

# 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 <sup>(a)</sup>
■ 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 <sup>(1)</sup>	Yes	Yes	Yes	Yes	Yes	<ul style="list-style-type: none"> <li>•<sup>(1)</sup> Compliant taking into account the NIE exemption (see <a href="#">Note 1</a>)</li> <li>• Pb-free soldering is planned in the future, under condition of acceptable reliability data</li> </ul>
MILITARY	MIL models	No	Yes	Yes	No	Yes	Yes	•Not planned ( <a href="#">see Note 2</a> )
SPACE	Space models	No	Yes	Yes	No	Yes	Yes	•Not planned ( <a href="#">see Note 2</a> )

➤ [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.