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RoHS-5 and Johanson MLCCs

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The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations ("The RoHS Directive") limits the use of six substances within the structure of the end-user electrical and electronic equipment. These six substances consist of lead, cadmium, mercury, hexavalent chromium, polybrominated biphenyl (PBB) and polybrominated diphenyl ether (PBDE) flame retardants and known to be harmful to human health and the environment. One of the major concerns of the manufacturers in the electronics industry facing is the application of lead in the production of components and circuit board assemblies.

The RoHS Directive covers the equipment used for servers, storage, storage array, and telecommunications infrastructure (switching, routers and gateways) but also exempts the use lead in solder (the limits for the other 5 substances must still be in compliance). This exemption has been introduced to the industry to allow lead in solders for professional, high reliability applications where efficient lead-free substitutes have not been identified. This category is informally referred as RoHS-5 by the telecommunication industry and same component manufacturers.

With the introduction of RoHS-5 concept, the original RoHS Directives that control 6 substances is started to be referred as RoHS-6 in everyday practice.

Johanson Dielectrics multilayer capacitors have 100% Tin termination (V termination code in the part number), could be either RoHS Compliant (RoHS-6) or RoHS Non-Compliant. Since there isn't any lead content in the termination, RoHS-5 exemptions do not apply.

Johanson Dielectrics ceramic capacitors that could be considered as RoHS-5 are the chips that have Lead (Pb) content in their terminations like SnPb termination (T code) or Solder dip (W code). There parts would be RoHS-5 Compliant to be used in servers, storage, storage array, and telecommunications infrastructure (switching, routers and gateways) applications.