SLI Compliance Engineering Change Evaluation and Review Form

Vendor:	Hart InterCivic	**Date:**	07-Sep-21
Change ID:	ECO-01496	**Affect System(s):**	Verity Voting 2.3, 2.4, 2.5, and 2.6
Product:	Update Verity Duo Series Device Power Regulator Circuit		

Change Summary Description
Summary Description: ECO-01496 modifies a power regulator circuit design on the Verity Touch Writer Duo series baseboards to move away from the Linear Tech LT8711 power controller and instead use the more widely available Texas Instruments (TI) TPS552882 series part. **Reason for Change:** This modification described on this ECO is intended to mitigate the effects of global electronic component shortages. **ECO Category:** Preferred

	Change Evaluation	**Comments**
☐	The change affects the form, fit or function of the equipment and therefore requires hardware testing to be performed. The testing requirements are defined in the Hardware Test Matrix table below. Any changes made to a system under test will result in the manufacturer supplying a list and detailed description of all changes.	N/A
☒	**Minor change order:** A minor change order is a change to a certified voting system's hardware, software, Technical Data Package (TDP), or data, the nature of which will not materially alter the system's reliability, functionality, capability, or operation.	Requested updates do not materially alter the system's reliability, functionality, capability, or operation.
☒	**System documentation:** The manufacturer has provided a description of how this change will impact any relevant system documentation and has provided the updated documentation, if applicable.	Supported documentation was provide for all equivalent components.

Summary Comments
The modification described on this ECO affects the Verity Touch Writer Duo series devices only. There are no changes to software and is functionally identical to existing baseboards the Linear Tech LT8711. The TI TPS552882RPMR is improved upon compared to the Linear Tech LT8711 in terms of operating temperature, being able to operate even farther outside Hart's specification on the hot end. The operating junction temperature changes as follows: ▪ Linear Tech (old part): -40C to 125C

- Texas Instruments (new part): -40C to 150C

Due to the addition of some passive components described in this ECO to match the reference design of the Linear Tech LT8711, EMC testing was performed on the Verity Touch Writer Duo series devices. Testing included all standards relevant to the circuit modification.

As required under section 3.5.1 of the EAC's Voting System Testing and Certification Program Manual Version 3.0, Hart InterCivic has provided the necessary information to verify the ECO-01496 is a minor change and therefore not to affect the Verity Voting 2.3, 2.4, 2.5, and 2.6 Federal certification status. All tests passed successfully, and no additional testing is deemed required.

	Approved by/Title	**Signature:**	**Date:**
	Darrick Forester Hardware Test Engineer		07-Sep-21
	Traci Mapps Vice President, SLI Compliance		07-Sep-21