

Stückliste

Bill of Materials

Bezeichnung / Name : Sensor Hub

11.07.2020

1.1

Nummer Number	Bezeichnung Description	Wert Value	Gehäuse Case	Hersteller Manufacturer	Herstellerbezeichnung Manufacturer's designation	Lieferant Distributor	Bestellnummer Order number	Anzahl Quantity
C1, C3	Unpolarized capacitor	1uF	C_0805_2012Metric_Pad1.15x1.40mm_HandSolder	Kemet	C0805X105K3RAC3316	Mouser	80-C0805X105K3R3316	2
C2, C6, C7, C8	Unpolarized capacitor	100nF	C_0805_2012Metric_Pad1.15x1.40mm_HandSolder	Kemet	C0805C104K5RAC7411	Mouser	80-C0805C104K5RACLR	4
C4, C9	Unpolarized capacitor	10uF	C_0805_2012Metric_Pad1.15x1.40mm_HandSolder	TDK	C2012X7S1E106K125AE	Mouser	810-C2012X7S1E106125	2
C5	Polarized capacitor	100uF	CP_EIA-1608-08_AVX-J_Pad1.25x1.05mm_HandSolder	AVX	F980J107MMAAXE	Mouser	581-F980J107MMAAXE	1
D1, D2	Schottky diode	ZLLS500	D_SOT-23_ANK	Diodes Incorporated	ZLLS500TA	Mouser	522-ZLLS500TA	2
IC1	UVA sensor	VEML6070	OPLGA-6	Vishay Semiconductors	VEML6070	Mouser	78-VEML6070	1
IC2	Step-down battery charger	LT3652EMSE	MSOP-12-1EP_3x4mm_P0.65mm_EP1.65x2.85mm	Analog Devices	LT3652EMSE#PBF	Mouser	584-LT3652EMSE#PBF	1
IC3	4-in-1 sensor, gas, humidity, pressure, temperature	BME680	Bosch_LGA-8_3x3mm_P0.8mm_ClockwisePinNumbering	Bosch Sensortec	BMP680	Mouser	262-BME680	1
IC4	Ambient light sensor	BH1726	WSN-8-1EP_2x2mm_P0.5mm_EP0.9x1.6mm	Rohm Semiconductor	BH1726NUC-E2	Mouser	755-BH1726NUC-E2	1
IC5	Temperature Sensor	MCP9808	MSOP-8_3x3mm_P0.65mm	Microchip	MCP9808T-E/MS	Mouser	579-MCP9808T-E/MS	1
L1	Inductor	68uH	L_2512_6332Metric_Pad1.52x3.35mm_HandSolder	Vishay / Dale	IDC2512ER680M	Mouser	70-IDC2512ER680M	1
M1		ParticleArgon	ParticleArgon	Particle	ARGNKIT	Mouser	465-ARGNKIT	1
R1, R2	Resistor	10k	R_0805_2012Metric_Pad1.15x1.40mm_HandSolder	TE Connectivity	CRGP0805F10K	Mouser	279-CRGP0805F10K	2
R3	Resistor	NTC	PinHeader_1x02_P2.54mm_Vertical	Murata Electronics	NXRT15XH103FA5B040	Mouser	81-NXRT15XH103FA5B040	1
R4, R6	Resistor	220k	R_0805_2012Metric_Pad1.15x1.40mm_HandSolder	TE Connectivity	CRGP0805F220K	Mouser	279-CRGP0805F220K	2
R5	Resistor	47k	R_0805_2012Metric_Pad1.15x1.40mm_HandSolder	TE Connectivity	CRGP0805F47K	Mouser	279-CRGP0805F47K	1
R7	Resistor	0R22	R_0805_2012Metric_Pad1.15x1.40mm_HandSolder	Panasonic	ERJ-U6QJR22V	Mouser	667-ERJ-U6QJR22V	1
R8, R9	Resistor	NB	R_0805_2012Metric_Pad1.15x1.40mm_HandSolder					2
R10, R11, R12, R13, R14, R15	Resistor	3k3	R_0805_2012Metric_Pad1.15x1.40mm_HandSolder	TE Connectivity	CRGP0805F3K3	Mouser	279-CRGP0805F3K3	6
R16	Resistor	270k	R_0805_2012Metric_Pad1.15x1.40mm_HandSolder	TE Connectivity	CRGP0805F270K	Mouser	279-CRGP0805F270K	1
RV1	Potentiometer	10k	Potentiometer_Vishay_TS53YJ_Vertical	Vishay	TS53YJ103MR10	Mouser	72-TS53YJ-10K	1
SW1	1x DIP Switch, Single Pole	ENABLE	SW_DIP_SPSTx01_Slide_Omron_A6S-110x_W8.9mm_P2.54mm	Omron	A6S-1104-PH		653-A6S1104PH	1
X1		WIND	3-2172067-2	TE Connectivity	3-2172067-2	Mouser	571-3-2172067-2	1
X2		SOLAR	2-2172067-2	TE Connectivity	2-2172067-2	Mouser	571-2-2172067-2	1

Legende / Legend:

Nicht bestückt	Not assembled
Durchsteckmontage	Through-Hole technology

Mechanical Components

11.07.2020

1.00

[illegible]

Legende / Legend:

Not assembled

Technische Spezifikationen

Technical Specifications

Bezeichnung / Name: Sensor Hub

11.07.2020

1.1

Bezeichnung <i>Description</i>	Spezifikation <i>Specification</i>
Abmaße <i>Dimensions</i>	72 x 50 mm
Standard <i>Standard</i>	IPC-A-610 E Class 2 oder höher <i>IPC-A-610 E Class 2 or higher</i>
Basismaterial <i>Base material</i>	1,5 mm FR4, 35 µmCu
Stopplack <i>Soldermask</i>	Beidseitig Grün <i>Both sides green</i>
Bestückungsdruck <i>Silkscreen</i>	Keiner <i>None</i>
Oberfläche <i>Surface</i>	Chemisch Nickel-Gold <i>Chemical nickel-gold</i>
Isolierlack <i>Insulation varnish</i>	Nein <i>No</i>
Min. Bohrdurchmesser <i>Min. drill-end diameter</i>	0,2 mm
Min. Leiterbahnbreite <i>Min track size</i>	0,25 mm
Min. Leiterbahnabstand <i>Min track distance</i>	0,2 mm
Kantenmetallisierung <i>Sideplating</i>	Nein <i>No</i>
Freistellung Vias <i>Clearance vias</i>	Bohrlochdurchmesser + max. 0,15 mm gemäß ZVEI <i>Drill hole + max. 0,15 mm regarding ZVEI</i>
Kontur <i>Contour</i>	Gefräst oder geritzt gemäß DIN ISO 2768 mittel <i>Milled or scored according DIN ISO 2768 medium</i>

Bestückung Placement

Bezeichnung / Name: Sensor Hub

11.07.2020

1.1

Nummer Number	Position X Position X	Position Y Position Y	Seite Side	Rotation Rotation
R8	-51.054000	6.604000	0.000000	bottom
R9	-56.372000	6.604000	180.000000	bottom
C1	56.727600	11.955000	90.000000	top
C2	21.844000	15.494000	270.000000	top
C3	50.174400	18.021400	270.000000	top
C4	60.096800	19.723200	0.000000	top
C5	59.928000	21.717000	0.000000	top
C6	17.002000	20.853400	90.000000	top
C7	16.124860	36.051480	270.000000	top
C8	37.068000	18.288000	180.000000	top
C9	55.102000	8.890000	180.000000	top
D1	43.037000	17.615000	0.000000	top
D2	51.038000	21.844000	270.000000	top
IC2	53.463700	15.125800	90.000000	top
IC3	37.068000	21.082000	90.000000	top
IC4	20.200000	20.561400	0.000000	top
IC5	13.117860	37.139380	90.000000	top
L1	46.974000	19.980200	270.000000	top
R1	40.116000	29.426000	0.000000	top
R2	31.997000	31.496000	0.000000	top
R4	56.948800	16.245000	270.000000	top
R5	59.064400	16.245000	90.000000	top
R6	61.121800	16.245000	270.000000	top
R7	54.864000	20.828000	180.000000	top
R10	30.718000	24.130000	0.000000	top
R11	30.727000	19.558000	0.000000	top
R12	40.903000	24.384000	180.000000	top
R13	44.196000	29.438600	180.000000	top
R14	22.098000	23.368000	0.000000	top
R15	25.527000	32.385000	270.000000	top
R16	27.178000	16.764000	0.000000	top
RV1	47.412400	12.884900	0.000000	top
SW1	54.594000	3.556000	180.000000	top