


Resistors Product Change Notification

PCN Number	PCN-2022-RBU01
PCN Title	Lead (Pb) bearing Commercial PFC Process Upgrade.
PCN Date	24th March 2022
Type of Change	<input type="checkbox"/> End of Life Notification <input checked="" type="checkbox"/> Manufacturing Facility Change or Addition <input checked="" type="checkbox"/> Datasheet Specification Change <input type="checkbox"/> Other: <input checked="" type="checkbox"/> Material Change <input checked="" type="checkbox"/> Process Change <input checked="" type="checkbox"/> Design Change
Manufacturing Location(s) Affected	Dallas (USA)
Date of Change Implementation	<p>Implementation by case size:</p> <p>(1) 0402 (Orders shipped commencing 1st July 2022)</p> <p>(2) 0603 (Orders shipped commencing 1st July 2022)</p> <p>(3) 0805 (Orders shipped commencing 1st July 2022)</p> <p>(4) 1206 (Orders shipped commencing 1st July 2022)</p> <p>Existing orders at the time of implementation and any new orders, will be supported by either the current or new design product.</p> <p>Product with new and old construction will be supplied until inventories are consumed</p>

Products Affected	
TT Series	Affected Variants
	Commercial products covered by this PCN: Included product. (Note: This relates to Commercial Pb bearing Terminations parts only) a. Case size 0402, 0603, 0805, 1206 b. TCR Codes: (USA) (EMEA) i. -01: 100 ppm R-01: 100 ppm ii. -02: 50 ppm R-02: 50 ppm iii. -03: 25 ppm R: 25 ppm iv. -11: 15 ppm R-11: 15 ppm v. -12: 10 ppm R-12: 10 ppm c. Tolerance: i. -B (±0.1%) ii. -D (±0.5%) iii. -F (±1%) iv. -G (±2%) v. -J (±5%)
PFC	PFC-W0402R PFC-W0603R PFC-W0805R PFC-W1206R W0402xxPB W0603xxPB W0805xxPB W1206xxPB

		<p>d. R values:</p> <ul style="list-style-type: none"> i. 0402: 15R – 30K ii. 0603: 5R – 100K iii. 0805: 50R0 – 100K (For Low TCR values : 10 – 15ppm) iv. 0805: 5R0 – 267K (For Higher TCR Values : 25 – 100ppm) v. 1206: 5R0 – 1M <p>The Leaded commercial PFC products identified above will move from the PFC Special Series to the PFC Commercial Series as defined by the relevant datasheet which can be accessed via the following links:</p> <p>https://www.ttelectronics.com/TTElectronics/media/ProductFiles/Datasheets/PFC.pdf https://www.ttelectronics.com/TTElectronics/media/ProductFiles/Datasheets/PFC-S.pdf</p>
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Change Detail	
Description of Change	<p>(1) No change to part number or form/fit/function. Updated product will fit the same solder pads but minor tolerance changes have been made to account for pre- and post-PCN product shipments during inventory consumption.</p> <p>(2) Termination modified to align with modern design rules and process techniques, see details below:</p> <ul style="list-style-type: none"> a. Simplified termination stack incorporating thick film conductor inks (Ag / Au) that replace sputtered precious metals in the current design b. NiCr sputtered wraparound edges c. Outer plated layers are unchanged <p>(3) Introduce state of the art trimming methods as a replacement to photolithography to achieve resistor pattern</p> <p>(4) Switch from diced to scribed ceramics</p> <p>(5) Employ electrical overload screening to 100% of product to remove non typical components from shipped product</p> <p>(6) Introduce digital marking on product size 0603, 0805, 1206 only. (0402 not marked).</p> <p>(7) New Product is easily distinguished from legacy product by topcoat protection color – black instead of blue, and presence of digital marking on updated product.</p>  <p>MOQ is 5000 pieces on all sizes. Standard packaging will be 5K per reel. 1K reel sizes will be available for quotation.</p>
Reason for Change	<p>Establish capacity increase for PFC using modern manufacturing techniques, materials, and equipment.</p>

Implementation Plan	(1) Notify all potentially affected customer, notification to include 2year usage, PNs
Customer Impact	(1) No change to form / fit / function. (2) Product encapsulation color will change from blue to black; potential impact on PCB automated inspection processes. (3) Reel size change to 5K SPQ will reduce frequency of reel changes in PCB assembly processes.
Recommendations	Change MRP Systems: <ul style="list-style-type: none"> • MOQ: 5000 pieces • Country of Origin: Taiwan
Availability of Previously Manufactured Product	Previously manufactured product will ship until inventory is exhausted.
Availability of Approval Samples	Product functions identically for purposes of Form / Fit / Function. Sample requests will be considered individually and will be subject to product lead time.
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Approvals			
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Issued by	Mark Beeston	Product Line Manager	24/03/2022
Approved by	Barry Peters	VP Product Management and Engineering	24/03/2022
Approved by	Klaus Zwerschina	Global Sales Director	24/03/2022