

9.10.2.2 PECl DC Characteristics

The PECl interface operates at a nominal voltage set by V_{CCIO} . The set of DC electrical specifications shown in Table 9-13 are used with devices normally operating from a V_{CCIO} interface supply. V_{CCIO} nominal levels will vary between processor families. All PECl devices will operate at the V_{CCIO} level determined by the processor installed in the system.

Table 9-13. PECl DC Electrical Limits

Symbol	Definition and Conditions	Min	Max	Units	Notes ¹
R_{up}	Output resistance	15	45	Ohm	3
V_{in}	Input Voltage Range	-0.15	V_{CCIO}	V	
$V_{hysteresis}$	Hysteresis	$0.1 * V_{CCIO}$	N/A	V	
V_n	Negative-Edge Threshold Voltage	$0.275 * V_{CCIO}$	$0.500 * V_{CCIO}$	V	
V_p	Positive-Edge Threshold Voltage	$0.550 * V_{CCIO}$	$0.725 * V_{CCIO}$	V	
C_{bus}	Bus Capacitance per Node	N/A	10	pF	
C_{pad}	Pad Capacitance	0.7	1.8	pF	
$I_{leak000}$	leakage current @ 0V	-	0.6	mA	
$I_{leak025}$	leakage current @ $0.25 * V_{CCIO}$	-	0.4	mA	
$I_{leak050}$	leakage current @ $0.50 * V_{CCIO}$	-	0.2	mA	
$I_{leak075}$	leakage current @ $0.75 * V_{CCIO}$	-	0.13	mA	
$I_{leak100}$	leakage current @ V_{CCIO}	-	0.10	mA	

Notes:

1. V_{CCIO} supplies the PECl interface. PECl behavior does not affect V_{TT} min/max specifications.
2. The leakage specification applies to powered devices on the PECl bus.
3. The PECl buffer internal pull up resistance measured at $0.75 * V_{CCIO}$

9.10.2.3 Input Device Hysteresis

The input buffers in both client and host models must use a Schmitt-triggered input design for improved noise immunity. Use Figure 9-2 as a guide for input buffer design.

Figure 9-2. Input Device Hysteresis



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