Peregrine Semiconductor Corp.
9380 Carroll Park Drive, San Diego, CA. 92121

Product/Process Change (PCN) Notification

PCN Number: CO-20650 Date Issued: June 28, 2018 PCN Effective Date: September 26, 2018 Product(s) Affected: PE613050 Sample Availability: June 28, 2018 Change Control Board Approval #: CO-20650	Contact: Elizabeth La Greca Title: Director, Sales Operations Phone: 858-255-7839 Email: PCN@psemi.com

Change Category:

☐ Wafer Fabrication Process	☐ Shipping/Labeling
☐ Design/Mask Change	☐ Equipment
☐ Singulation Process	☐ Material
☐ Assembly Process	☒ Product Specification: Specification change
☒ Electrical Test: Test Program change	☐ Product End of Life
☐ Manufacturing Site	☐ Other

Purpose of Change:

Ensure continuity of supply to PE613050 customer base.

Description of Change:

Product yield assessment of the PE613050 requires relaxation of the Peak Operating RF Voltage across two frequency ranges specified in the PE613050 Product Specification datasheet.

The 100 MHz – 1 GHz and 1 GHz – 3 GHz specification of 27 V_{PK} and 24 V_{PK}, respectively require relaxation to 18 V_{PK}.

The change detail is highlighted in Table 4. Operating Ranges of the PE613050 Product Specification datasheet.

There is no change to Form, Fit or Reliability. The ordering code will remain the same - PE613050A-Z/EK613050-01

For additional questions, please contact PCN@psemi.com

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Original Peak Operating RF Voltage specifications

Table 4. Operating Ranges

Parameter	Min	Typ	Max	Unit
V_{DD} Supply Voltage	2.30	2.75	5.50	V
I_{DD} Power Supply Current (V_{DD} = 2.75V, +25 °C)		140	200	µA
V_{IH} Control Voltage High	1.2	1.5	3.1	V
V_{IL} Control Voltage Low	0	0	0.5	V
Control Input Current		1	10	µA
Peak Operating RF Voltage[1,2] 5–100 MHz 100 MHz–1 GHz 1 GHz–3 GHz			 10[5] 27[3] 24[4]	 V_{PK} V_{PK} V_{PK}
T_{OP} Operating Temperature Range	–40	+25	+85	°C

Notes: 1. Between all RF ports, and from RF ports to GND.
2. Pulsed RF input duty cycle of 50% and 4620 µs, measured per 3GPP TS 45.005.
3. RF input power of 38.6 dBm, 50Ω.
4. RF input power of 37.6 dBm, 50Ω.
5. RF input power of 30.0 dBm, 50Ω.

New Peak Operating RF Voltage specifications

Table 4. Operating Ranges

Parameter	Min	Typ	Max	Unit
V_{DD} Supply Voltage	2.30	2.75	5.50	V
I_{DD} Power Supply Current (V_{DD} = 2.75V, +25 °C)		140	200	µA
V_{IH} Control Voltage High	1.2	1.5	3.1	V
V_{IL} Control Voltage Low	0	0	0.5	V
Control Input Current		1	10	µA
Peak Operating RF Voltage[1,2] 5–100 MHz 100 MHz–1 GHz 1 GHz–3 GHz			 10[5] 18[3] 18[4]	 V_{PK} V_{PK} V_{PK}
T_{OP} Operating Temperature Range	–40	+25	+85	°C

Notes: 1. Between all RF ports, and from RF ports to GND.
2. Pulsed RF input duty cycle of 50% and 4620 µs, measured per 3GPP TS 45.005.
3. RF input power of 35.1 dBm, 50Ω.
4. RF input power of 35.1 dBm, 50Ω.
5. RF input power of 30.0 dBm, 50Ω.

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Qualification Summary:

N/A

Customer Acknowledgement of Receipt*:

☐ Change Denied *(Include explanation in comments section below)* ☐ Change Approved	**Name:**	
	Title:	
	Company:	
	Date:	
	Signature:	
Customer Comments:		