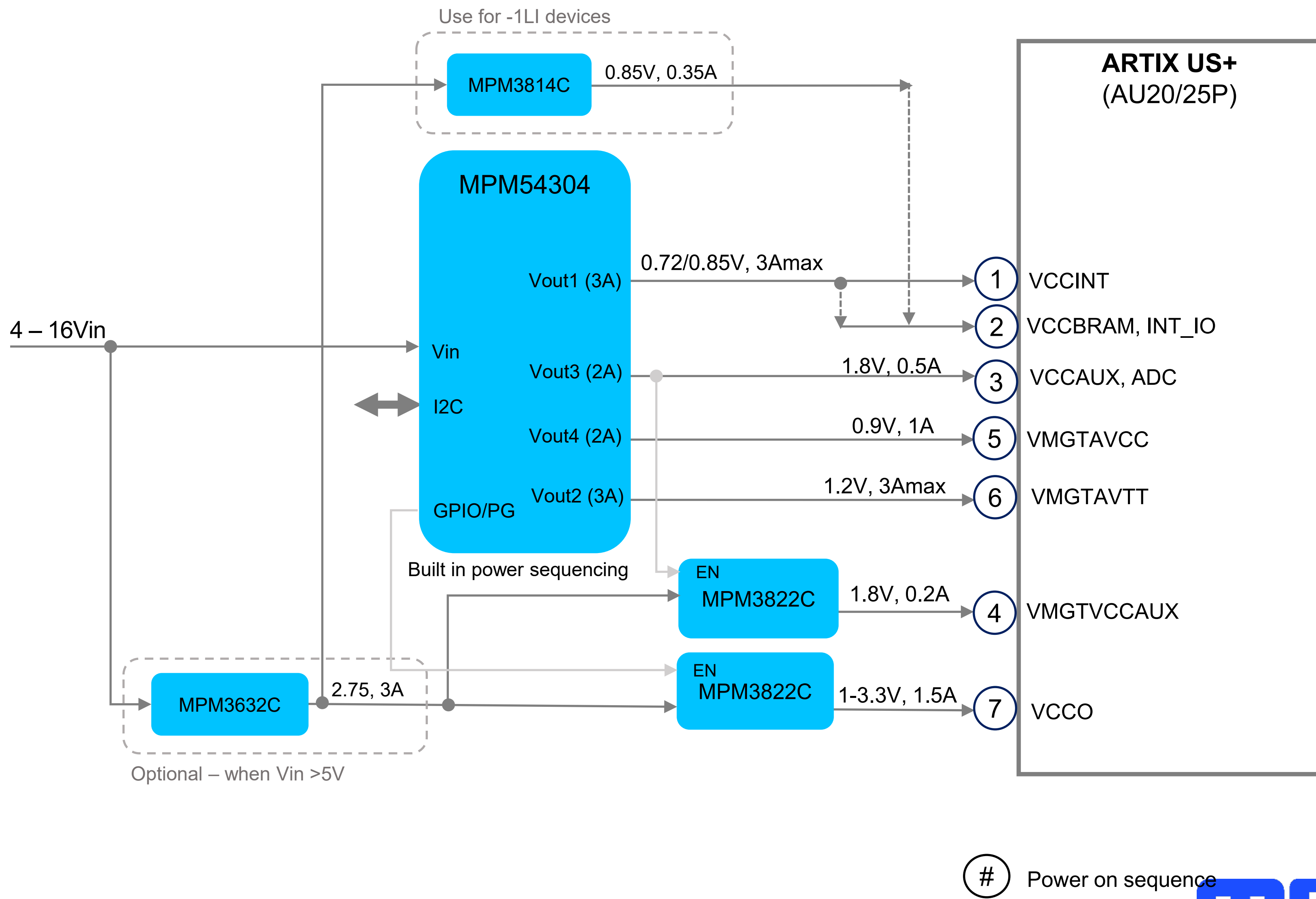
Artix UltraScale+ Test Report

Size Optimized: AU20/25P

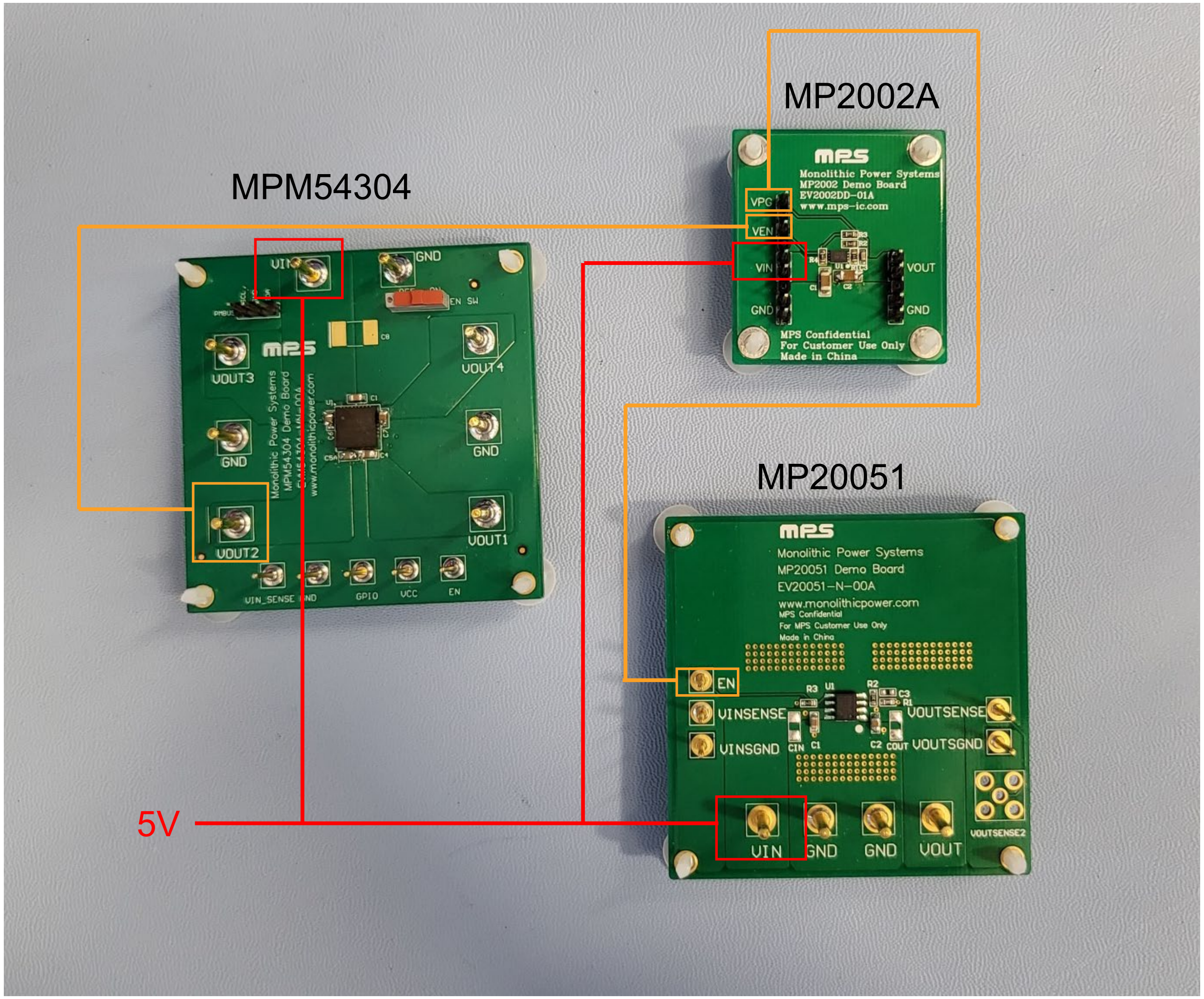
Updated
1/25/2024

rev 20180504

Artix US+ AU20P/25P Solution – Size Optimized

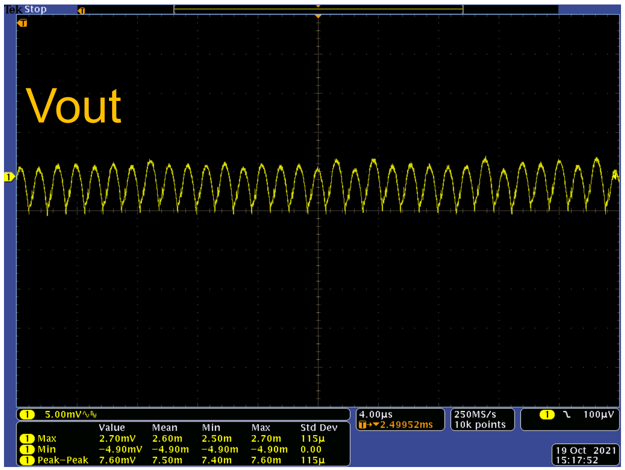


AU20P/AU25P (MPM54304 PMIC Module) EVB Connection

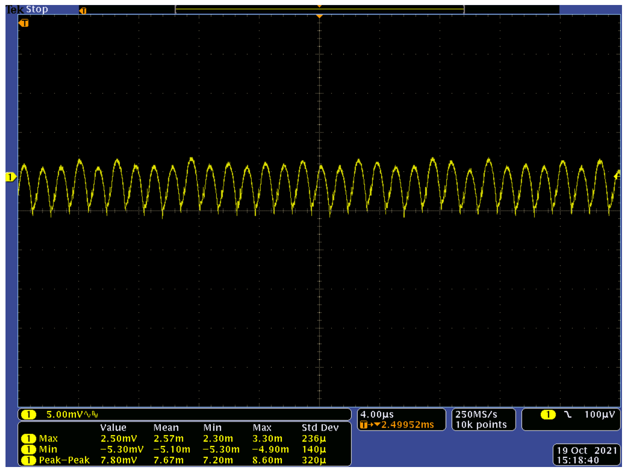


AU20P/AU25P
VCCINT Ripple (MPM54304 PMIC Module)

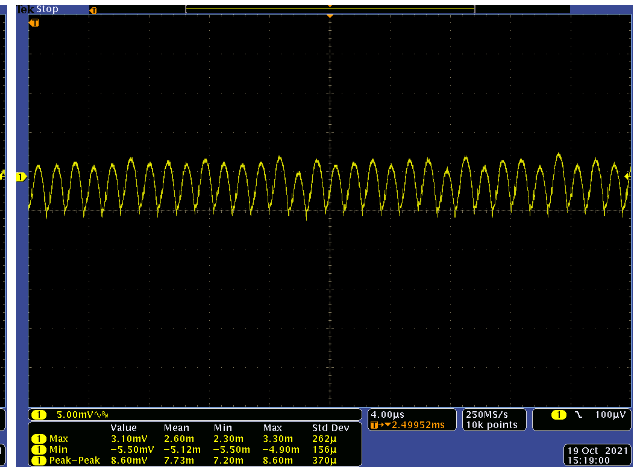
Standby



Half Load



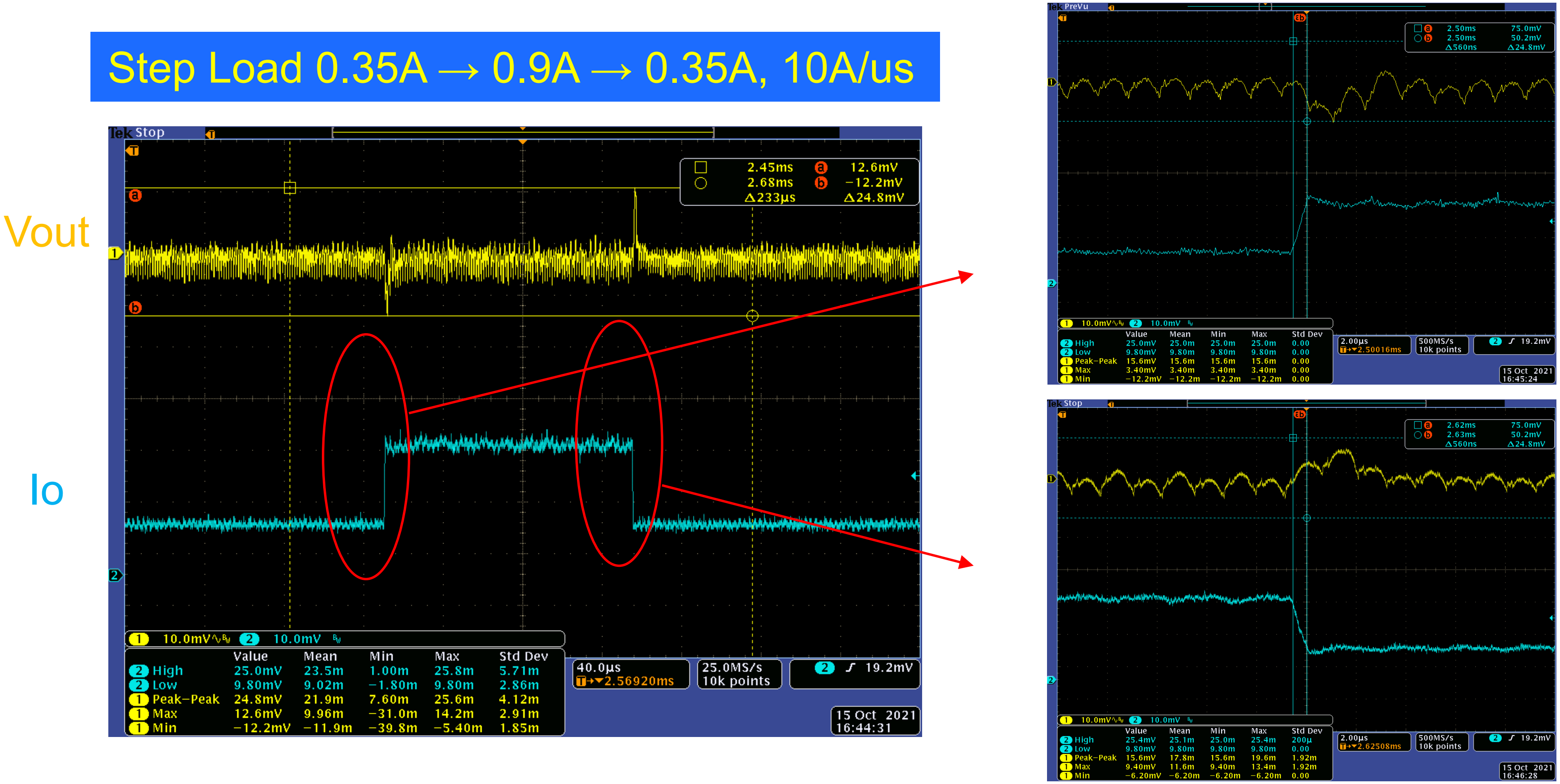
Max Load



- ❑ 7.6 mV peak-peak ripple at Standby
- ❑ 7.8 mV peak-peak ripple at Half load
- ❑ 8.6 mV peak-peak ripple at Max load

AU20P/AU25P
VCCINT Transient (MPM54304 Module)

Step Load 0.35A → 0.9A → 0.35A, 10A/us



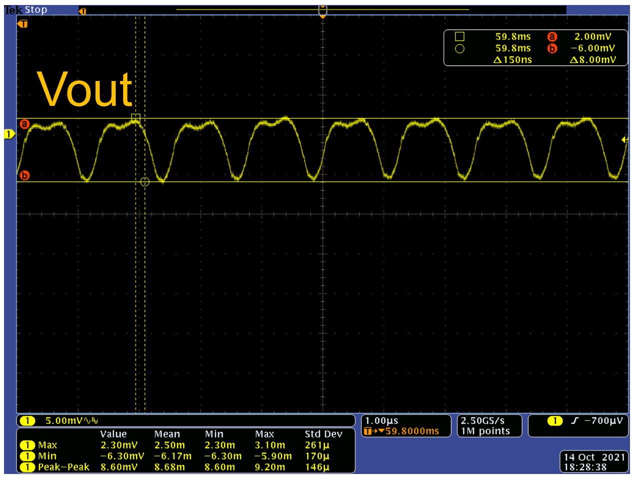
❑ Vout ripple -1.4% (-12.2mV) to +1.5% (12.6mV) with load transient

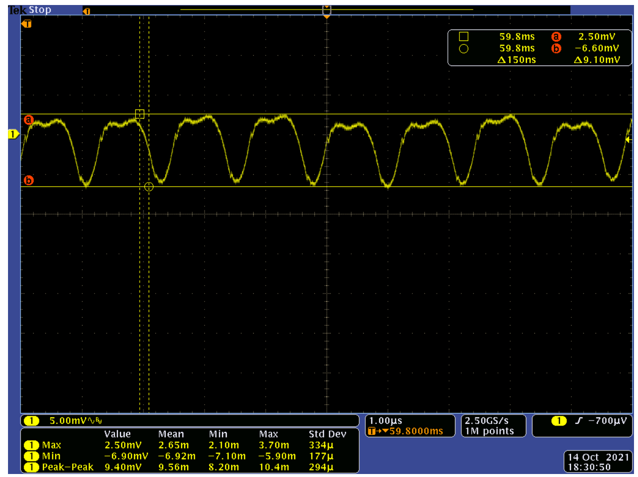
AU20P/AU25P
VMGAVTT Ripple (MPM54304 Module)

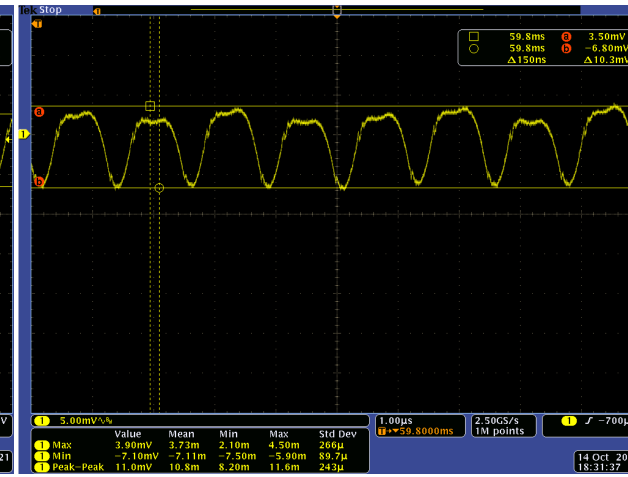
Standby

Half Load

Max Load





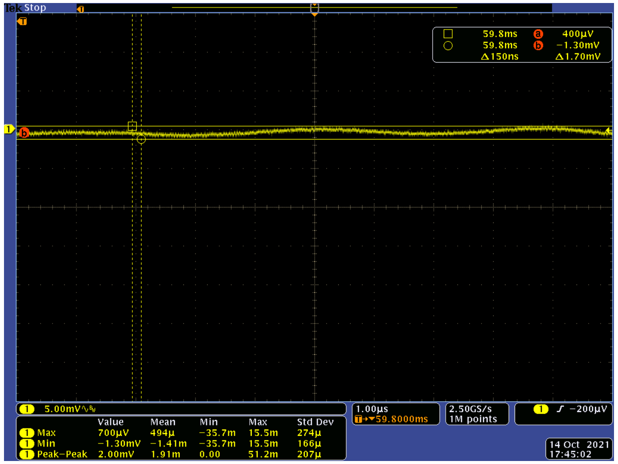


- ❑ 8.6 mV peak-peak ripple at Standby
- ❑ 9.4 mV peak-peak ripple at Half load
- ❑ 11.0 mV peak-peak ripple at Max load

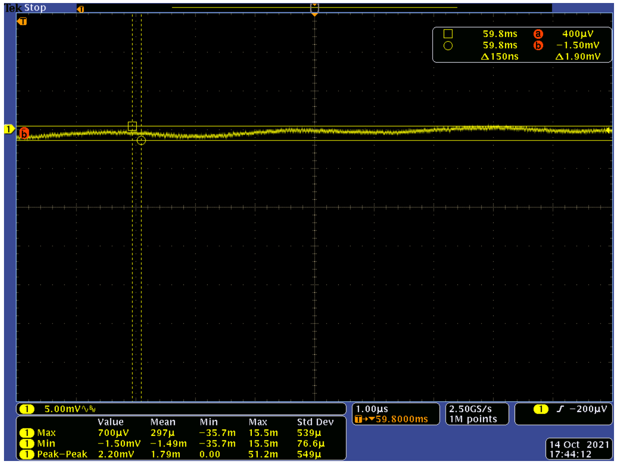
AU20P/AU25P VMGTVCCAUX Ripple (MP2002A)

Standby

Half Load



Max Load

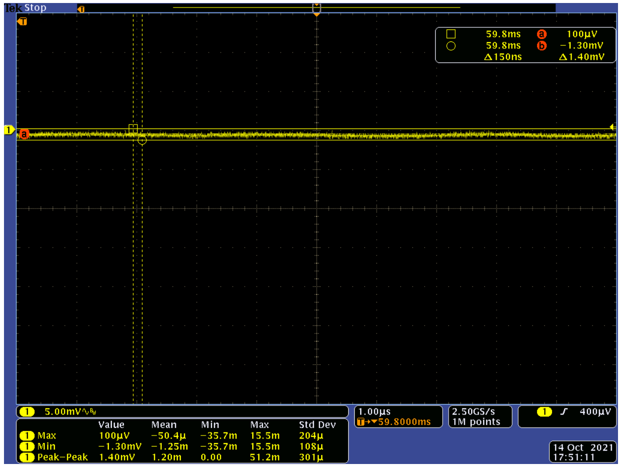


- ❑ 1.2 mV peak-peak ripple at Standby
- ❑ 2.0 mV peak-peak ripple at Half load
- ❑ 2.2 mV peak-peak ripple at Max load

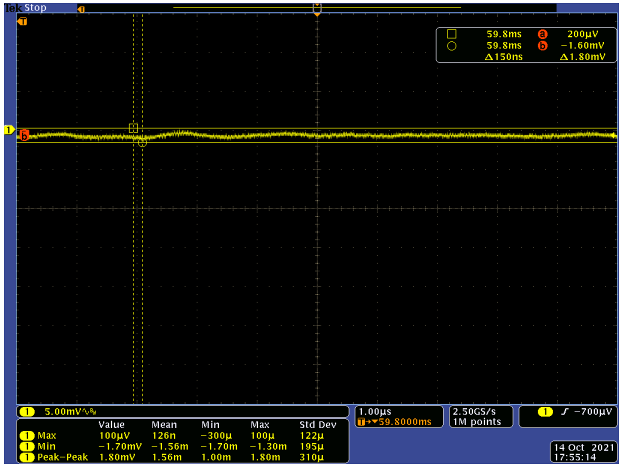
AU20P/AU25P VMGTYAVCC Ripple (MP20051)

Standby

Half Load



Max Load



- ❑ 1.2 mV peak-peak ripple at Standby
- ❑ 1.4 mV peak-peak ripple at Half load
- ❑ 1.8 mV peak-peak ripple at Max load

AU20P/AU25P (MPM54304 PMIC Module)

	Vo	Ripple No load	Ripple Half load	Ripple Full load	Pwr ON Seq
MPM54304-Buck1	0.85V	7.6mVpp	7.8mVpp	8.6mVpp	1 (0 ms)
MPM54304-Buck3	1.8V	12.6mVpp	13mVpp	14mVpp	2 (1mS)
MP54304-Buck2	1.2V	8.6mVpp	9.4mVpp	11.0mVpp	3 (2mS)
MP2002A	1.8V	1.2mVpp	2.0mVpp	2.2mVpp	4 (2.16mS)
MP20051	0.9V	1.2mVpp	1.4mVpp	1.8mVpp	5 (2.5mS)
MPM54304-Buck4	3.3V	19.2mVpp	19.2mVpp	19.8mVpp	6 (3.2mS)