PCN Number:	20230425000.0	**PCN Date:**	April 25, 2023
Title:	TPS53685 and TPS536C5 Firmware change		
Customer Contact:	PCN Manager	**Dept:**	Quality Services

Change Type:					
☐	Assembly Site	☐	Assembly Process	☐	Assembly Materials
☒	Design	☐	Electrical Specification	☐	Mechanical Specification
☐	Test Site	☐	Packing/Shipping/Labeling	☐	Test Process
☐	Wafer Bump Site	☐	Wafer Bump Material	☐	Wafer Bump Process
☐	Wafer Fab Site	☐	Wafer Fab Materials	☐	Wafer Fab Process
		☐	Part number change		

PCN Details

Description of Change:

This notification is to communicate and update the Firmware for the TPS53685 and TPS536C5 devices. Affected devices are listed in the Product Affected section of this document.

The FW_VERSION_INFO.PATCH_VERSION is changing from 01020500h to 01020600h.

Additional changes include:

1. Factory default checksum updated from 0x39D8 / 0xCEB8 to 0x31D4 / 0xC6B4 (8ph / 12ph):
   - OCP pin factory default setting updated from push-pull to open-drain (bit 89 in reg 0xCD)

   Impact #1: None, it is overwritten by user config file
2. Added/enabled available features as options: disabled by default
   - Option to use single threshold for phase shedding / adding all phases simultaneously, consistent with SVI3 specification
   - Support for power stages with CS pin supplied in current instead of voltage

   Impact #2: None, default setting is unchanged.
3. Default value of SVI3 VID_MAX will be pulled from PMBus VOUT_MAX instead of defaulting to 00h (disabled), consistent with SVI3 VOUT_MAX_SUPPORTED
   - Prevents errors if SVI3 OVP_REF is changed to VID_MAX instead of VID

   Impact #3: None, no change in normal operation.
4. Fixed bug preventing NVM storage of Rail B phase adding / shedding threshold changes
   - Enables programming the load current thresholds for different phase add/shed.

   Impact#4: None, existing thresholds are maintained. Only relevant to customers using DPS and with non-default thresholds.

Reason for Change:

Improved device functionality

Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):

None.

Product Affected:

TPS53685RSBR	TPS536C5RSLR

For questions regarding this notice, e-mails can be sent to the contact shown below or your local Field Sales Representative.

Location	E-Mail
WW PCN Team	PCN_ww_admin_team@list.ti.com

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