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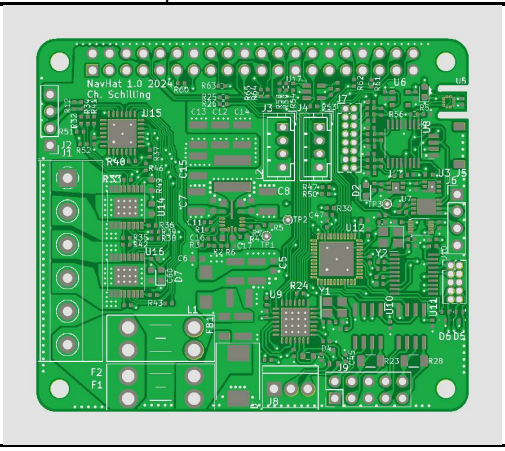
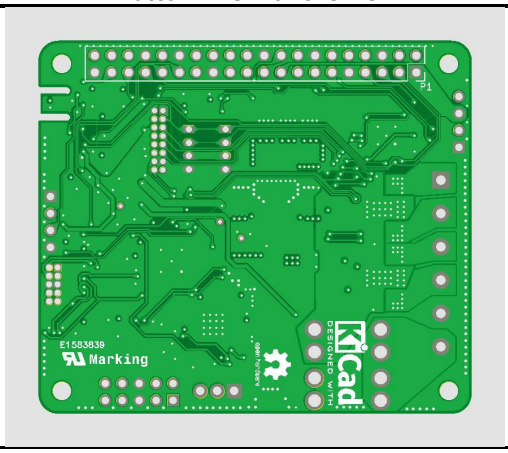
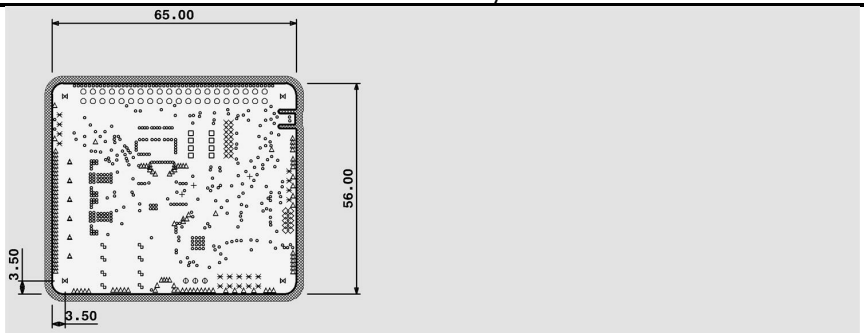
PCB Passport

Order Number: E1583839

PCB name : NavHAT	Purchase reference :	Quantity packed : 10
Article reference :		Packing date : 22-03-2024
Project reference : Navigation HAT		Producer : Eurocircuits Kft.

Top view of the PCB	Bottom view of the PCB
	

Mechanical layer



Layer: E1583839-60

Symbol	Type	Kind	End Dia (mm)	Tool Dia (mm)	Count	+ Tol	- Tol
◦	Via	Drill	0.25	0.35	416	0.10	0.10
△	Via	Drill	0.30	0.40	112	0.10	0.10
+	Plated	Drill	0.50	0.60	3	0.10	0.10
×	Plated	Drill	0.65	0.75	16	0.10	0.10
◇	Plated	Drill	0.75	0.85	10	0.10	0.10
□	Plated	Drill	0.80	0.90	8	0.10	0.10
⨯	Plated	Drill	1.00	1.10	18	0.10	0.10
○	Plated	Drill	1.10	1.20	40	0.10	0.10
⊕	Plated	Drill	1.15	1.25	3	0.10	0.10
△	Plated	Drill	1.30	1.40	6	0.10	0.10
⬔	Plated	Drill	1.80	1.90	8	0.10	0.10

Layer: E1583839-70

Symbol	Type	Kind	End Dia (mm)	Tool Dia (mm)	Count	+ Tol	- Tol
⋈	Unplated	Drill	2.70	2.70	4	0.05	0.05

EURO CIRCUITS

PCB Passport

Order Number: E1583839

Production flow of inner layers (02/03)

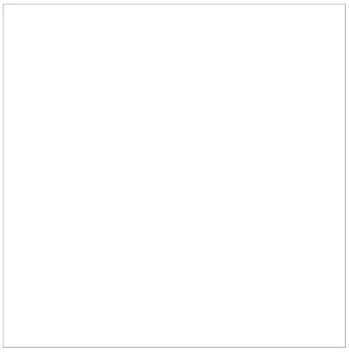
Production Step	End of the process	Used materials/Specified ordervalues	Tolerances/Result
Start of production	28-02-2024	IS 400 0,71 mm 35/35 um https://www.isola-group.com/products/all-printed-circuit-materials/is400/	Pass
Inner layer imaging	28-02-2024	Type of dry resist foil: Ordyl ALPHA340	Pass
Innerlayer etching	28-02-2024	IL TW: 0,125 mm IL TT-TP-PP: 0,125 mm IL AR: 0,125 mm	Pass
Innerlayer optical test	28-02-2024		Pass

Production flow of outer layers

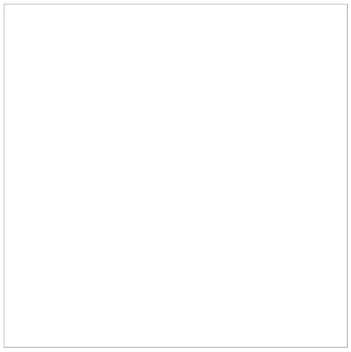
Multilayer pressing	28-02-2024	Prepreg: PREPREG 7628 IS400 (w460x610) https://www.isola-group.com/products/all-printed-circuit-materials/is400/ Thickness of copper foil: 18 um Thickness after pressing: 1,5-1,53 mm	Pass
Drilling	28-02-2024	Smallest finished hole size: 0,15 mm	Pass
Pth	29-02-2024	Black hole	Pass
Outer layer imaging	29-02-2024	Type of dry resist foil: Riston PM250	Pass
Outer layer galvano	29-02-2024	Value of copper thickness in the holes: 20-27 um	Pass (min. 18 um)
Outer layer etching	29-02-2024	OL TW: 0,125 mm OL TT-TP-PP: 0,125 mm OL AR: 0,125 mm	Pass
Solderresist coating	29-02-2024	91584456 IMC5009H Clear HF DI SC (H): CK10 91583543 IMC5009R Green HF DI SC (R): EJ01	Pass
Legend	29-02-2024	Taiyo IJR-4000	Pass
Surface finish	29-02-2024	Leadfree HASL	Pass
Electrical test	29-02-2024		Pass
Mechanical finishing	29-02-2024	Outline milling	Pass (+/-0,2 mm)
Final inspection	22-03-2024		Pass

Assembly		
MPN	**Ref_des**	**Manufacturer**
12101C225KAT2A	C1,C2,C3,C4	AVX
06035C474KAT2A	C5,C6,C9,C10,C59,C60	AVX
885012209073	C7,C8	Wurth Elektronik
GRM155R62A104ME14D	C11,C20,C21,C22,C25,C29, C30,C31,C35,C36,C37,C38, C39,C40,C41,C42,C43,C47, C50,C51,C52,C53,C54,C55, C58,C61,	Murata
GRM32ER61C476KE15L	C12,C13,C14,C15	Murata
CL05C110JB5NNNC	C16,C46,C48	Samsung
CL10A105KO8NNNC	C17	Samsung Electro-Mechanics
CL05A105KO5NNNC	C18,C19,C23,C24,C49	Samsung
04025C103KAT2A	C26,C27,C28,C32,C33,C34	AVX
3.0SMCJ30A	D1	Littelfuse
SD0603S040S0R2	D2,D3,D7	AVX
VCAN16A2-03G-E3-08	D4	Vishay Semiconductor Diodes Division
RCLAMP0582B.TCT	D5,D6	Semtech
3568	F1,F2	Keystone Electronics
BLM31KN121SH1L	FB1	Murata
TB002-500-06BE	J1	CUI
B4B-PH-K-S	J3,J4	JST Sales America Inc.
SM04B-SRSS-TB	J5	JST Sales America Inc.
20021111-00016T4LF	J7	Amphenol
282834-3	J8	TE Connectivity AMP Connectors
10129381-910001BLF	J9	Amphenol
20021111-00010T1LF	J10	Amphenol
74437336010	L1	Wurth Elektronik
74439346047	L2	Wurth Elektronik
RPI Header 40XL	P1	Raspberry Pi
RC0402FR-0722RL	R1,R8,R31	Yageo
MCWR04X1003FTL	R2,R10,R27,R29	Multicomp
RC0402FR-074K99L	R3	Yageo
RC0402FR-0733KL	R4	Yageo
ERJ-2GE0R00X	R5,R57,R58,R60,R62,R64	Panasonic
RC0402FR-0724KL	R6	Yageo
RC0402FR-0715KL	R7,R32,R33,R34,R35,R36, R38,R39,R40,R41,R42,R43, R44,R45,R46,R51,R52,	Yageo
MCWR04X1002FTL	R9,R11,R12,R13,R21,R22, R24,R30,R37,	Multicomp
ERJ2RKF1001X	R14,R15,R16,R17,R18,R19, R47,R50,	Panasonic
ERJ-2RKF4701X	R48,R53,R54	Panasonic
RC0603FR-07750RL	R49	Yageo
MCWR04X4701FTL	R55	Multicomp
LM62460QRPHRQ1	U1	Texas Instruments
TPS7B8133DRVR	U2	Texas Instruments
NCP730BMT330TBG	U3	ON Semiconductor
SN74LVC2G74DCURG4	U4	Texas Instruments
BMP390	U5	Bosch
NCV8164ASN330T1G	U6	ON Semiconductor
MAX31343ETAY+T	U7	Maxim Integrated
ADS1119IPWT	U8	Texas Instruments
MCP25625T-E/ML	U9	Microchip Technology
MAX14787EGSA+	U10,U11	Maxim Integrated
MAX14830ETM+T	U12	Maxim Integrated
MAX3222ECPWR	U13	Texas Instruments
TPS2HB16AQPWPRQ1	U14,U16	Texas Instruments
MCP23017T-E/ML	U15	Microchip Technology
24CW640T-I/OT	U17	Microchip Technology
FC3BAEBDI20.0-T1	Y1	Fox / Abracon

Top SMD view



Bottom SMD view



Production Flow-Assembly			
Production Step	**End of the process**	**Used materials/Specified ordervalues**	**Tolerances/Result**
Start of Production	28/02/2024	BoM:E1583839-A	Pass
Kitting	01/03/2024		Pass
Feeder preparation	14/03/2024		Pass
Final feeder step	20/03/2024		Pass
Pasting TWS - TOP + SPI inspection	20/03/2024		Pass
Pasting Jetter - TOP (All boards)	20/03/2024		Pass
SMD placement (AUTO) - TOP (First board)	20/03/2024		Pass
PixPect PASTE	20/03/2024		Pass
Reflow - TOP (First board)	20/03/2024		Pass
SMD inspection - TOP (First board)	20/03/2024		Pass
X-ray inspection - TOP	20/03/2024		Pass
SMD placement (AUTO) - TOP (All boards)	20/03/2024		Pass
Reflow - TOP (All boards)	20/03/2024		Pass
PixPect remained boards	20/03/2024		Pass
X-ray inspection - TOP	20/03/2024		Pass
SMD inspection - TOP	20/03/2024		Pass
	21/03/2024		Pass
	21/03/2024		Pass
THT Cut (MANUAL)	21/03/2024		Pass
THT (MANUAL) - TOP (First board)	21/03/2024		Pass
THT (MANUAL) - BOT (First board)	21/03/2024		Pass
THT (MANUAL) inspection (First board)	21/03/2024		Pass
THT (MANUAL) - TOP (All boards)	21/03/2024		Pass
THT (MANUAL) - BOT (All boards)	21/03/2024		Pass
THT PixPect	21/03/2024		Pass
Final inspection	21/03/2024		Pass
	21/03/2024		Pass
	21/03/2024		Pass
Breakout & Packing	21/03/2024		Pass
Shipping	21/03/2024		Pass