

Gerbrunn, April 15th 2020

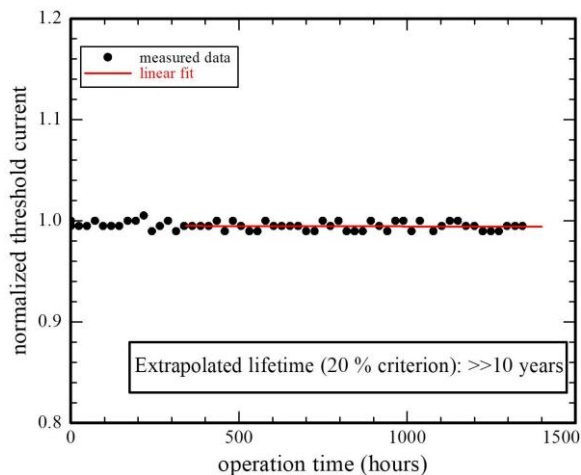
nanoplus GmbH - Oberer Kirschberg 4 - D-97218 Gerbrunn

Dear Sir or Madam,

This is to certify the following properties for our devices:

Accelerated aging (lifetime test)

Our devices are in close compliance with e.g. Telcordia GR-468, Sec 5-18.
Warranted Lifetime >8,000h.



Temperature cycling

Our devices are in close compliance with e.g. Telcordia GR-468, Sec 5-20,
Mil-STD-883 Method 1010, IEC 60068-2-14.

Low temperature storage

Our devices are in close compliance with e.g. Telcordia GR-468 core section 5.20.,
Mil-STD-883 Method 1010, IEC 60068-2-1.

High temperature storage

Our devices are in close compliance with e.g. Telcordia TR-NWT-468,
IEC 60068-2-2.

Damp heat

Our devices are in close compliance with e.g. Mil-STD-202 method 103,
IEC 60068-2-3.

Bankverbindung:
Sparkasse Mainfranken Würzburg
Kto.-Nr.: 750 059
BLZ: 790 500 00
S.W.I.F.T.-address: BYLA DE MM
IBAN: DE 917905 0000 0000 750059



Sitz: Gerbrunn, Amtsgericht Würzburg HR B 6473
Geschäftsführer: Dr. Johannes Koeth
USt.-Id-Nr.: DE 197 235 972
Steuer-Nr. 257/133/10002
Zoll-Nr.: 46 14 712
DUNS Nr.: 315982442

Vibration

Our devices are in close compliance with e.g. Mil-STD-883 method 2007 Condition A, Telcordia GR-468-CORE condition A, IEC 60068-2-64, IEC 60068-2-6.

Mechanical Shock

Our devices are in close compliance with e.g. Mil-STD-883 Method 2002 condition B, IEC 60068-2-27.

Thermal Shock

Our devices are in close compliance with e.g. Mil-STD-883 Method 1011, Condition A. Only applies for sealed packages.

Solderability

Methods used like Mil-STD-883 Method 2003.7 do not apply for our devices. Our devices can be soldered using 280°C as temperature for the soldering-iron, and hold the iron to the pins for less than 3 sec to solder a wire to the pins.

Internal moisture

A sealing test according to Mil-STD 883 method 1014.12 is done for every laser that is sealed.

ESD threshold

Methods used like e.g. Telcordia GR-468 section 5.22 do not apply for our devices. Our lasers have to be protected from ESD in any case.

Bond Pull Test

Our devices are in close compliance with e.g. Mil-STD-883 method 2011 TC C.

Side Metal Shear Test

Our devices are in close compliance with e.g. Mil-STD-883 method 2019.

RoHS

Our devices manufactured after January 1st 2017 comply with the requirements of the EU Directives 2011/65/EU (08 June 2011) including Delegated Directive (EU) 2015/863 (31 March 2015) and 2003/11/EC (06 February 2003) on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

This confirmation is based on the present state of knowledge and relies on the confirmations we received from our suppliers. Please note that this confirmation does not apply to products which we manufacture RoHS non-compliant at a customer's specific request.

Best regards,

nanoplus GmbH



Dr. Johannes Koeth
Chief Executive Officer

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