



Certificate of RoHS Compliance, MLCC

RoHS 3 (10/10) compliant MLCC dielectric series:

X7R (W): R05W, R07W, R14W, R15W, R18W, R29W, R30W, S41W, S43W, S47W, S48W, S49W, X07W, X14W, X15W, X18W, X41W, X43W, X44W, T07W, T14W, T15W, T18W, T41W, T43W, T48W, T49W, H42W, H47W, H51W, H52W, H54W, H66W, E15W

X5R (X): R05X, R07X, R14X, R15X, R18X, S41X, S43X, X14X

NPO (N): R05N, R07N, R14N, R15N, R18N, R29N, R30N, S41N, S43N, S47N, S48N, S49N, X07N, X14N, X15N, X18N, T07N, T14N, T15N, T18N, T41N, T43N, T48N, T49N, E15N, H42N, H47N, H51N, H54N

Automotive AEC-Q200: +AQ

JOHANSON DIELECTRICS Certifies standard component(s) of part number(s) series listed on this document, when stated as “RoHS 3 (10/10)” are in compliance with RoHS Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, including Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU of the European Parliament and of the Council of 31 March 2015 on the Restriction of the use of certain Hazardous Substances in electrical and electronics equipment (RoHS Directives)

Components intentionally plated with Tin-Lead (Sn/Pb) termination codes, “T” or “W”, are not RoHS certified.

RoHS requested leaded and stacked capacitors are classified as RoHS 9/10 and require the use of RoHS exception 7(a) (lead in high melting temperature type solders) and meet EU Directive 2011/65/EU (RoHS) and the requirements of Directive 2015/863/EU. The part numbers include the +RC suffix.

JOHANSON DIELECTRICS certifies the above products are RoHS Compliant and are free of substances listed in Table 1.

Table 1 Substances and threshold levels

#	Substances	Threshold Level
1	Cadmium and Cadmium compounds (Cd)	<100ppm or <0.01%
2	Lead and Lead compounds (Pb)	<1000ppm or <0.1%
3	Mercury and Mercury Compounds (Hg)	<1000ppm or <0.1%
4	Hexavalent chromium compounds (Cr6+)	<1000ppm or <0.1%
5	Polybrominated biphenyls (PBBs)	<1000ppm or <0.1%
6	Polybrominated diphenyl ethers (PBDEs) including decabromobiphenyl ether [DecaBDE]	<1000ppm or <0.1%
7	Bis(2-ethylhexyl) phthalate (DEHP)	<1000ppm or <0.1%
8	Butyl benzyl phthalate (BBP)	<1000ppm or <0.1%
9	Dibutyl phthalate (DBP)	<1000ppm or <0.1%
10	Diisobutyl phthalate (DIBP)	<1000ppm or <0.1%

More environmental information can be found at these links:

- JOHANSON DIELECTRICS** web page URL:
<https://www.johansondielectrics.com/responsibility>
- European Commission** web page URL:
http://ec.europa.eu/environment/waste/rohs_eee/index_en.htm

John Howard
Specification Review Technician
October 11, 2021