

# Oak P V01.20      July 2009

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## 1. Overview, Statistics

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### 1.1. PCB

PCB type	rigid
Insulator material	FR4
Board Size Extents	45 X 12 mm (final size)
Layer Count	2
Board thickness	1.6mm
Copper thickness	35µm
Hole Count	40
Solder mask	on both sides
Silkscreen	no
Surface	HAL Pb-free

### 1.2. Statistics

Through Holes	53
Minimum line width	0.15mm
Smallest drill diameter	0.3mm
Smallest annular ring	0.15mm
Minimum spacing	0.15mm



### 1.3. Assembly

Assembly sides:	SMD components on top side
SMD component count	10
THT component count	–
Pin Count	114

## 2. Layer Stackup

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### 2.1. Sequence of the Gerber Files

Please stack the layers in the order given below:

File name	Description	Format
SoldermaskTop.gdo	<i>Solder mask (component side)</i>	RS274-X
EtchLayer1Top.gdo	top layer / component side	
EtchLayer2Bottom.gdo	bottom layer / solder side	RS274-X
SoldermaskBottom.gdo	<i>Solder mask (solder side)</i>	

### 2.2. Additional Files

SolderPasteTop.gdo	Solder Paste (component side)	RS274-X
Mechanics.gdo	Mechanical dimensions	RS274-X
ThruHoleNonPlated.ncd	Drill coordinates (plated)	NC drill
ThruHolePlated.ncd	Drill coordinates (non-plated)	NC drill
ContourPlated.ncd	Milling coordinates (non-plated)	NC drill

### 2.3. Layer thickness

The total thickness of the board must be 1.7mm±0.1mm

Proposed thicknesses:

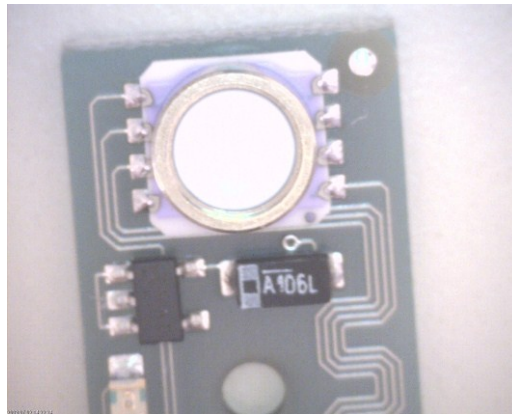
	Description	Material	Thickness
	Top Solder Mask		
1	Top Layer	Cu	35u
		Core	1600u
4	Bottom Layer	Cu	35u
	Bottom Solder Mask		
Overall thickness			1.7mm



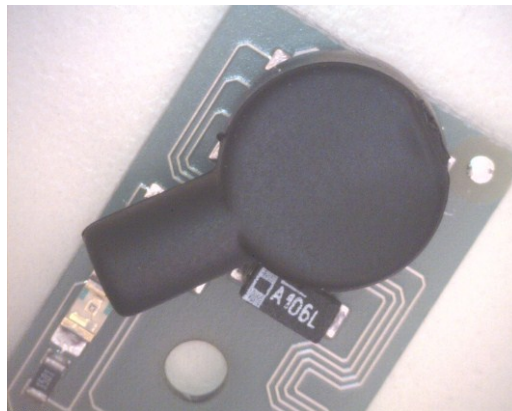
### 3. Sensor Protection Cap Mounting Instructions

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After the soldering process, the sensor protection cap has to be mounted according to the following images. There is no need for a tool.



**Figure 1 Oak G without protection cap**



**Figure 2 Oak G with mounted cap**



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