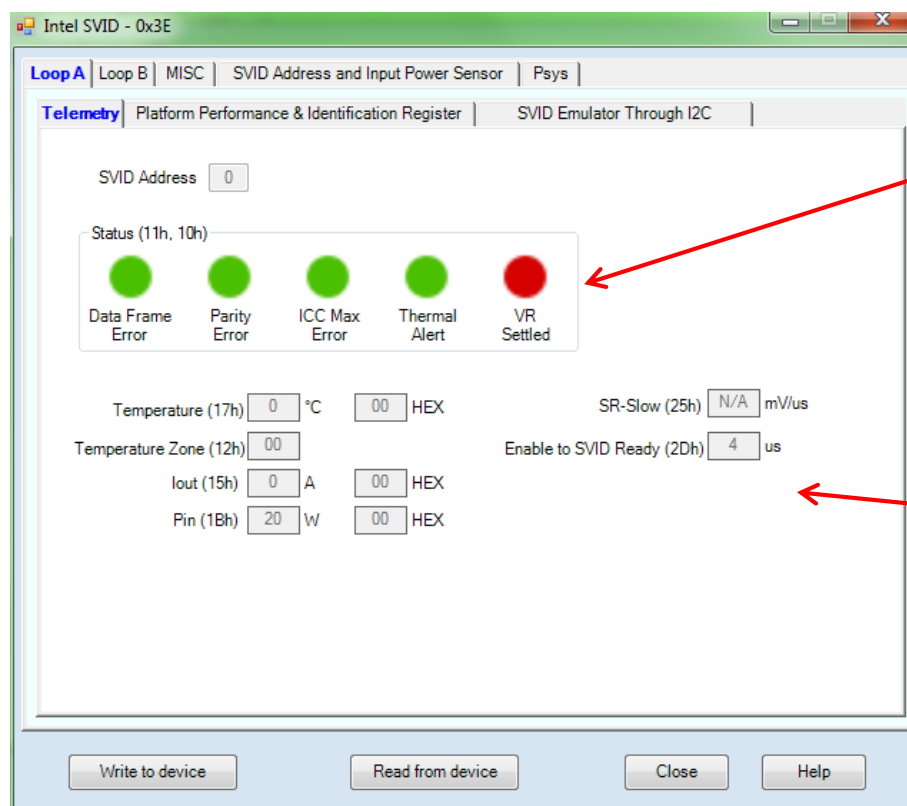


SVID... Telemetry XDPE122xx family

The Intel SVID window is only available for devices that support SVID



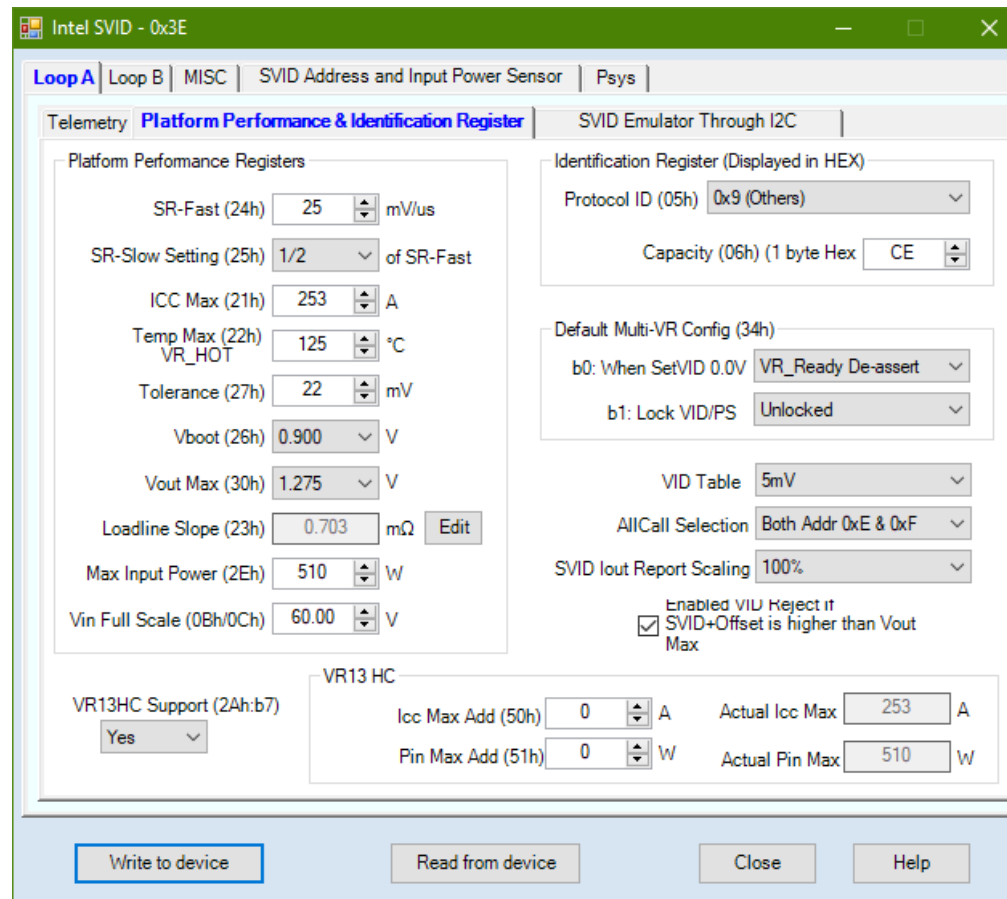
Readout of the status bits in SVID registers.

Readout of parameters in SVID registers.

SVID... Platform Performance XDPE122xx family

Allow settings of all the registers that SVID use.

Depending on settings some parameters may not be visible if not used i.e. VR13HC settings only visible when VR13HC is activated.



The screenshot shows the 'Intel SVID - 0x3E' application window. The 'Platform Performance & Identification Register' tab is active. It contains several sections of settings:

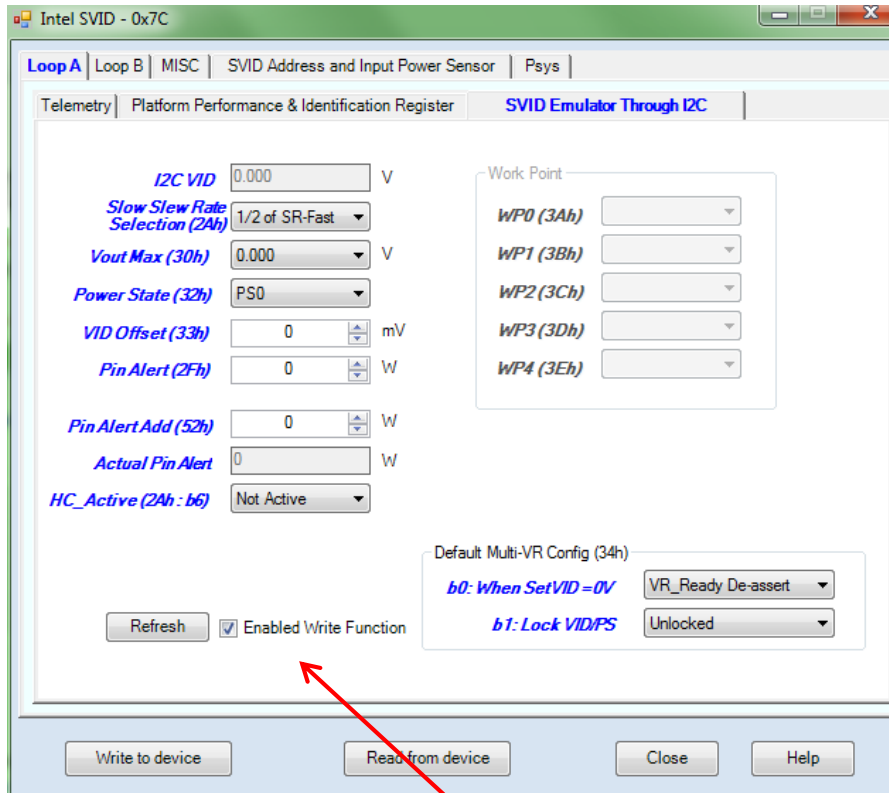
- Platform Performance Registers:**
 - SR-Fast (24h): 25 mV/us
 - SR-Slow Setting (25h): 1/2 of SR-Fast
 - ICC Max (21h): 253 A
 - Temp Max (22h) VR_HOT: 125 °C
 - Tolerance (27h): 22 mV
 - Vboot (26h): 0.900 V
 - Vout Max (30h): 1.275 V
 - Loadline Slope (23h): 0.703 mΩ (with an 'Edit' button)
 - Max Input Power (2Eh): 510 W
 - Vin Full Scale (0Bh/0Ch): 60.00 V
- Identification Register (Displayed in HEX):**
 - Protocol ID (05h): 0x9 (Others)
 - Capacity (06h) (1 byte Hex): CE
- Default Multi-VR Config (34h):**
 - b0: When SetVID 0.0V: VR_Ready De-assert
 - b1: Lock VID/PS: Unlocked
- VID Table:** 5mV
- AllCall Selection:** Both Addr 0xE & 0xF
- SVID Iout Report Scaling:** 100%
- Enabled VID Reject if SVID+Offset is higher than Vout Max:** ☒
- VR13 HC:**
 - VR13HC Support (2Ah:b7): Yes
 - ICC Max Add (50h): 0 A, Actual ICC Max: 253 A
 - Pin Max Add (51h): 0 W, Actual Pin Max: 510 W

At the bottom, there are buttons for 'Write to device', 'Read from device', 'Close', and 'Help'.

SVID... Emulator through I2C XDPE122xx family

Allow a number of SVID settings to be emulated and sent via I2C to voltage regulator.

Loop B have less number of settings as it is already set in loop A



Intel SVID - 0x7C

Loop A | Loop B | MISC | SVID Address and Input Power Sensor | Psys

Telemetry | Platform Performance & Identification Register | **SVID Emulator Through I2C**

I2C VID 0.000 V

Slow Slew Rate Selection (2Ah) 1/2 of SR-Fast

Vout Max (30h) 0.000 V

Power State (32h) PS0

VID Offset (33h) 0 mV

Pin Alert (2Fh) 0 W

Pin Alert Add (52h) 0 W

Actual Pin Alert 0 W

HC_Active (2Ah : b6) Not Active

Work Point

WP0 (3Ah)

WP1 (3Bh)

WP2 (3Ch)

WP3 (3Dh)

WP4 (3Eh)

Default Multi-VR Config (34h)

b0: When SetVID = 0V VR_Ready De-assert

b1: Lock VID/PS Unlocked

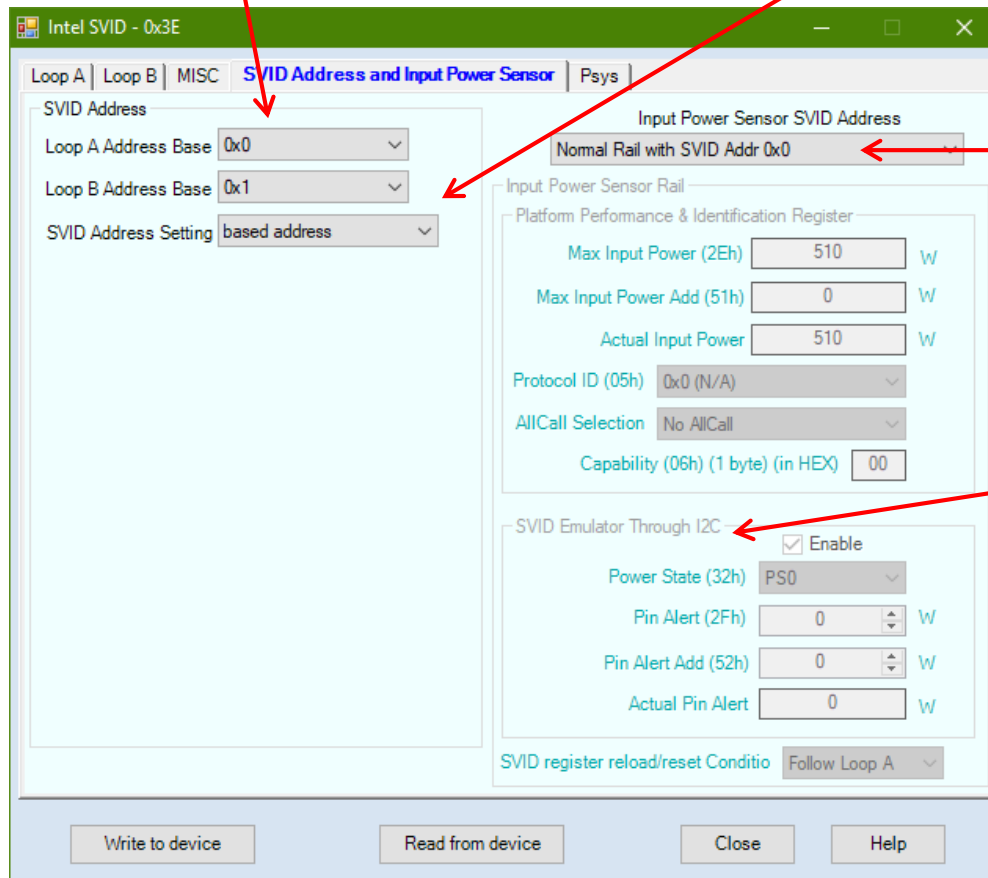
☒ Enabled Write Function

Mark the box to enable this I2C SVID emulator function

SVID... Address and Input Power Sensor XDPE122xx family

Selection of SVID address

SVID address can also be selected using external resistors. Table shows the different combinations of resistor and address



The screenshot shows the 'Intel SVID - 0x3E' application window. The 'SVID Address and Input Power Sensor' tab is selected. On the left, under 'SVID Address', there are dropdowns for 'Loop A Address Base' (0x0), 'Loop B Address Base' (0x1), and 'SVID Address Setting' (based address). On the right, under 'Input Power Sensor SVID Address', there is a dropdown set to 'Normal Rail with SVID Addr 0x0'. Below this is the 'Input Power Sensor Rail' section, which includes a 'Platform Performance & Identification Register' with fields for 'Max Input Power (2Eh)', 'Max Input Power Add (51h)', 'Actual Input Power', 'Protocol ID (05h)', 'AICall Selection', and 'Capability (06h)'. At the bottom right, the 'SVID Emulator Through I2C' section has an 'Enable' checkbox checked, and fields for 'Power State (32h)', 'Pin Alert (2Fh)', 'Pin Alert Add (52h)', and 'Actual Pin Alert'. At the very bottom, there are buttons for 'Write to device', 'Read from device', 'Close', and 'Help'.

Selection of Input power sensor.

Depending on selections some of the menus may be grayed out as they are not selectable

Allow emulation of SVID via I2C commands

Power state and input power alert **Pin Alert** can be set from GUI when the enable box is marked

SVID... Psys XDPE122xx family

Select which source to use for Psys calculations.

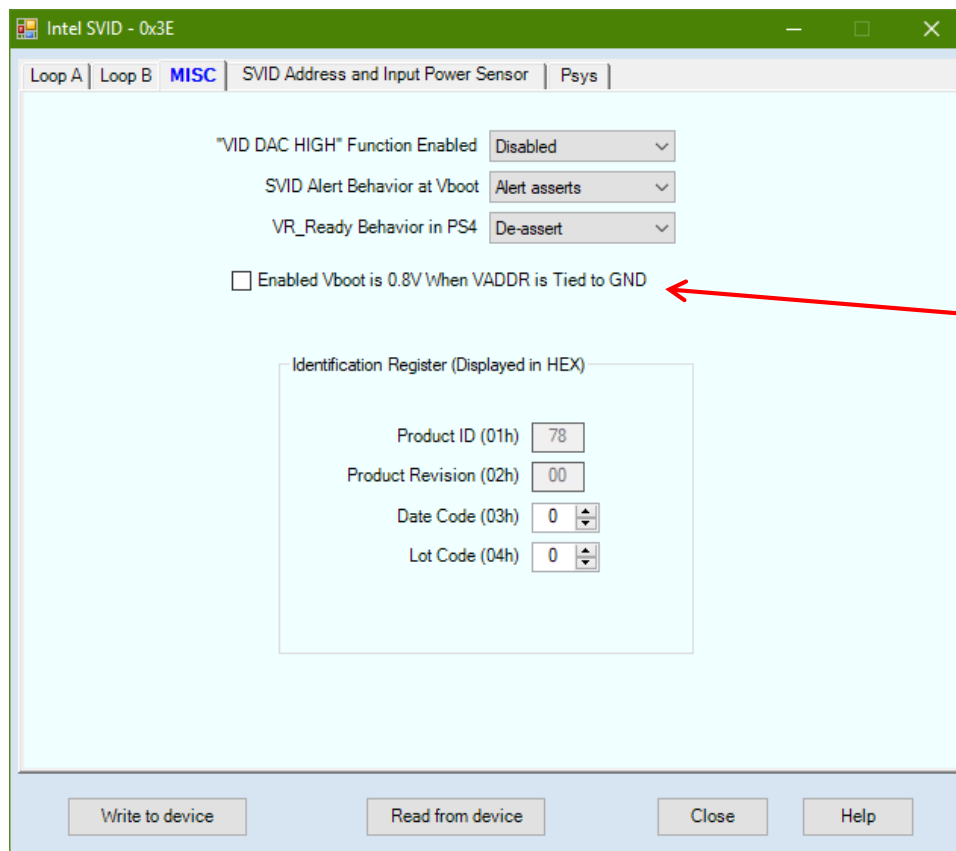
For some Source settings the Gain and offset can be trimmed to make reported input Power match measured values.

Settings for PSYS registers

To be able to write to the registers check this box.

SVID... MISC XDPE122xx family

This window have SVID settings that are not grouped into other functions.



Enable Vboot It is used for testing purpose in production test. In a Vboot=0 application it is not easy to know if the 0Volt means there is an error or not. With function enabled and short vaddr pin to ground, output will go to 0.8V when VREN is asserted.

Using this function, the production can short vaddr pin to GND and measure Vout to determine if the board has any issues before they ship the board.