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CHECKED IN

	Date:	01-11-2018
	Program & PCB Name:	NanoPower BP8 Heater
	Part Number:	102477
	Revision:	2
	PCB Designer:	Mogens Groth Nicolaisen
	PCB Specifications:	
	Base Specification:	IPC-6013-D class 2+ (Class 3 regarding requirements for Annular ring breakout, Surface and copper plating, and Copper wrap plating)
	Material:	Flexible Metal-Clad Dielectrics IPC-4204A Dupont Pyralux
	Construction:	Two layer flex
	Layer count:	2
	Stackup detailes:	See Stack-up sheet
	Tolerances:	Thickness: +/- 10%, Outline: +/- 10%, Cluster dimensions: +/- 10%
	Special requirements:	
☑	Notation Top	White low-outgassing epoxy
☑	Notation Bottom	White low-outgassing epoxy
☐	Nickel/Hard Gold edge plating:	See Gold plated mechanical layer in files included below.
☐	Vias in pad has to be filled and capped	All drilled vias
☐	All Microvia has to be with copper filling.	Unless otherwise agreed
☑	Surface finish:	Hot Oil reflow SnPb - unless otherwise agreed
☐	Nickel/Hard gold contacts:	See Gold plated mechanical layer in files included below.
☐	Panelization	Use Gomspace standard cluster template - Choose Cluster 1 or Cluster 2
☑	Minimum isolation distance:	200um
☐	Countersunk holes	All 2.5 mm holes countersunk by 90 degrees to 5.5mm opening from the buttom layer.
☑	PCB manufacturer logo - **Not allowed**	unless otherwise agreed
☑	PCB Manufacturer serial number	See specified area in mechanical layer 7
☐	Stencil data required	Stencil data shall be based on compensated production files
☑	Electrically test to be done.	In accordance with IPC-9552, test level B
☐	Peelable Solder Mask:	
☑	Impedance controlled nets	Top layer 150 ohm +/- 5%
☑	Tolerances	Thickness: +/- 10%, Outline: +/- 10%, Cluster dimensions: +/- 10%

Files included in data package

	File Description	File Name	Format	Comments
☑	Read-Me File	ReadMe.pdf	ACROBAT	This Document
☑	Outline (Mechanical 4)	Flex_heater_default.GM4	Gerber	Board Outline
☑	CID+LOGO (Mechanical 6)	Flex_heater_default.GM6	Gerber	Notation Top - white low-outgassing epoxy
☑	Top Paste	Flex_heater_default.GTP	Gerber	Top Paste
☑	Top cover layer	Flex_heater_default.GCT2	Gerber	Top Coverlay
☑	Top side flex	Flex_heater_default.GTL	Gerber	L1 in stackup
☑	Bottom side flex	Flex_heater_default.GBL	Gerber	L2 in stackup
☑	Bottom cover layer	Flex_heater_default.GCB2	Gerber	Bottom Coverlay
☑	Stackup details	Stack-up.pdf	ACROBAT	
☑	ID-text (Mechanical 7)	Flex_heater_default.GM7	Gerber	Manufacturer serial no. notation Bottom - white low-outgassing epoxy
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All files are in millimeters and showed from top view.
Format: 4:3
Any changes/production optimizations shall be approved by GomSpace.