

U-SKU supports four integrated USB-C ports and Y-SKU supports three integrated USB-C ports. Due to this, there could be maximum of four PD Controller and four re-timers. This translates to maximum of eight devices on the SMLINK1 bus for a platform.

USB-C connectors are present on edges of systems and could also be on opposite ends, so (SMLink1, PMCAAlert) could be routed to long distance on the motherboard provided total bus capacitance specification is met.

USB-C Re-timer control (like Firmware Load, USB-C configuration) handling depends on the number of I<sup>2</sup>C ports available on the PD controller.

If the PD controller has two I<sup>2</sup>C ports then PCH PMC will handle the Re-timer and PD controller, but if the PD controller has three or more I<sup>2</sup>C ports then PCH PMC will handle only PD controller. Re-timers can be handled by PD controller.

SMLink1 should be run at 400 kHz when used for USB-C purposes.

## 24.2 Signal Description

Name	Type	Description
<b>INTRUDER#</b>	I	<b>Intruder Detect:</b> This signal can be set to disable the system if box detected open.
GPP_C4/ <b>SML0DATA</b>	I/OD	<b>System Management Link 0 Data:</b> SMBus link to external PHY. External Pull-up resistor required.
GPP_C3/ <b>SML0CLK</b>	I/OD	<b>System Management Link 0 Clock</b> External Pull-up resistor required.
GPP_C5/ <b>SML0ALERT#</b>	I/OD	<b>System Management 0 Alert:</b> Alert for the SMBus controller to optional Embedded Controller or BMC. External Pull-up resistor required.
GPP_C6/ <b>SML1CLK</b>	I/OD	<b>System Management Link 1 Clock:</b> SMBus link to optional Embedded Controller or BMC. External Pull-up resistor required.
GPP_C7/ <b>SML1DATA</b>	I/OD	<b>System Management Link 1 Data:</b> SMBus link to optional Embedded Controller or BMC. External Pull-up resistor required.
GPP_B23/ <b>SML1ALERT#</b> / PCHHOT#	I/OD	<b>System Management 1 Alert:</b> Alert for the SMBus controller to optional Embedded Controller or BMC. A soft-strap determines the native function SML1ALERT# or PCHHOT# usage. This is <b>NOT</b> the right Alert pin for USB-C* usage. External Pull-up resistor is required on this pin.
GPP_B11/ <b>PMCAAlert#</b>	I/OD	<b>USB Type-C* PD Controller / Re-timer Alert:</b> Alert for the SMLink1 Bus controller to all USB Type-C* PD Controllers, mandatory requirement for integrated USB-C* feature to work. External Pull-up resistor is required on this pin.

## 24.3 Integrated Pull-Ups and Pull-Downs

Signal	Resistor Type	Value	Notes
<b>SML[1:0]ALERT#</b>	Pull-down	20 kohm $\pm$ 30%	The internal pull-down resistor is disable after RSMRST# de-asserted.
<b>PCHHOT#</b>	Pull-down	20 kohm $\pm$ 30%	The internal pull-down resistor is disable after RSMRST# de-asserted.

## 24.4 I/O Signal Planes and States

Signal Name	Power Plane	During Reset <sup>1</sup>	Immediately after Reset <sup>1</sup>	S4/S5	Deep Sx
<b>INTRUDER#</b>	RTC	Undriven	Undriven	Undriven	OFF
<b>SML[1:0]DATA</b>	Primary	Undriven	Undriven	Undriven	OFF
<b>SML[1:0]CLK</b>	Primary	Undriven	Undriven	Undriven	OFF
<b>SML[1:0]ALERT#</b>	Primary	Pull-down (Internal)	Driven Low	Pull-down (Internal)	OFF
<b>PCHHOT#</b>	Primary	Pull-down (Internal)	Driven Low	Pull-down (Internal)	OFF
<b>PMCALERT#</b>	Primary	Undriven	Undriven	Undriven	OFF
<i>Note:</i> 1. Reset reference for primary well pins is RSMRST# and RTC well pins is RTCRST#.					