
290052-004 XTMCU02

PCB Manufacturing Documentation

Cortex M7 based MCU card for use with X4 radar modules

By Novelda AS
2018-03-21



Document description

This document describes the manufacturing specifications and documentation of the current PCB project.

Contents of this document

- PCB Specification
- Stackup definition
- Drill drawing



PCB Specification

Category	Property	Value	Comments
Mechanical Data	No. of Layers	6	
	Board width mm	33.2	
	Board length mm	27.0	
Material Data	Final Cu thickness external layers um	40	min 33.4
	Final Cu thickness internal layers um	40	min 33.4
Soldermask	Solder resist top	Yes	
	Solder resist bottom	Yes	
	Solder resist color	Blue	
Prints / masks	Silkscreen top	Yes	
	Silkscreen bottom	Yes	
	Silkscreen color	White	
	Pb. free label	Yes	
Finish	Hot Air Solder Level (HASL), Lead-free	No	
	Electroless nickel immersion gold (ENIG)	Yes	
Gerber / Drill format	Unit	mil	
	Format	2:4 (0.1mil)	
Clearance	External layers um	100	
	Internal layers um	100	
Tolerances	PCB Dimensions / outline mm	+0.2 / -0.1	
Vias	Filled	No	
	Capped	No	

Layer Stack Legend

Material	Layer	Thickness	Dielectric Material	Type	Gerber
	Top Paste			Paste Mask	GTP
	Top Overlay			Legend	GTO
Surface Material	Top Solder	0.010mm(0.4mil)	Solder Resist	Solder Mask	GTS
Copper	Top Layer	0.035mm(1.4mil)		Signal	GTL
Prepreg		0.120mm(4.7mil)	FR4 2116 Prepreg	Dielectric	
Copper	Inner1	0.035mm(1.4mil)		Internal Plane	GP1
Core		0.130mm(5.1mil)	FR4 Core	Dielectric	
Copper	Inner2	0.035mm(1.4mil)		Internal Plane	GP2
Prepreg		0.900mm(35.4mil)	FR4 Prepreg	Dielectric	
Copper	Inner3	0.035mm(1.4mil)		Signal	G1
Core		0.130mm(5.1mil)	FR4 Core	Dielectric	
Copper	Inner4	0.035mm(1.4mil)		Signal	G2
Prepreg		0.120mm(4.7mil)	FR4 2116 Prepreg	Dielectric	
Copper	Bottom Layer	0.035mm(1.4mil)		Signal	GBL
Surface Material	Bottom Solder	0.010mm(0.4mil)	Solder Resist	Solder Mask	GBS
	Bottom Overlay			Legend	GBO
	Bottom Paste			Paste Mask	GBP
Total thickness: 1.630mm(64.2mil)					

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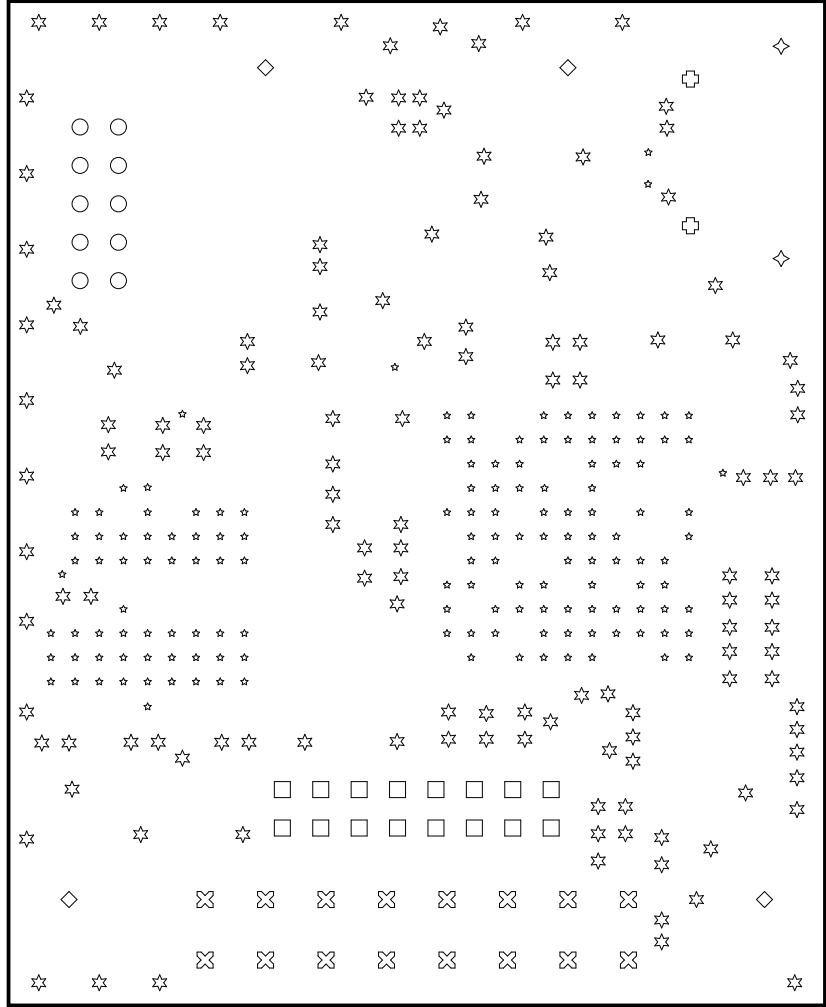
Gjerdrums vei 8, NO-0484 Oslo, Norway

Size: A3	Scale: 1:1	Sheet: 1 of 1
ItemNo:	290052-004	
Date:	2018-03-21	
Project:	XTMCU02	
Title:	PCB Layer Stack up	
Classification:	Public	




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Drill Drawing View (Scale 4:1)



Drill Table

Symbol	Count	Hole Size	Plated	Hole Tolerance
☆	146	0.20mm	Plated	None
☆	136	0.30mm	Plated	None
□	16	0.60mm	Plated	None
⊞	2	0.65mm	Plated	None
○	10	0.74mm	Plated	None
◇	2	0.82mm	Plated	None
⊞	16	0.86mm	Plated	None
◇	4	2.50mm	Non-Plated	None
	332 Total			

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Size: A3	Scale: 1:1	Sheet: 1 of 1	
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