



RoHS (Restriction of Hazardous Substances)

Certificate of Compliance

MKS Instruments, Inc. hereby certifies that the products listed in the attached table are compliant with the European Union’s RoHS directive 2011/65/EU (including Delegated Directive 2015/863 effective 22 July 2021) regarding the restriction of the use of certain hazardous substances in electrical and electronic equipment. The products listed below are compliant to RoHS requirements for concentration limitations, by weight of homogeneous material, of the ten substances shown on the following page.

<u>Product</u>	<u>RoHS Compliant Part Number</u>
Laser Diode Driver, Pulsed, 5A, 20V, USB & GPIB, 120 VAC	LDP3830-120V
Laser Diode Driver, Pulsed, 5A, 20V, USB & GPIB, 220 VAC	LDP3830-220V
Laser Pulse Board, LDP-3830 Driver	LPB386
Cable, Pulsed Driver to Pulse Board, 5 Amp, 17W2 Male to 17W2 Male	CC385

The above thresholds are not in place for any legally allowable exemptions per Annex III of the aforementioned directive. If such exemptions are in use, they are noted on the attached table. If no exemptions are in use, then no further information is provided.

All information provided in this Certificate of Compliance is accurate to MKS’ knowledge as of the date of this certification. This confirmation is made based our internal engineering risk analysis of the individual items possibly being present along with the best technical information made available to MKS from its material suppliers.



Eugen Kuntz
 General Manager
 Instruments

_____ March 30, 2020
Date

LIST OF SUBSTANCES BANNED BY ROHS2 – JULY 2021

(Item cannot exceed 0.1% of homogeneous material – except as noted)

- Lead (Pb)
- Mercury (Hg)
- Cadmium (Cd) – 0.01% limit
- Hexavalent chromium (Cr6+)
- Polybrominated biphenyls (PBB)
- Polybrominated diphenyl ether (PBDE)
- Diisobutyl phthalate (DIBP)
- Bis (2-ethylhexyl) phthalate (DEHP)
- Butyl benzyl phthalate (BBP)
- Dibutylphthalate (DBP)

MKS RoHS2 PRODUCT EXEMPTION LISTING

MKS Product Number	MKS Product Description	Annex III Exemption #	Annex III Exemption Description
LDP-3830-120V	Laser Diode Driver, Pulsed, 5A, 20V, USB & GPIB, 120 VAC	6(c)	Copper alloy containing up to 4 % lead by weight
		7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)
		7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound
		15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages
LDP-3830-220V	Laser Diode Driver, Pulsed, 5A, 20V, USB & GPIB, 220 VAC	6(c)	Copper alloy containing up to 4 % lead by weight
		7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)
		7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices,

			or in a glass or ceramic matrix compound
		15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages
LPB386	Laser Pulse Board, LDP-3830 Driver	6(c)	Copper alloy containing up to 4 % lead by weight
		7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)
		7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound
		15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages
CC385	Cable, Pulsed Driver to Pulse Board, 5 Amp, 17W2 Male to 17W2 Male	6(c)	Copper alloy containing up to 4 % lead by weight