



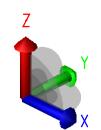
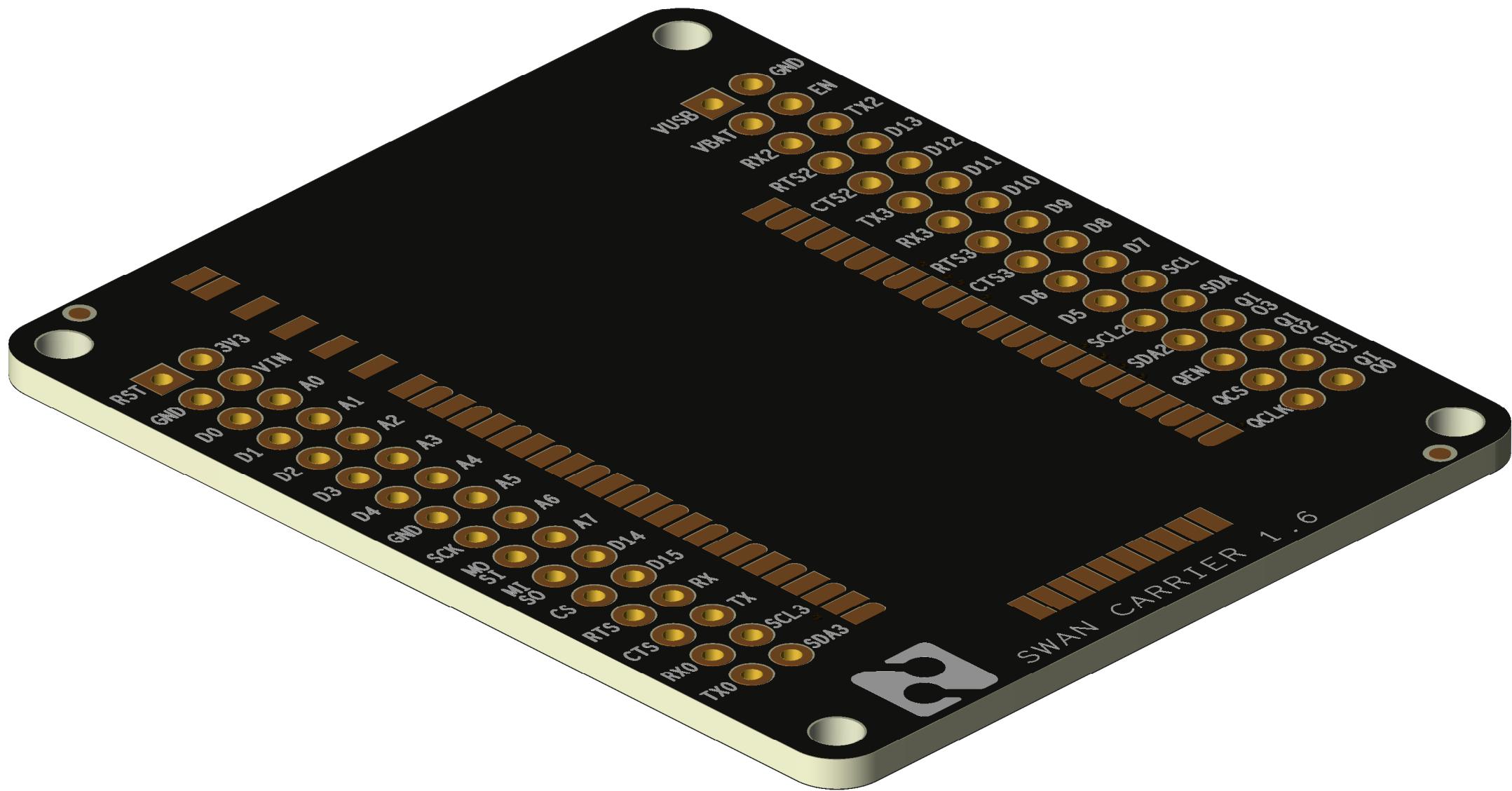
## PCB DOCUMENTATION

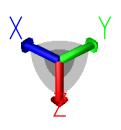
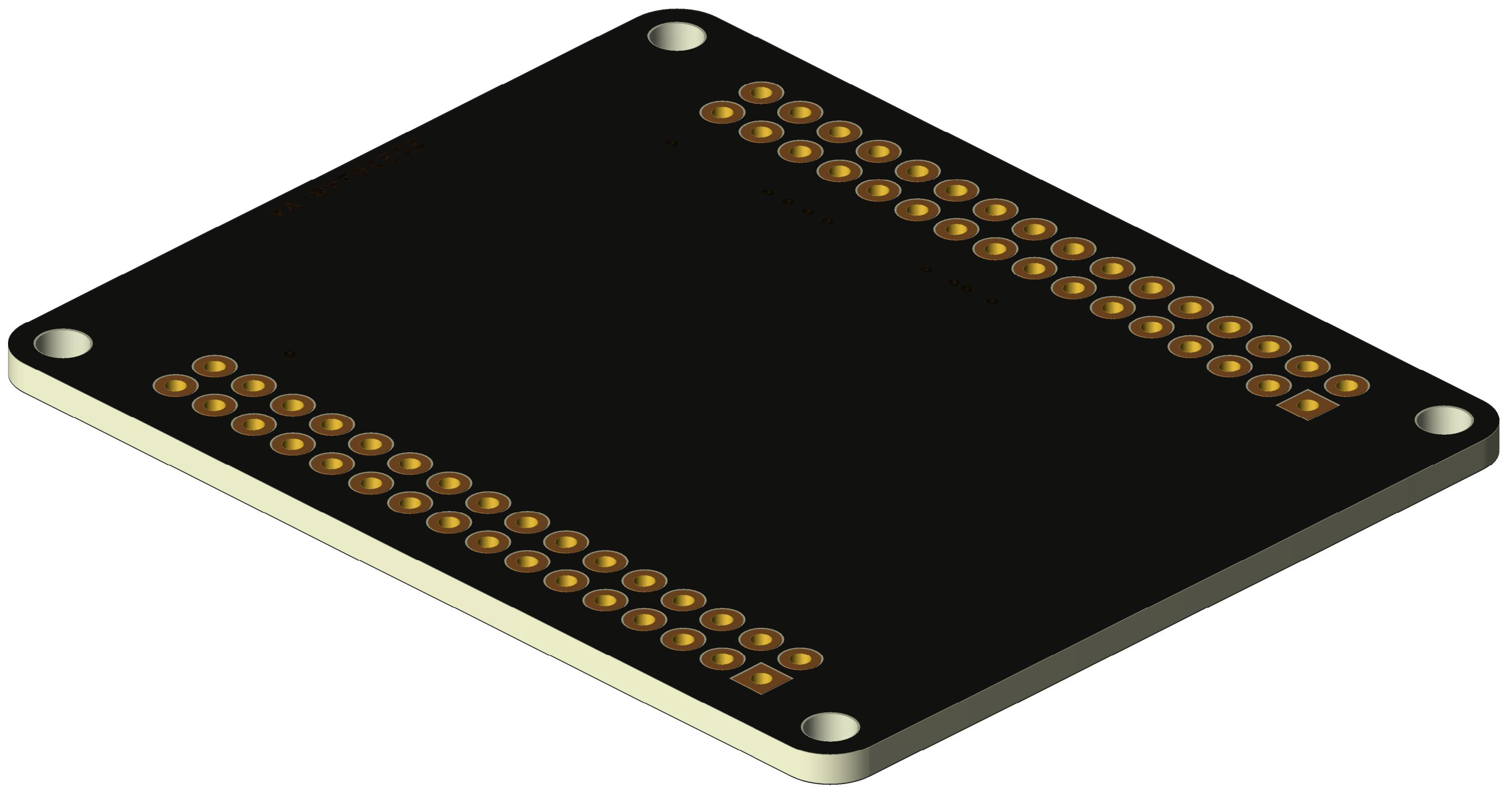
CUSTOMER: BLUES

PROJECT: SWAN-C\_V4

FAE CODE: 2021-0248

DATE: 13/09/2021







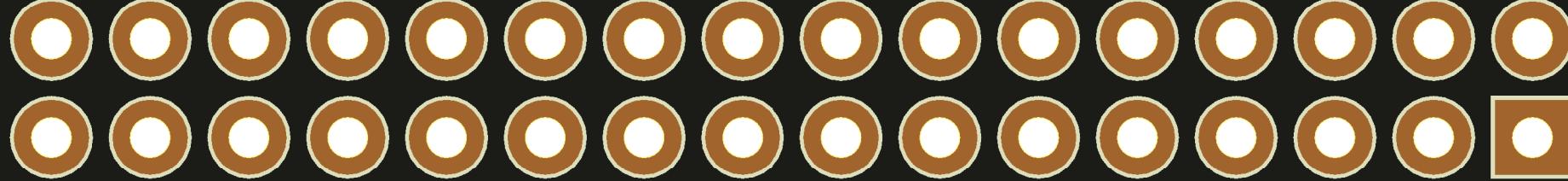
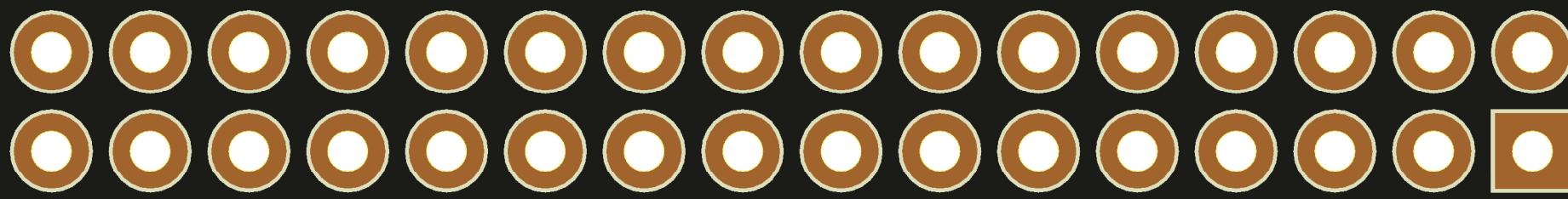
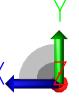
The image shows a row of 20 circular pads on a black background, representing the pins of a microcontroller. The pads are arranged in two columns of ten. The left column contains pads labeled RST, GND, D0, D1, D2, D3, D4, GND, SCK, M0, SI, MI, SO, CS, RTS, CTS, RX0, TX0, and SDA3. The right column contains pads labeled 3V3, VIN, A0, A1, A2, A3, A4, A5, A6, A7, D14, D15, TX, SCL3, and SDA3. The first pad on the far left is highlighted with a yellow border.

A decorative horizontal border consisting of a repeating pattern of brown rectangles with white borders. The pattern is composed of two types of rectangles: standard vertical ones and arched ones. The arched rectangles are positioned at regular intervals along the border.

The image shows a pinout diagram for the QCLK module. It consists of two rows of 12 pins each. The top row contains labels: GND, EN, TX2, D13, D12, D11, D10, D9, D8, D7, SCL, SDA, Q1, Q3, Q2, Q1, Q1, and Q0. The bottom row contains unlabeled circular pads. A vertical column of four pads on the far left is labeled VUSB, VBAT, RTS2, and CTS2 respectively.

SWAN CARRIER 1 . 6

20210248 - v4

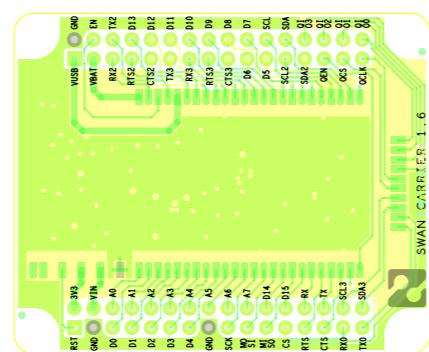


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TOP and BOTTOM thickness layer shown in the image above contains +20um (from IPC-A-600 Class 2) of plating

IMPEDANCE CONTROL TABLE

MANUFACTURING SPECIFICATIONS

BOARD SIZE (XxYxZ)	55x45x1.6mm	IPC-6012 - IPC-A-600	CLASS 2
BOARD TOLERANCE (X Y Z)	+/-0.2   +/-0.2   +/-10%	E-TESTING	YES
NO. OF LAYERS	2	UL-MARKING	YES
USE COPPER OUTSIDE	18um	MICROVIA (hole < 100um)	NO
USE COPPER INSIDE	-	BLIND VIA	NO
NISH	HAL	BURIED VIA	NO
OLDER COLOR	MATTE BLACK	VIA FILL/VIA IN PAD	NO
LKSCREEN COLOR	WHITE	MIN. VIA SIZE	0.254mm
ELECTRIC MATERIAL	FR4-TG150	MIN. TRACE SPACING	0.2mm
IMPEDANCE CONTROL	NO	OUTER LAYER MIN. TRACE WIDTH	0.2mm
I	175V	INNER LAYER MIN. TRACE WIDTH	-



Project name \_\_\_\_\_ Board \_\_\_\_\_

name \_\_\_\_\_

SWAN SWAN CARRIER

SWAN CARRIER

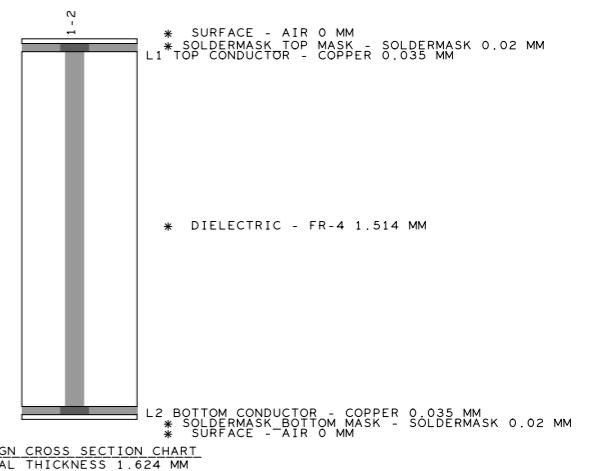
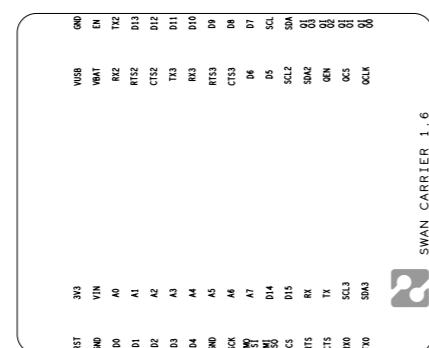
Designer G. Boschini Approved M.Gregis

ed M.Gregis

via C. Battisti 136, 24025, Gazzaniga (Bg), Italy  
e-mail: info@fae.technology Tel: +39 035738130

Rev.	Size	Page	Scale	Date	
4		A3	1:1		13/09/2021

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TOP and BOTTOM thickness layer shown in the image above contains +20um (from IPC-A-600 Class 2) of plating

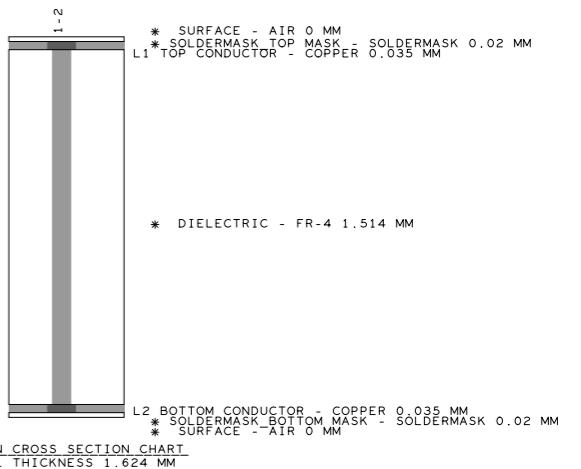
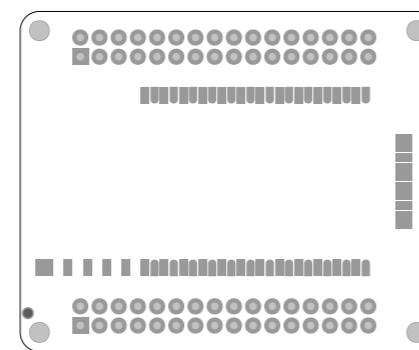
#### IMPEDANCE CONTROL TABLE

LAYER	TRACE [MM]	SPACING [MM]	IMPEDANCE SINGLE-ENDED	IMPEDANCE DIFFERENTIAL	TOLLERANCE

#### MANUFACTURING SPECIFICATIONS

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BOARD TOLLERANCE (X Y Z)	+/-0.2   +/-0.2   +/-10%	E-TESTING	YES
NO.O LAYERS	2	UL-MARKING	YES
BASE COPPER OUTSIDE	18um	MICROVIA (hole < 100um)	NO
BASE COPPER INSIDE	-	BLIND VIA	NO
FINISH	HAL	BURIED VIA	NO
SOLDER COLOR	MATTE BLACK	VIA FILL/VIA IN PAD	NO
SILKSCREEN COLOR	WHITE	MIN. VIA SIZE	0.254mm
DIELECTRIC MATERIAL	FR4-TG150	MIN. TRACE SPACING	0.2mm
IMPEDANCE CONTROL	NO	OUTER LAYER MIN. TRACE WIDTH	0.2mm
CTI	175V	INNER LAYER MIN. TRACE WIDTH	-

	Project name		Board name
	SWAN		SWAN CARRIER
	Designer G. Boschini		Approved M.Gregis
	Project Code 2021-0248		Customer BLUES
	Internal Code -		Code -
Via C. Battisti 136, 24025, Gazzaniga (Bg), Italy Mail: info@fae.technology	Rev. 4	Size Page A3	Scale 1:1
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TOP and BOTTOM thickness layer shown in the image above contains +20um (from IPC-A-600 Class 2) of plating

#### IMPEDANCE CONTROL TABLE

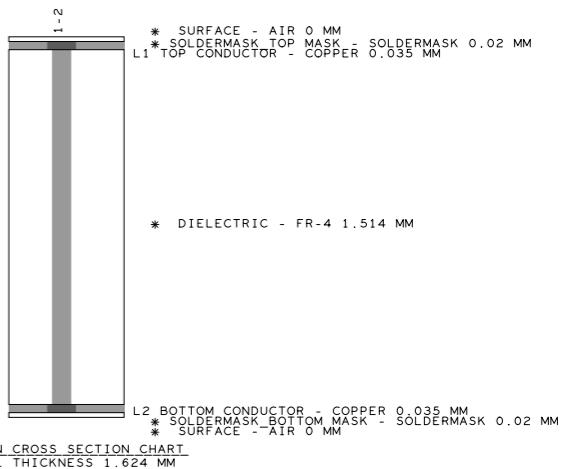
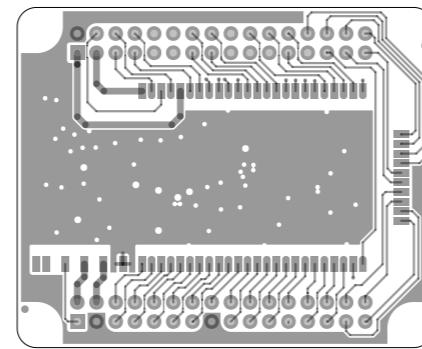
LAYER	TRACE [MM]	SPACING [MM]	IMPEDANCE SINGLE-ENDED	IMPEDANCE DIFFERENTIAL	TOLLERANCE

#### MANUFACTURING SPECIFICATIONS

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NO.O LAYERS	2	UL-MARKING	YES
BASE COPPER OUTSIDE	18um	MICROVIA (hole < 100um)	NO
BASE COPPER INSIDE	-	BLIND VIA	NO
FINISH	HAL	BURIED VIA	NO
SOLDER COLOR	MATTE BLACK	VIA FILL/VIA IN PAD	NO
SILKSCREEN COLOR	WHITE	MIN. VIA SIZE	0.254mm
DIELECTRIC MATERIAL	FR4-TG150	MIN. TRACE SPACING	0.2mm
IMPEDANCE CONTROL	NO	OUTER LAYER MIN. TRACE WIDTH	0.2mm
CTI	175V	INNER LAYER MIN. TRACE WIDTH	-

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	Designer G. Boschin		Approved M.Gregis
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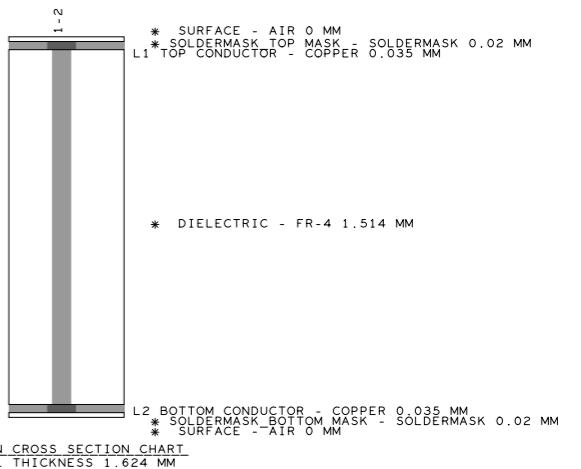
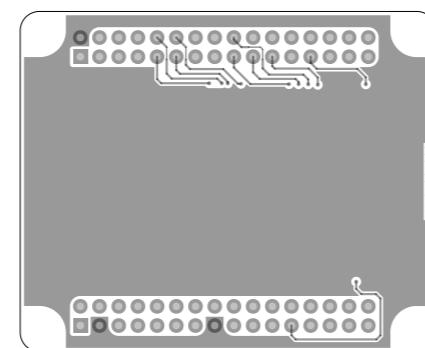
#### IMPEDANCE CONTROL TABLE

LAYER	TRACE [MM]	SPACING [MM]	IMPEDANCE SINGLE-ENDED	IMPEDANCE DIFFERENTIAL	TOLLERANCE

#### MANUFACTURING SPECIFICATIONS

BOARD SIZE (XxYxZ)	55x45x1.6mm	IPC-6012 - IPC-A-600	CLASS 2
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NO. OF LAYERS	2	UL-MARKING	YES
BASE COPPER OUTSIDE	18um	MICROVIA (hole < 100um)	NO
BASE COPPER INSIDE	-	BLIND VIA	NO
FINISH	HAL	BURIED VIA	NO
SOLDER COLOR	MATTE BLACK	VIA FILL/VIA IN PAD	NO
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CTI	175V	INNER LAYER MIN. TRACE WIDTH	-

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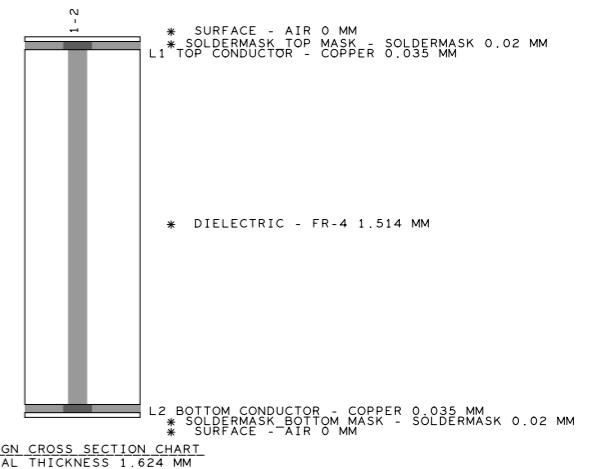
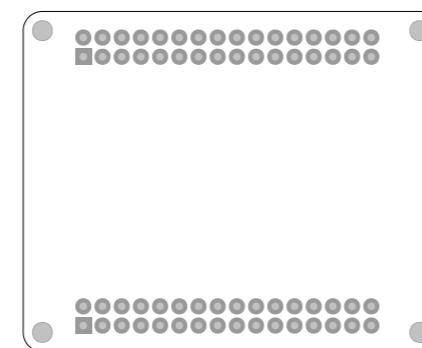
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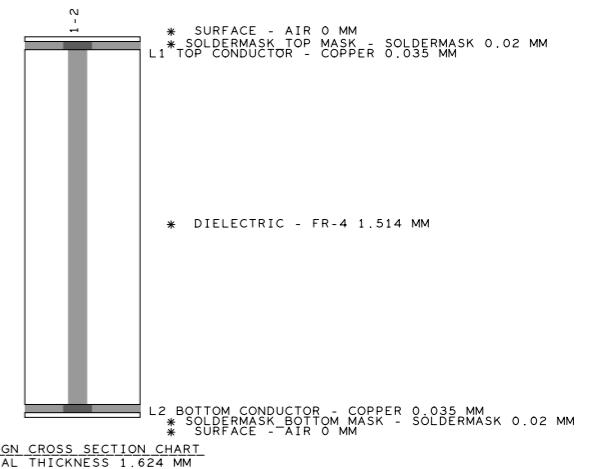
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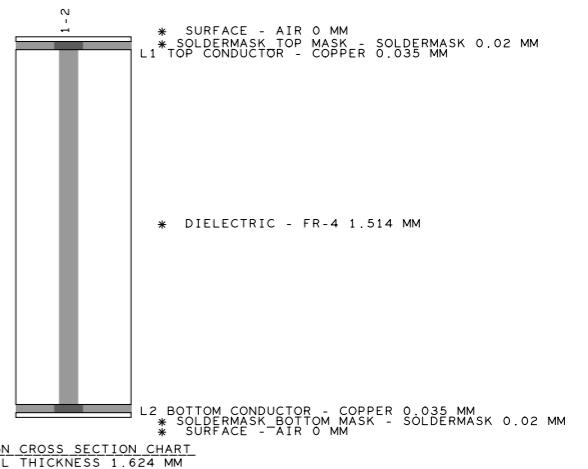
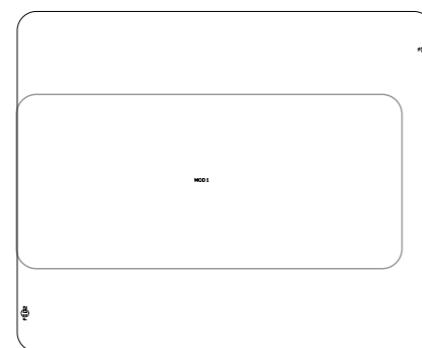
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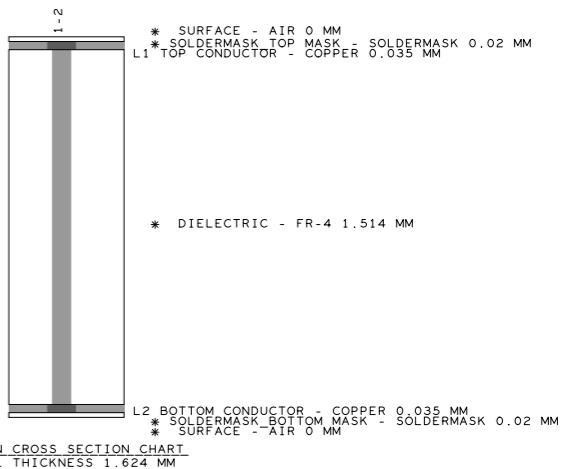
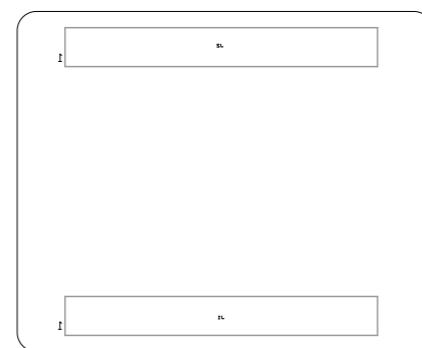
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#### IMPEDANCE CONTROL TABLE

LAYER	TRACE [MM]	SPACING [MM]	IMPEDANCE SINGLE-ENDED	IMPEDANCE DIFFERENTIAL	TOLLERANCE

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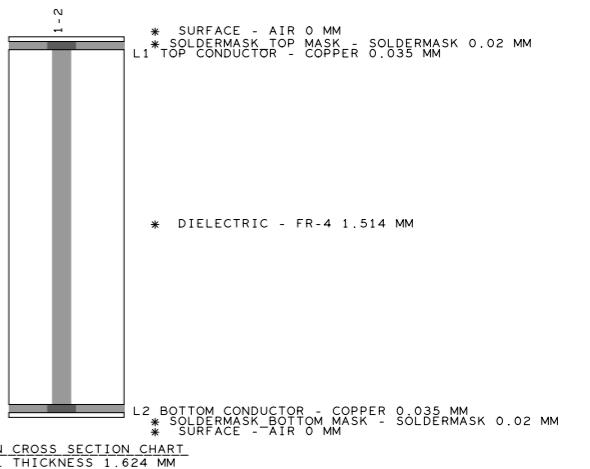
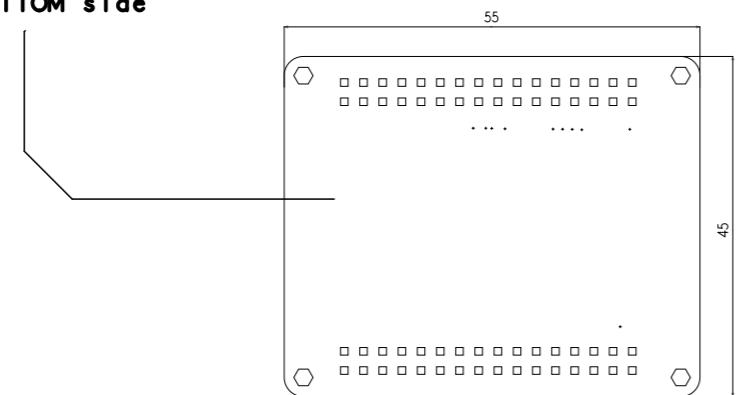
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**DRILL CHART: TOP to BOTTOM**

ALL UNITS ARE IN MILLIMETERS

FIGURE	FINISHED SIZE	TOLERANCE	TYPE	QTY
.	0.254	+0.075/-0.075	PLATED	10
□	1.0	+0.075/-0.075	PLATED	64
○	2.54	+0.075/-0.075	NON-PLATED	4

Put PCB data code and/or manufacturer logo  
on BOTTOM side



TOP and BOTTOM thickness layer shown in the image above contains +20um (from IPC-A-600 Class 2) of plating

## IMPEDANCE CONTROL TABLE

LAYER	TRACE [MM]	SPACING [MM]	IMPEDANCE SINGLE-ENDED	IMPEDANCE DIFFERENTIAL	TOLLERANCE

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BASE COPPER INSIDE	-	BLIND VIA	NO
FINISH	HAL	BURIED VIA	NO
SOLDER COLOR	MATTE BLACK	VIA FILL/VIA IN PAD	NO
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