

RoHS Definition

The acronym RoHS stands for Restriction of Hazardous Substances.

According to RoHS 2011/65/EU Directive, article 4.1/Annex II, a product is defined as RoHS-compliant if the elements listed below in the components of a finished product and, separately, in the material present in a final electrical or electronic product do not exceed the concentration levels listed below. However, article 4.6 of the Directive, allows exceptions, too, depending on the application categories.

<u>Elements</u>	<u>Symbol</u>	<u>Weight</u>	<u>Level</u>
■ Lead	Pb	0.1%	1000 ppm ^(a)
■ Mercury	Hg	0.1%	1000 ppm
■ Cadmium	Cd	0.01%	100 ppm
■ Hexavalent Chromium	Cr6+	0.1%	1000 ppm
■ Polybrominated Biphenyls	PBB	0.1%	1000 ppm
■ Polybrominated Diphenyl Ethers	PBDE	0.1%	1000 ppm

Note

(a) ppm: part per million

RoHS Compliance Table

Product Applications	Product models	RoHS Compliant						Comments
		Pb	Hg	Cd	CR6+	PBB	PBDE	
COMMERCIAL	SRO, GRClok, GXClok, LNRCllok, StarLPRO, GNSSource, GPSReference, RMO, LCR	Yes	Yes	Yes	Yes	Yes	Yes	•Fully compliant
COMMERCIAL	LPFRS, FemtoStepper	Yes ⁽¹⁾	Yes	Yes	Yes	Yes	Yes	<ul style="list-style-type: none"> •⁽¹⁾ Compliant taking into account the NIE exemption (see Note 1) • Pb-free soldering is planned in the future, under condition of acceptable reliability data
MILITARY	MIL models	No	Yes	Yes	No	Yes	Yes	•Not planned (see Note 2)
SPACE	Space models	No	Yes	Yes	No	Yes	Yes	•Not planned (see Note 2)

➤ **Note 1:** RoHS Directive 2011/65/EU, article 4.6/Annex III, allows exemptions of Pb free soldering for specific applications such as telecom, including "network infrastructure equipment for switching, signalling, transmission, and network management for telecommunications".

➤ **Note 2:** SpectraTime products are qualified on many military, telecom or space programs. Switching to lead free soldering is not possible for reliability reasons in many areas of this particular technology.