

PCB ASSEMBLY SPECIFICATIONS

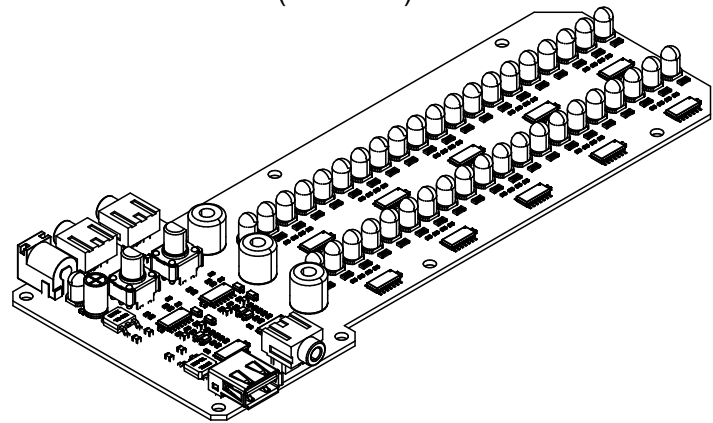
"LTK-MW-DISPLAY"

Variant: "MAIN"

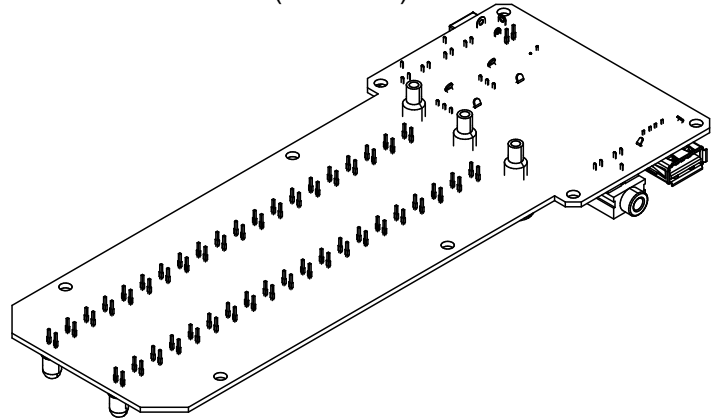
SPECIFICATIONS

NOTE #	NOTE
1	ALL SPECIFICATIONS REFERENCED SHALL BE OF THE LATEST REVISION UNLESS OTHERWISE NOTED
2	SUPPLIER SHALL NOT MODIFY THE DESIGN WITHOUT WRITTEN PERMISSION
4	THE BOM IN THIS DOCUMENT IS PURELY AN AID TO ASSEMBLY OPERATIONS AND MAY NOT HAVE THE MOST UP-TO-DATE DATA OR ALL APPROVED COMPONENT ALTERNATIVE.

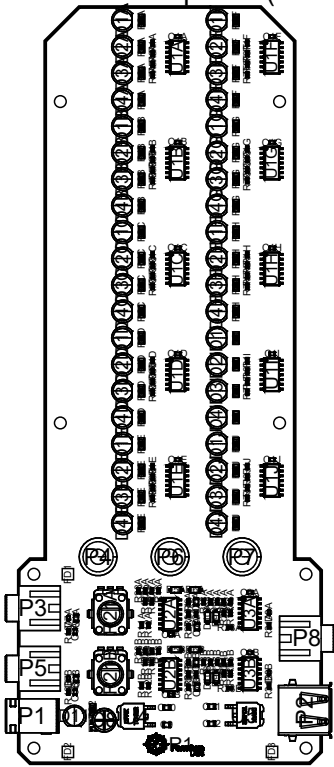
View from Front side (Scale 1:2)



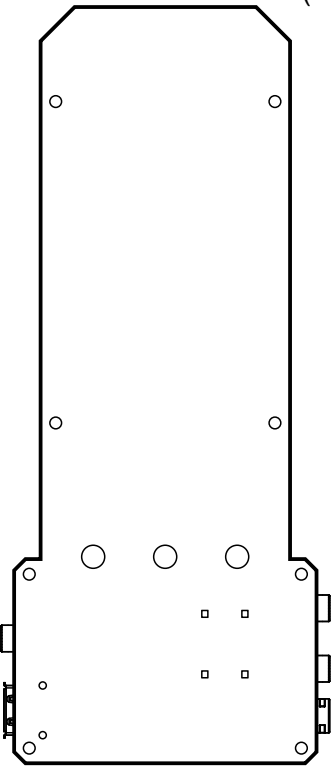
View from Back side (Scale 1:2)



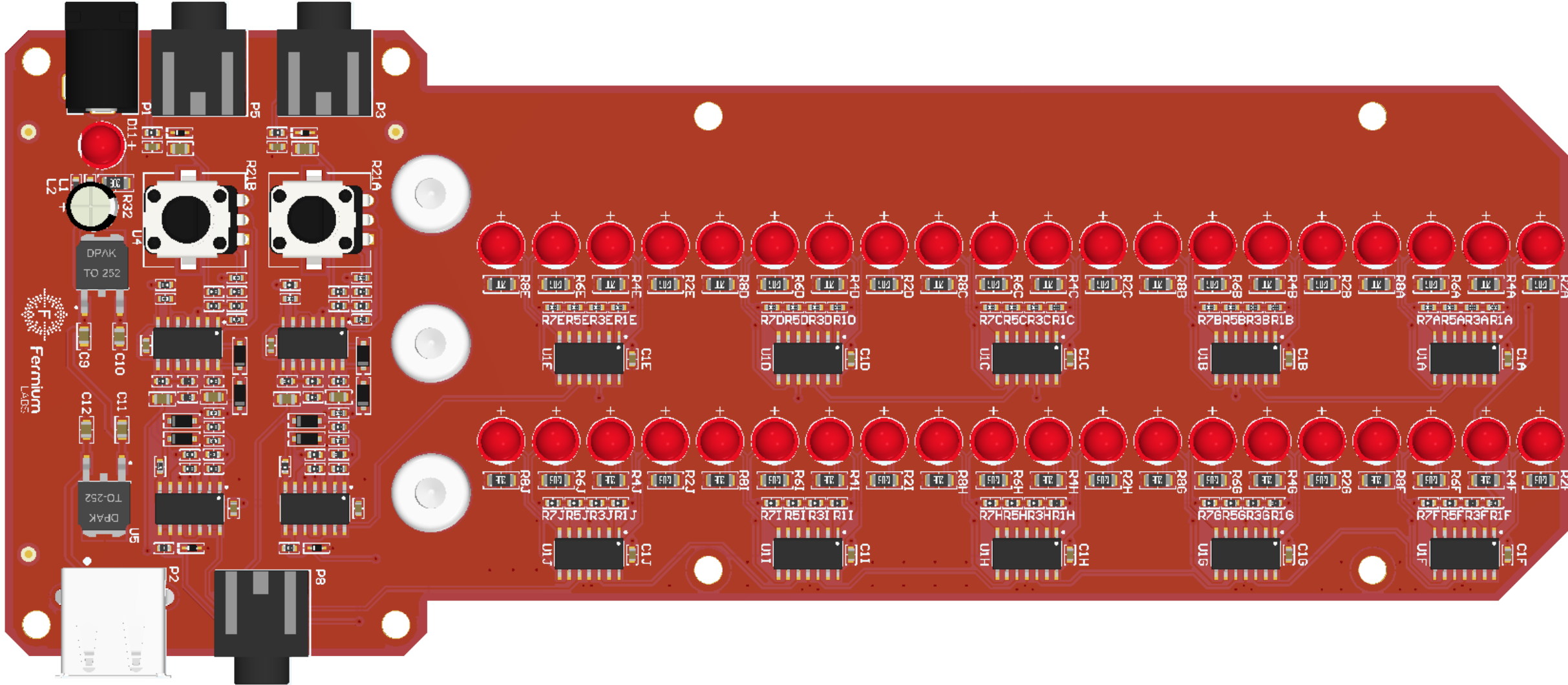
View from Top side (Scale 1:2)



View from Bottom side (Scale 1:2)



Realistic View TOP



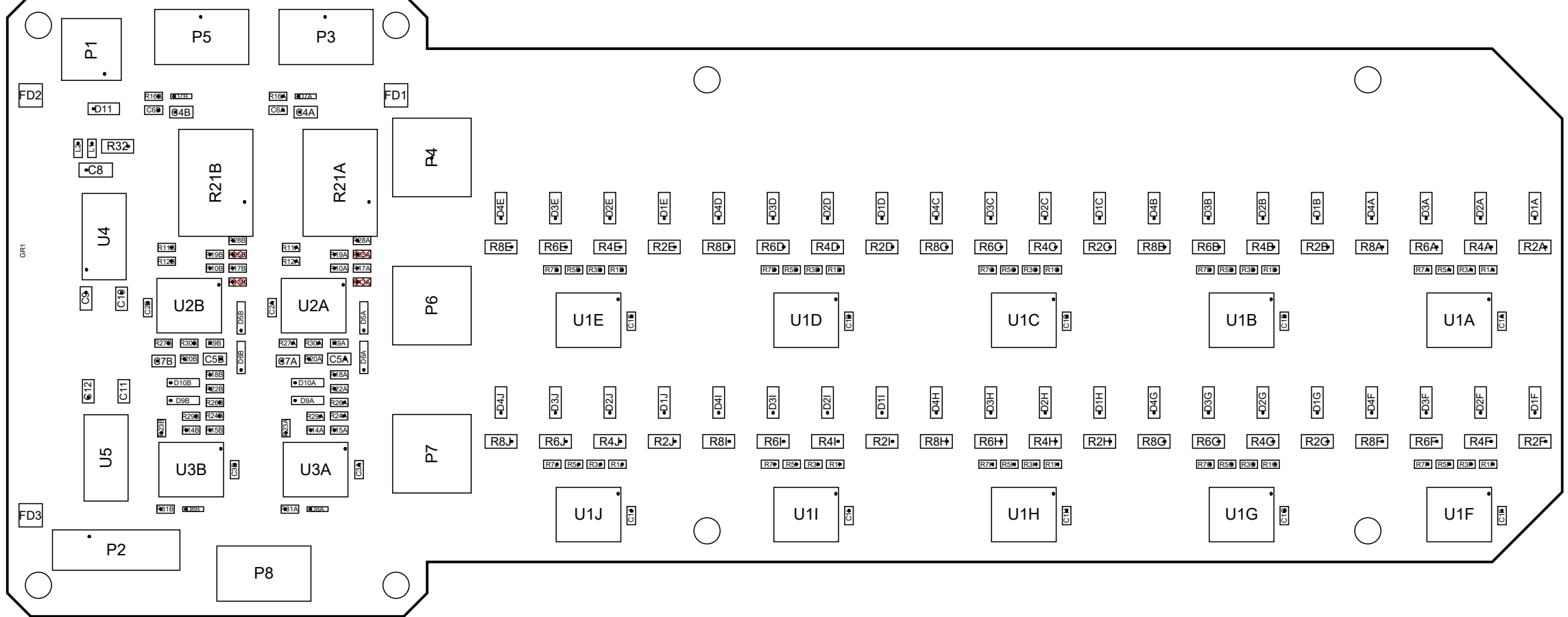
DIODE ORIENTATION

Name	ANODE
Short name	A
Pin number	2
Silkscreen	thin line
assembly view	no dot



Name	CATHODE
Short name	K
Pin number	1
Silkscreen	thick line / dot
assembly view	dot

View from Top side (Scale 3:2)



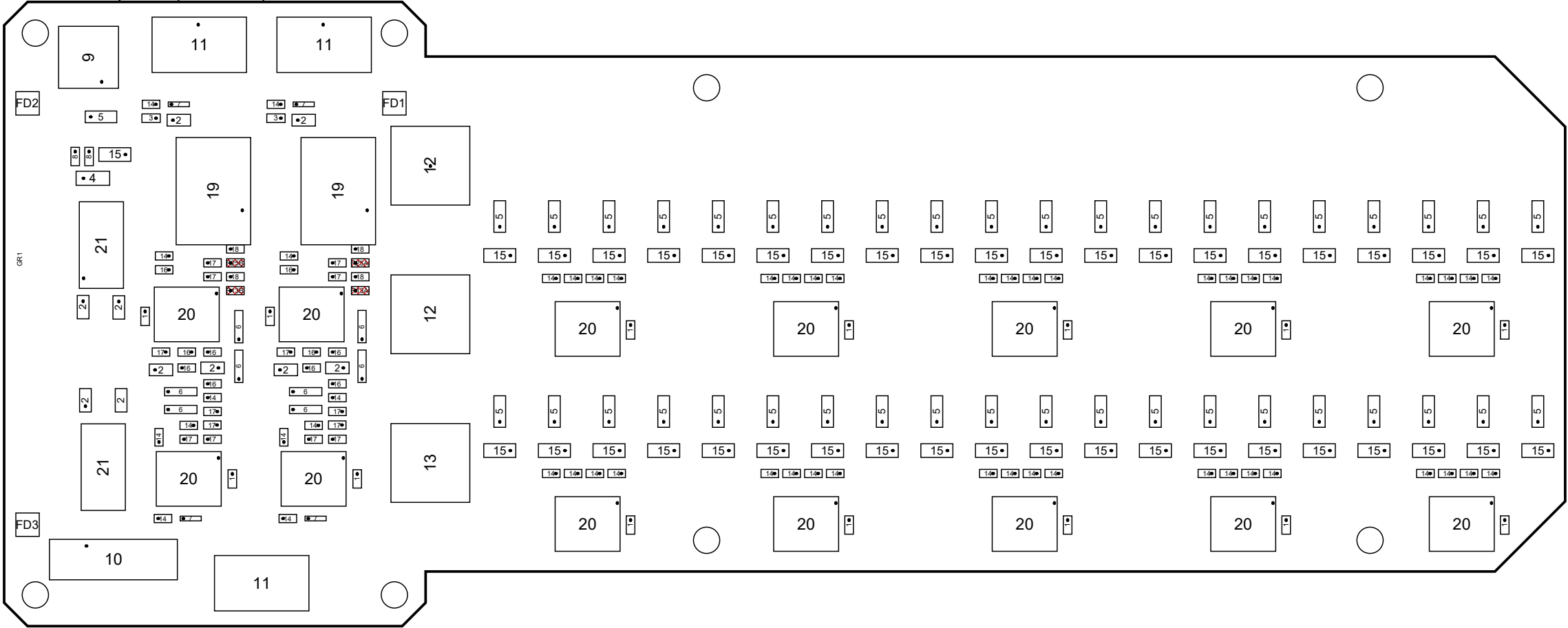
DIODE ORIENTATION

Name	ANODE
Short name	A
Pin number	2
Silkscreen	thin line
assembly view	no dot



Name	CATHODE
Short name	K
Pin number	1
Silkscreen	thick line / dot
assembly view	dot

View from Top side (Scale 3:2)



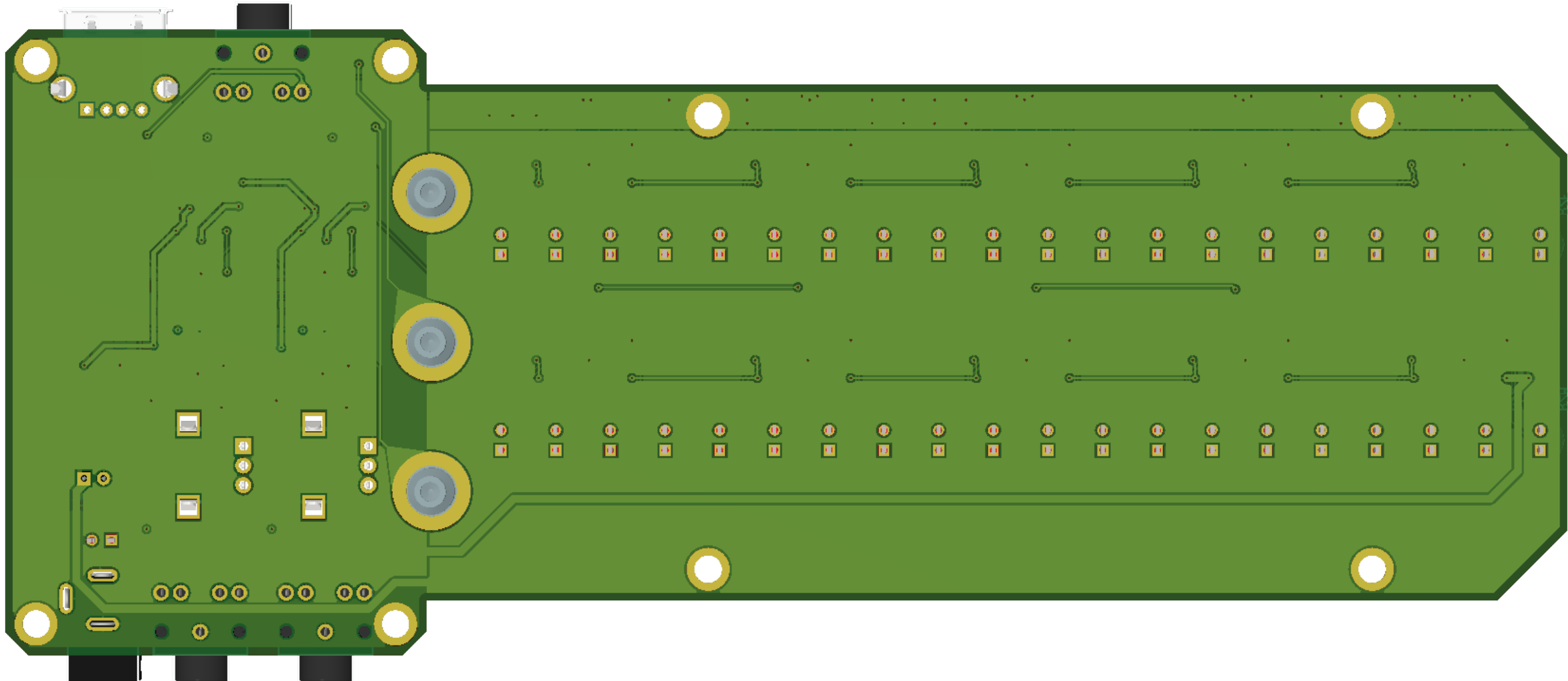
DIODE ORIENTATION

Name	ANODE
Short name	A
Pin number	2
Silkscreen	thin line
assembly view	no dot



Name	CATHODE
Short name	K
Pin number	1
Silkscreen	thick line / dot
assembly view	dot

Realistic View BOTTOM

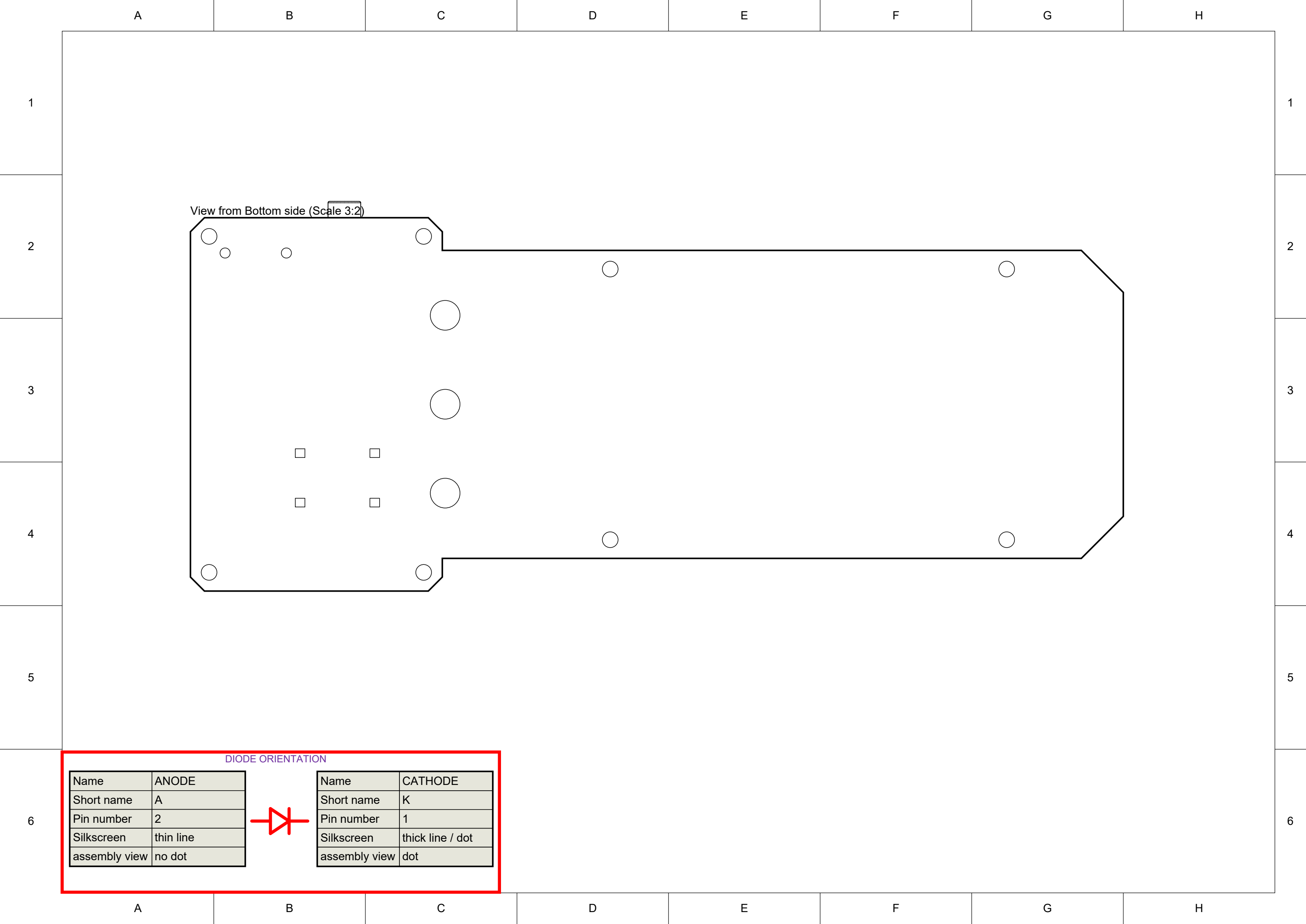


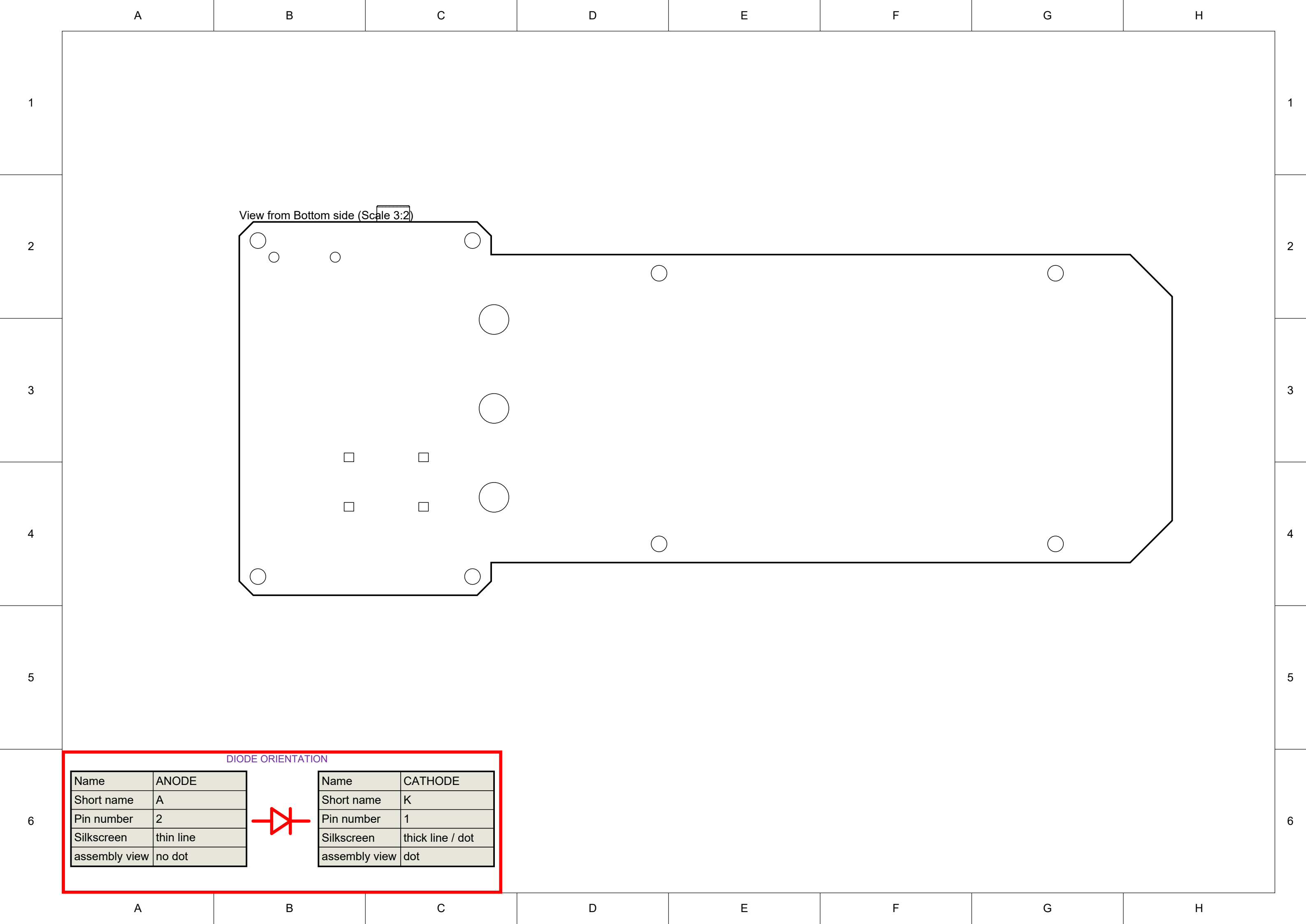
DIODE ORIENTATION

Name	ANODE
Short name	A
Pin number	2
Silkscreen	thin line
assembly view	no dot



Name	CATHODE
Short name	K
Pin number	1
Silkscreen	thick line / dot
assembly view	dot





A

B

C

D

E

F

G

H

View from Front side (Scale 3:2)

1

2

3

4

5

6

View from Back side (Scale 3:2)

1

2

3

4

5

6

A

B

C

D

E

F

G

H

	A	B	C	D	E	F	G	H																																																																																																																																																											
1	<div>Bill Of Materials</div> <table><tr><th>Line #</th><th>Description</th><th>Designator</th><th>Quantity</th><th>Manufacturer Part Number 1</th><th>Part Number</th><th>Layer</th></tr><tr><td>1</td><td>CAP SMD MLCC 100nF 25V 0603 X7R</td><td>C1A, C1B, C1C, C1D, C1E, C1F, C1G, C1H, C1I, C1J, C2A, C2B, C3A, C3B</td><td>14</td><td>CL10B104KA8NNNC</td><td>02841f84-ac15-41b5-9e17-915f8f067828</td><td></td></tr><tr><td>2</td><td>CAP SMD MLCC 10uF 25V 0805 X5R</td><td>C4A, C4B, C5A, C5B, C7A, C7B, C9, C10, C11, C12</td><td>10</td><td>CL21A106KAYNNNE</td><td>1ffbe5a9-0884-4740-bdad-20a6a98400e6</td><td></td></tr><tr><td>3</td><td>CAP SMD MLCC 1nF 50V 0603 X7R</td><td>C6A, C6B</td><td>2</td><td>CL10B102KB8NNNC</td><td>0eca2548-3630-4fea-a3d5-94248c1cae74</td><td></td></tr><tr><td>4</td><td>CAP THT ELEC 220uF 25V 20%</td><td>C8</td><td>1</td><td>25PK220MEFC-6.3*11</td><td>1a28df19-6d3e-4a71-836c-f22920f8e8ab</td><td></td></tr><tr><td>5</td><td>DIODE LED THT 5MM RED 200mcd</td><td>D1A, D1B, D1C, D1D, D1E, D1F, D1G, D1H, D1I, D1J, D2A, D2B, D2C, D2D, D2E, D2F, D2G, D2H, D2I, D2J, D3A, D3B, D3C, D3D, D3E, D3F, D3G, D3H, D3I, D3J, D4A, D4B, D4C, D4D, D4E, D4F, D4G, D4H, D4I, D4J, D11</td><td>41</td><td>333-2SURD/S530-A3-L</td><td>c65ae3d2-9539-4634-8979-616a331b7494</td><td></td></tr><tr><td>6</td><td>DIODE SMD 100V 150mA 1.5Vf SOD-123 4148</td><td>D5A, D5B, D6A, D6B, D9A, D9B, D10A, D10B</td><td>8</td><td>1N4148W-TP</td><td>5e920700-75df-48e3-84dd-8f9f777caed8</td><td></td></tr><tr><td>7</td><td>DIODE SMD TVS 5V BIDIRECTIONAL SOD-523</td><td>D7A, D7B, D8A, D8B</td><td>4</td><td>PESD5V0S1BBN</td><td>daa58212-38e2-4326-a156-8e48058c46f1</td><td></td></tr><tr><td>8</td><td>FER SMD CHIP 0603 800mA 1K@100MHz 300mOhm</td><td>L1, L2</td><td>2</td><td>MPZ1608S102ATA00</td><td>a4b2e015-bf25-47b8-954c-a5b040744a3a</td><td></td></tr><tr><td>9</td><td>CONN THT DC JACK 0.5A 30VDC 5Kcycles</td><td>P1</td><td>1</td><td>DC-005A-20A</td><td>b53db51a-1725-412b-9039-fa7a45c7c438</td><td></td></tr><tr><td>10</td><td>CONN THT USB TYPE-A HIGH RELIABILITY</td><td>P2</td><td>1</td><td>292303-1</td><td>9ff2a560-e541-4da0-adda-013cc9c65511</td><td></td></tr><tr><td>11</td><td>CONN THT 3.5mm AUDIO STEREO AUX SWITCH</td><td>P3, P5, P8</td><td>3</td><td>PJ-3900-04</td><td>80507a24-5d7c-4cf5-953e-f54832d54564</td><td></td></tr><tr><td>12</td><td>CONN BANANA SOCKET 4MM RED</td><td>P4, P6</td><td>2</td><td>24.247.1</td><td>3b84d3c9-1de5-4004-b768-3958a778153b</td><td></td></tr><tr><td>13</td><td>CONN BANANA SOCKET 4MM BLACK</td><td>P7</td><td>1</td><td>24.247.2</td><td>80ef162c-aaff-440a-80ad-5900ce15f9c1</td><td></td></tr><tr><td>14</td><td>RES SMD 1K OHM 1% 1/10W 0603</td><td>R1A, R1B, R1C, R1D, R1E, R1F, R1G, R1H, R1I, R1J, R3A, R3B, R3C, R3D, R3E, R3F, R3G, R3H, R3I, R3J, R5A, R5B, R5C, R5D, R5E, R5F, R5G, R5H, R5I, R5J, R7A, R7B, R7C, R7D, R7E, R7F, R7G, R7H, R7I, R7J, R11A, R11B, R16A, R16B, R22A, R22B, R23A, R23B, R29A, R29B, R31A, R31B</td><td>52</td><td>RC0603FR-071KL</td><td>a678220f-9e9d-4863-a833-9993504f723c</td><td></td></tr><tr><td>15</td><td>RES SMD 499 OHM 1% 1/4W 1206</td><td>R2A, R2B, R2C, R2D, R2E, R2F, R2G, R2H, R2I, R2J, R4A, R4B, R4C, R4D, R4E, R4F, R4G, R4H, R4I, R4J, R6A, R6B, R6C, R6D, R6E, R6F, R6G, R6H, R6I, R6J, R8A, R8B, R8C, R8D, R8E, R8F, R8G, R8H, R8I, R8J, R32</td><td>41</td><td>RC1206FR-07499RL</td><td>c8bf8de8-3430-48dd-94ac-a027709c0c4f</td><td></td></tr><tr><td>16</td><td>RES SMD 100K OHM 1% 1/10W 0603</td><td>R9A, R9B, R12A, R12B, R18A, R18B, R20A, R20B, R30A, R30B</td><td>10</td><td>RC0603FR-07100KL</td><td>76af10b3-9d85-4b5c-a2d6-26cc74f432f7</td><td></td></tr><tr><td>17</td><td>RES SMD 10K OHM 1% 1/10W 0603</td><td>R10A, R10B, R14A, R14B, R15A, R15B, R19A, R19B, R24A, R24B, R26A, R26B, R27A, R27B</td><td>14</td><td>RC0603FR-0710KL</td><td>93242766-ba1d-462d-b58f-ce1dfc4129c8</td><td></td></tr><tr><td>18</td><td>RES SMD 0 OHM 5% 1/10W 0603</td><td>R17A, R17B, R28A, R28B</td><td>4</td><td>RC0603JR-070RL</td><td>6ae227f9-847f-4766-8522-e11a83531204</td><td></td></tr><tr><td>19</td><td>POT 10K 20% SHAFT 6mmx7.4mm LIN</td><td>R21A, R21B</td><td>2</td><td>RK09K1130A6S</td><td>3df905ea-1e80-4add-859d-a36edd7f106c</td><td></td></tr><tr><td>20</td><td>IC SMD OPAMP LM324DT SO-14</td><td>U1A, U1B, U1C, U1D, U1E, U1F, U1G, U1H, U1I, U1J, U2A, U2B, U3A, U3B</td><td>14</td><td>LM324DT</td><td>21a85167-c328-42f7-a52e-365842c6dad3</td><td></td></tr><tr><td>21</td><td>IC SMD LINEAR VOLTAGE REGULATOR 5V 500mA DPAK/TO-252</td><td>U4, U5</td><td>2</td><td>L78M05ABDT-TR</td><td>446536aa-1bdd-4764-8cae-49f4e0c126ff</td><td></td></tr></table>								Line #	Description	Designator	Quantity	Manufacturer Part Number 1	Part Number	Layer	1	CAP SMD MLCC 100nF 25V 0603 X7R	C1A, C1B, C1C, C1D, C1E, C1F, C1G, C1H, C1I, C1J, C2A, C2B, C3A, C3B	14	CL10B104KA8NNNC	02841f84-ac15-41b5-9e17-915f8f067828		2	CAP SMD MLCC 10uF 25V 0805 X5R	C4A, C4B, C5A, C5B, C7A, C7B, C9, C10, C11, C12	10	CL21A106KAYNNNE	1ffbe5a9-0884-4740-bdad-20a6a98400e6		3	CAP SMD MLCC 1nF 50V 0603 X7R	C6A, C6B	2	CL10B102KB8NNNC	0eca2548-3630-4fea-a3d5-94248c1cae74		4	CAP THT ELEC 220uF 25V 20%	C8	1	25PK220MEFC-6.3*11	1a28df19-6d3e-4a71-836c-f22920f8e8ab		5	DIODE LED THT 5MM RED 200mcd	D1A, D1B, D1C, D1D, D1E, D1F, D1G, D1H, D1I, D1J, D2A, D2B, D2C, D2D, D2E, D2F, D2G, D2H, D2I, D2J, D3A, D3B, D3C, D3D, D3E, D3F, D3G, D3H, D3I, D3J, D4A, D4B, D4C, D4D, D4E, D4F, D4G, D4H, D4I, D4J, D11	41	333-2SURD/S530-A3-L	c65ae3d2-9539-4634-8979-616a331b7494		6	DIODE SMD 100V 150mA 1.5Vf SOD-123 4148	D5A, D5B, D6A, D6B, D9A, D9B, D10A, D10B	8	1N4148W-TP	5e920700-75df-48e3-84dd-8f9f777caed8		7	DIODE SMD TVS 5V BIDIRECTIONAL SOD-523	D7A, D7B, D8A, D8B	4	PESD5V0S1BBN	daa58212-38e2-4326-a156-8e48058c46f1		8	FER SMD CHIP 0603 800mA 1K@100MHz 300mOhm	L1, L2	2	MPZ1608S102ATA00	a4b2e015-bf25-47b8-954c-a5b040744a3a		9	CONN THT DC JACK 0.5A 30VDC 5Kcycles	P1	1	DC-005A-20A	b53db51a-1725-412b-9039-fa7a45c7c438		10	CONN THT USB TYPE-A HIGH RELIABILITY	P2	1	292303-1	9ff2a560-e541-4da0-adda-013cc9c65511		11	CONN THT 3.5mm AUDIO STEREO AUX SWITCH	P3, P5, P8	3	PJ-3900-04	80507a24-5d7c-4cf5-953e-f54832d54564		12	CONN BANANA SOCKET 4MM RED	P4, P6	2	24.247.1	3b84d3c9-1de5-4004-b768-3958a778153b		13	CONN BANANA SOCKET 4MM BLACK	P7	1	24.247.2	80ef162c-aaff-440a-80ad-5900ce15f9c1		14	RES SMD 1K OHM 1% 1/10W 0603	R1A, R1B, R1C, R1D, R1E, R1F, R1G, R1H, R1I, R1J, R3A, R3B, R3C, R3D, R3E, R3F, R3G, R3H, R3I, R3J, R5A, R5B, R5C, R5D, R5E, R5F, R5G, R5H, R5I, R5J, R7A, R7B, R7C, R7D, R7E, R7F, R7G, R7H, R7I, R7J, R11A, R11B, R16A, R16B, R22A, R22B, R23A, R23B, R29A, R29B, R31A, R31B	52	RC0603FR-071KL	a678220f-9e9d-4863-a833-9993504f723c		15	RES SMD 499 OHM 1% 1/4W 1206	R2A, R2B, R2C, R2D, R2E, R2F, R2G, R2H, R2I, R2J, R4A, R4B, R4C, R4D, R4E, R4F, R4G, R4H, R4I, R4J, R6A, R6B, R6C, R6D, R6E, R6F, R6G, R6H, R6I, R6J, R8A, R8B, R8C, R8D, R8E, R8F, R8G, R8H, R8I, R8J, R32	41	RC1206FR-07499RL	c8bf8de8-3430-48dd-94ac-a027709c0c4f		16	RES SMD 100K OHM 1% 1/10W 0603	R9A, R9B, R12A, R12B, R18A, R18B, R20A, R20B, R30A, R30B	10	RC0603FR-07100KL	76af10b3-9d85-4b5c-a2d6-26cc74f432f7		17	RES SMD 10K OHM 1% 1/10W 0603	R10A, R10B, R14A, R14B, R15A, R15B, R19A, R19B, R24A, R24B, R26A, R26B, R27A, R27B	14	RC0603FR-0710KL	93242766-ba1d-462d-b58f-ce1dfc4129c8		18	RES SMD 0 OHM 5% 1/10W 0603	R17A, R17B, R28A, R28B	4	RC0603JR-070RL	6ae227f9-847f-4766-8522-e11a83531204		19	POT 10K 20% SHAFT 6mmx7.4mm LIN	R21A, R21B	2	RK09K1130A6S	3df905ea-1e80-4add-859d-a36edd7f106c		20	IC SMD OPAMP LM324DT SO-14	U1A, U1B, U1C, U1D, U1E, U1F, U1G, U1H, U1I, U1J, U2A, U2B, U3A, U3B	14	LM324DT	21a85167-c328-42f7-a52e-365842c6dad3		21	IC SMD LINEAR VOLTAGE REGULATOR 5V 500mA DPAK/TO-252	U4, U5	2	L78M05ABDT-TR	446536aa-1bdd-4764-8cae-49f4e0c126ff		1
Line #	Description	Designator	Quantity	Manufacturer Part Number 1	Part Number	Layer																																																																																																																																																													
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5	DIODE LED THT 5MM RED 200mcd	D1A, D1B, D1C, D1D, D1E, D1F, D1G, D1H, D1I, D1J, D2A, D2B, D2C, D2D, D2E, D2F, D2G, D2H, D2I, D2J, D3A, D3B, D3C, D3D, D3E, D3F, D3G, D3H, D3I, D3J, D4A, D4B, D4C, D4D, D4E, D4F, D4G, D4H, D4I, D4J, D11	41	333-2SURD/S530-A3-L	c65ae3d2-9539-4634-8979-616a331b7494																																																																																																																																																														
6	DIODE SMD 100V 150mA 1.5Vf SOD-123 4148	D5A, D5B, D6A, D6B, D9A, D9B, D10A, D10B	8	1N4148W-TP	5e920700-75df-48e3-84dd-8f9f777caed8																																																																																																																																																														
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8	FER SMD CHIP 0603 800mA 1K@100MHz 300mOhm	L1, L2	2	MPZ1608S102ATA00	a4b2e015-bf25-47b8-954c-a5b040744a3a																																																																																																																																																														
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10	CONN THT USB TYPE-A HIGH RELIABILITY	P2	1	292303-1	9ff2a560-e541-4da0-adda-013cc9c65511																																																																																																																																																														
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13	CONN BANANA SOCKET 4MM BLACK	P7	1	24.247.2	80ef162c-aaff-440a-80ad-5900ce15f9c1																																																																																																																																																														
14	RES SMD 1K OHM 1% 1/10W 0603	R1A, R1B, R1C, R1D, R1E, R1F, R1G, R1H, R1I, R1J, R3A, R3B, R3C, R3D, R3E, R3F, R3G, R3H, R3I, R3J, R5A, R5B, R5C, R5D, R5E, R5F, R5G, R5H, R5I, R5J, R7A, R7B, R7C, R7D, R7E, R7F, R7G, R7H, R7I, R7J, R11A, R11B, R16A, R16B, R22A, R22B, R23A, R23B, R29A, R29B, R31A, R31B	52	RC0603FR-071KL	a678220f-9e9d-4863-a833-9993504f723c																																																																																																																																																														
15	RES SMD 499 OHM 1% 1/4W 1206	R2A, R2B, R2C, R2D, R2E, R2F, R2G, R2H, R2I, R2J, R4A, R4B, R4C, R4D, R4E, R4F, R4G, R4H, R4I, R4J, R6A, R6B, R6C, R6D, R6E, R6F, R6G, R6H, R6I, R6J, R8A, R8B, R8C, R8D, R8E, R8F, R8G, R8H, R8I, R8J, R32	41	RC1206FR-07499RL	c8bf8de8-3430-48dd-94ac-a027709c0c4f																																																																																																																																																														
16	RES SMD 100K OHM 1% 1/10W 0603	R9A, R9B, R12A, R12B, R18A, R18B, R20A, R20B, R30A, R30B	10	RC0603FR-07100KL	76af10b3-9d85-4b5c-a2d6-26cc74f432f7																																																																																																																																																														
17	RES SMD 10K OHM 1% 1/10W 0603	R10A, R10B, R14A, R14B, R15A, R15B, R19A, R19B, R24A, R24B, R26A, R26B, R27A, R27B	14	RC0603FR-0710KL	93242766-ba1d-462d-b58f-ce1dfc4129c8																																																																																																																																																														
18	RES SMD 0 OHM 5% 1/10W 0603	R17A, R17B, R28A, R28B	4	RC0603JR-070RL	6ae227f9-847f-4766-8522-e11a83531204																																																																																																																																																														
19	POT 10K 20% SHAFT 6mmx7.4mm LIN	R21A, R21B	2	RK09K1130A6S	3df905ea-1e80-4add-859d-a36edd7f106c																																																																																																																																																														
20	IC SMD OPAMP LM324DT SO-14	U1A, U1B, U1C, U1D, U1E, U1F, U1G, U1H, U1I, U1J, U2A, U2B, U3A, U3B	14	LM324DT	21a85167-c328-42f7-a52e-365842c6dad3																																																																																																																																																														
21	IC SMD LINEAR VOLTAGE REGULATOR 5V 500mA DPAK/TO-252	U4, U5	2	L78M05ABDT-TR	446536aa-1bdd-4764-8cae-49f4e0c126ff																																																																																																																																																														
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6	BOM FOR REFERENCE ONLY ALWAYS REFER TO THE LATEST EXCEL BOM PROVIDED								6																																																																																																																																																										
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