290047-004 X4SIP02

PCB Manufacturing Documentation

X4 Radar Module - System in Package with only X4 and related components

By Novelda AS
2018–03–19

Document description

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

Contents of this document

- Notes to PCB manufacturer
- PCB Specification
- Stackup definition

Notes to PCB manufacturer

There is no room for fiducial marks on this tiny PCB. Please add fiducial marks on the panel during panelizing process.

PCB Specification

Category	Property	Value	Comments
Mechanical Data	Board width mm	16	
	Board length mm	16	
Material Data	Final Cu thickness external layers um	40	min 33.4
	Final Cu thickness internal layers um	17	min 11.4
Soldermask	Solder resist top	Yes	
	Solder resist bottom	Yes	
	Solder resist color	Blue	
Prints / masks	Silkscreen top	Yes	
	Silkscreen bottom	No	
	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	

16,00

16,00
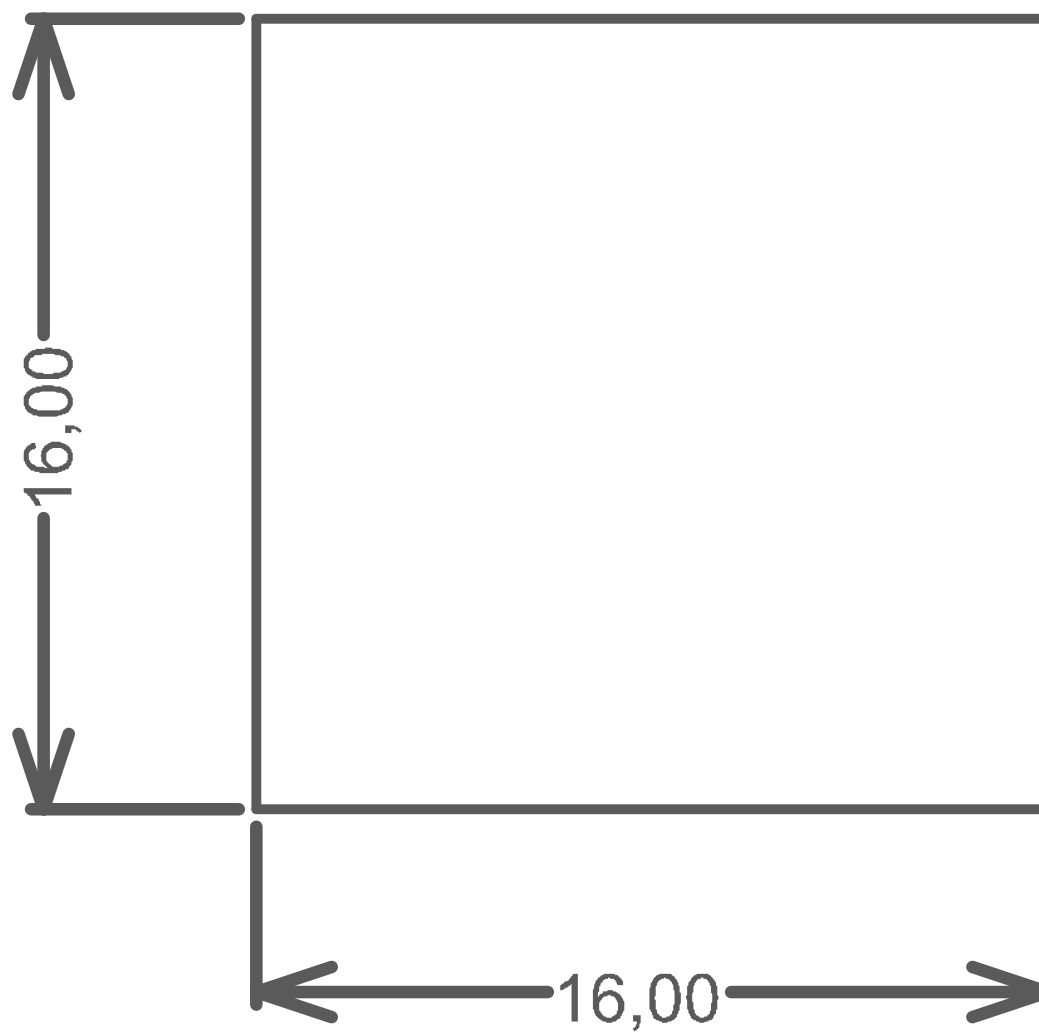
ItemNo	290047-004
Date	2018-03-19
Project	X4SIP02
Layer	Top Dimensions
Classification	Public
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Layer Stack Legend

Laser drilled micro via

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	0.036mm(1.4mil)		Signal	GTL
Prepreg		*0.079mm(3.1mil)*	*FR408 1080 Prepreg*	*Dielectric*	
Copper	Inner1	0.017mm(0.7mil)		Signal	G1
Prepreg		*0.079mm(3.1mil)*	*FR408 1080 Prepreg*	*Dielectric*	
Copper	Inner2	0.017mm(0.7mil)		Signal	G2
Core		*0.356mm(14.0mil)*	*FR408 3x 2116 Core*	*Dielectric*	
Copper	Inner3	0.017mm(0.7mil)		Signal	G3
Prepreg		*0.079mm(3.1mil)*	*FR408 1080 Prepreg*	*Dielectric*	
Copper	Inner4	0.017mm(0.7mil)		Signal	G4
Prepreg		*0.079mm(3.1mil)*	*FR408 1080 Prepreg*	*Dielectric*	
Copper	Bottom Layer	0.036mm(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: 0.831mm(32.7mil)

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Size: A3	Scale: 1:1	Sheet: 1 of 1
ItemNo:	**290047-004**	
Date:	**2018-03-19**	
Project:	**X4SIP02**	
Title:	**PCB Layer Stack up**	
Classification:	**Public**	

XETHRU
BY NOVELDA