

Figure 1. Dimensions



Figure 2A.



Figure 2B.



Figure 2C.

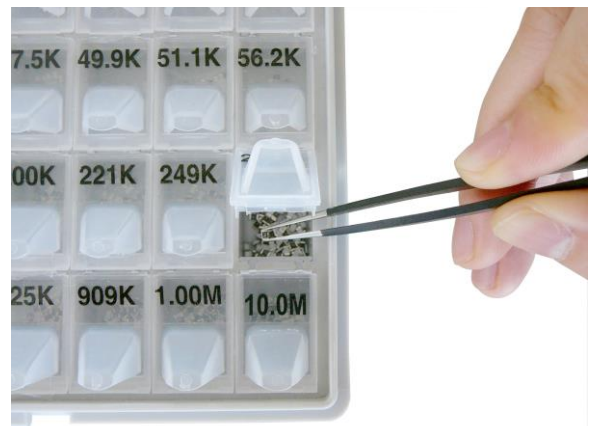


Figure 2D.

**DESCRIPTION**

By its name, this 128-Bin Resistor Kits use our patented Super Enclosure which has 128 individually lidded and labeled bins for storing up to 128 different types of SMD resistors. Figure 2's shows the photos of the Super Enclosure. Figure 1 shows the Super Enclosure dimensions. Table 3 is the selection guide for different type of kits available in this series and their online purchasing links. The kits are categorized by the size of the resistors, the number of values/kit, and the number of pieces/value. Table 1 shows the specifications of the resistors. Please note that for the 510 value kit, it covers all the E-96 series resistance values; for the 128 values, it covers approximately the E-24 series resistance values, but implemented by 1% resistors, as opposed to  $\pm 5\%$  resistors. For example,

our selected resistor value is  $2.49\Omega$ , while the original E-24 value is  $2.4\Omega$ .

Operating the enclosure is easy and convenient so that your time for obtaining a particular resistor is minimized to just seconds.

The kits can easily be placed on a work bench, put on a shelf, or transported to other sites, and are the best choice for building prototypes, doing experiments on new circuits, or reworking printed circuit boards.

For more detailed information:

[www.analogtechnologies.com](http://www.analogtechnologies.com)

[www.smtzone.com](http://www.smtzone.com)

E-mail us: [staff@analogti.com](mailto:staff@analogti.com)

**SPECIFICATIONS**

Table 1. Characteristics

Type	Power	Operating Temperature Range	Max. Working Voltage	Max. Overload Voltage	Dielectric Withstanding Voltage	Resistance Range	Tolerance	Temperature Coefficient	Jumper Criteria	
									Rated Current	Max. Current
0402	1/16W	-55°C to 155°C	50V	100V	100V	0Ω to 20MΩ 0Ω Jumper < 0.05 Ω	1%	1Ω ≤ R ≤ 10Ω ±200ppm/°C 10Ω < R ≤ 10MΩ ±100ppm/°C 10MΩ < R ≤ 22MΩ ±200ppm/°C	1.0A	2.0A
0603	1/10W	-55°C to 155°C	75V	150V	100V	0Ω to 20MΩ 0Ω Jumper < 0.05 Ω	1%	1Ω ≤ R ≤ 10Ω ±200ppm/°C 10Ω < R ≤ 10MΩ ±100ppm/°C 10MΩ < R ≤ 22MΩ ±200ppm/°C	1.0A	2.0A
0805	1/8W	-55°C to 155°C	150V	300V	300V	0Ω to 20MΩ 0Ω Jumper < 0.05 Ω	1%	1Ω ≤ R ≤ 10Ω ±200ppm/°C 10Ω < R ≤ 10MΩ ±100ppm/°C 10MΩ < R ≤ 22MΩ ±200ppm/°C	2.0A	5.0A
1206	1/4W	-55°C to 155°C	200V	400V	500V	0Ω to 20MΩ 0Ω Jumper < 0.05 Ω	1%	1Ω ≤ R ≤ 10Ω ±200ppm/°C 10Ω < R ≤ 10MΩ ±100ppm/°C 10MΩ < R ≤ 22MΩ ±200ppm/°C	2.0A	10.0A

Table 2. For outlines, please refer to Figure 3.

Type	L	W	H	I <sub>1</sub>	I <sub>2</sub>	Unit
0402	0.039 ± 0.002	0.020 ± 0.002	0.013 ± 0.002	0.008 ± 0.004	0.010 ± 0.004	inch
	1.00 ± 0.05	0.50 ± 0.05	0.32 ± 0.05	0.20 ± 0.10	0.25 ± 0.10	mm
0603	0.063 ± 0.004	0.031 ± 0.004	0.018 ± 0.004	0.010 ± 0.006	0.010 ± 0.006	inch
	1.60 ± 0.10	0.80 ± 0.10	0.45 ± 0.10	0.25 ± 0.15	0.25 ± 0.15	mm
0805	0.079 ± 0.004	0.049 ± 0.004	0.020 ± 0.004	0.014 ± 0.008	0.014 ± 0.008	inch
	2.00 ± 0.10	1.25 ± 0.10	0.50 ± 0.10	0.35 ± 0.20	0.35 ± 0.20	mm
1206	0.122 ± 0.004	0.063 ± 0.004	0.022 ± 0.004	0.018 ± 0.008	0.018 ± 0.008	inch
	3.10 ± 0.10	1.60 ± 0.10	0.55 ± 0.10	0.45 ± 0.20	0.45 ± 0.20	mm

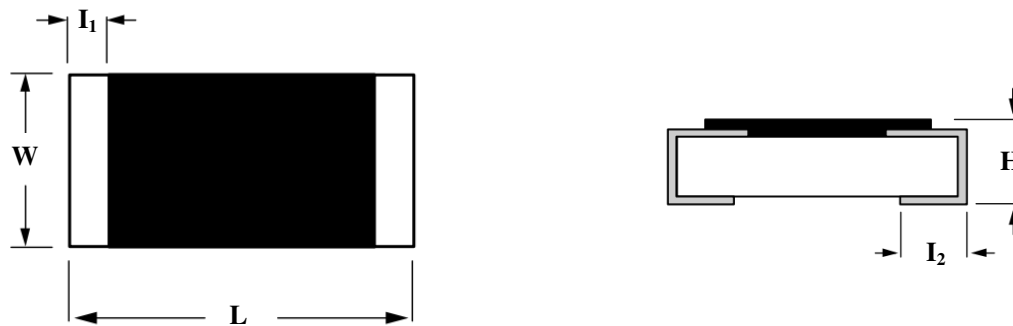


Figure 3. Resistor Dimensions

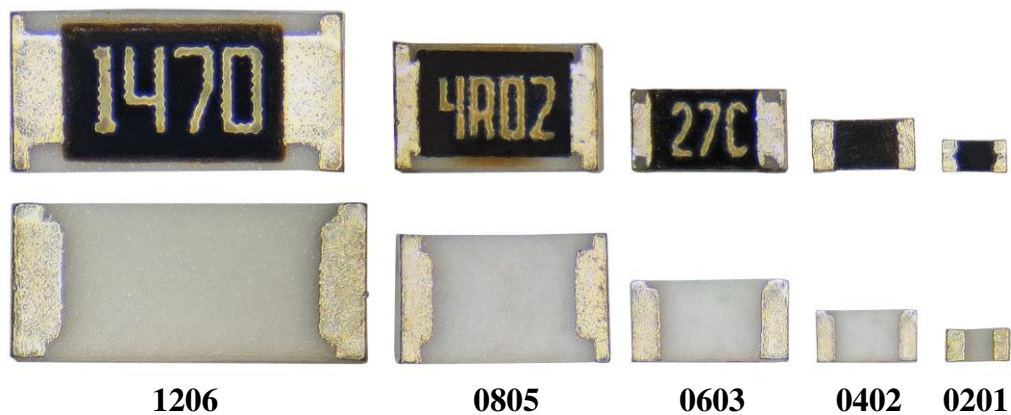


Figure 4. Resistor Marking Code

**a**: Amazon, 15% higher priced due to commission fee.

**K**: Digikey, 15% higher priced due to commission fee.

**SZ**: [SMTZone.com](http://SMTZone.com), our own online store, no commission fee.

**AS**: [shop.analogtechnologies.com](http://shop.analogtechnologies.com), our own online store, no commission fee.

Table 3. Selection Guide for different type of kits available.

































Value \ Size	0402	0603	0805	1206
128 Values	R04E24-50 50PCs/Value 	R06E24-50 50PCs/Value 	R09E24-50 50PCs/Value 	R12E24-50 50PCs/Value 
	R04E24-100 100PCs/Value 	R06E24-100 100PCs/Value 	R09E24-100 100PCs/Value 	R12E24-100 100PCs/Value 
	R04E24-200 200PCs/Value 	R06E24-200 200PCs/Value 	R09E24-200 200PCs/Value 	R12E24-200 200PCs/Value 
	R04E24-500 500PCs/Value 	R06E24-500 500PCs/Value 	R09E24-500 500PCs/Value 	R12E24-500 500PCs/Value 
	R04E96-50 50PCs/Value 	R06E96-50 50PCs/Value 	R09E96-50 50PCs/Value 	R12E96-50 50PCs/Value 
	R04E96-100 100PCs/Value 	R06E96-100 100PCs/Value 	R09E96-100 100PCs/Value 	R12E96-100 100PCs/Value 
	R04E96-200 200PCs/Value 	R06E96-200 200PCs/Value 	R09E96-200 200PCs/Value 	R12E96-200 200PCs/Value 
	R04E96-500 500PCs/Value 	R06E96-500 500PCs/Value 	R09E96-500 500PCs/Value 	R12E96-500 500PCs/Value 

Table 4. Available Values for 128 Value (in **bold**) and 510 Value Kits.

Note: 1206 &amp; 0805 use 4 digit marking. 0603 use 3 digit marking. 0402 &amp; 0201 don't use marking. See Figure 4.

Resistance	4 Digit Marking	3 Digit Marking	Resistance	4 Digit Marking	3 Digit Marking	Resistance	4 Digit Marking	3 Digit Marking	Resistance	4 Digit Marking	3 Digit Marking	Resistance	4 Digit Marking	3 Digit Marking	Resistance	4 Digit Marking	3 Digit Marking	Resistance	4 Digit Marking	3 Digit Marking			
0.1	<b>0R1</b>		<b>1.00</b>	<b>1R00</b>	<b>01Y</b>	<b>10.0</b>	<b>10R0</b>	<b>01X</b>	<b>100</b>	<b>1000</b>	<b>01A</b>	<b>1.00k</b>	<b>1001</b>	<b>01B</b>	<b>10.0k</b>	<b>1002</b>	<b>01C</b>	<b>100k</b>	<b>1003</b>	<b>01D</b>	<b>1.00M</b>	<b>1004</b>	<b>01E</b>
			<b>0.0</b>	<b>0</b>		10.2	10R2	02X	102	1020	02A	1.02k	1021	02B	10.2k	1022	02C	102k	1023	02D			
						10.5	10R5	03X	105	1050	03A	1.05k	1051	03B	10.5k	1052	03C	105k	1053	03D			
						10.7	10R7	04X	107	1070	04A	1.07k	1071	04B	10.7k	1072	04C	107k	1073	04D			
						<b>11.0</b>	<b>11R0</b>	<b>05X</b>	<b>110</b>	<b>1100</b>	<b>05A</b>	<b>1.10k</b>	<b>1101</b>	<b>05B</b>	<b>11.0k</b>	<b>1102</b>	<b>05C</b>	<b>110k</b>	<b>1103</b>	<b>05D</b>			
						11.3	11R3	06X	113	1130	06A	1.13k	1131	06B	11.3k	1132	06C	113k	1133	06D			
						11.5	11R5	07X	115	1150	07A	1.15k	1151	07B	11.5k	1152	07C	115k	1153	07D			
						11.8	11R8	08X	118	1180	08A	1.18k	1181	08B	11.8k	1182	08C	118k	1183	08D			
						<b>12.1</b>	<b>12R1</b>	<b>09X</b>	<b>121</b>	<b>1210</b>	<b>09A</b>	<b>1.21k</b>	<b>1211</b>	<b>09B</b>	<b>12.1k</b>	<b>1212</b>	<b>09C</b>	<b>121k</b>	<b>1213</b>	<b>09D</b>			
						12.4	12R4	10X	124	1240	10A	1.24k	1241	10B	12.4k	1242	10C	124k	1243	10D			
						12.7	12R7	11X	127	1270	11A	1.27k	1271	11B	12.7k	1272	11C	127k	1273	11D			
						<b>13.0</b>	<b>13R0</b>	<b>12X</b>	<b>130</b>	<b>1300</b>	<b>12A</b>	<b>1.30k</b>	<b>1301</b>	<b>12B</b>	<b>13.0k</b>	<b>1302</b>	<b>12C</b>	<b>130k</b>	<b>1303</b>	<b>12D</b>			
						13.3	13R3	13X	133	1330	13A	1.33k	1331	13B	13.3k	1332	13C	133k	1333	13D			
						13.7	13R7	14X	137	1370	14A	1.37k	1371	14B	13.7k	1372	14C	137k	1373	14D			
						14.0	14R2	15X	140	1400	15A	1.40k	1401	15B	14.0k	1402	15C	140k	1403	15D			
						14.3	14R3	16X	143	1430	16A	1.43k	1431	16B	14.3k	1432	16C	143k	1433	16D			
						14.7	14R7	17X	147	1470	17A	1.47k	1471	17B	14.7k	1472	17C	147k	1473	17D			
			1.50	<b>1R50</b>	<b>18Y</b>	<b>15.0</b>	<b>15R0</b>	<b>18X</b>	<b>150</b>	<b>1500</b>	<b>18A</b>	<b>1.50k</b>	<b>1501</b>	<b>18B</b>	<b>15.0k</b>	<b>1502</b>	<b>18C</b>	<b>150k</b>	<b>1503</b>	<b>18D</b>	1.50M	1504	18E
						15.4	15R4	19X	154	1540	19A	1.54k	1541	19B	15.4k	1542	19C	154k	1543	19D			
						15.8	15R8	20X	158	1580	20A	1.58k	1581	20B	15.8k	1582	20C	158k	1583	20D			
						<b>16.2</b>	<b>16R2</b>	<b>21X</b>	<b>162</b>	<b>1620</b>	<b>21A</b>	<b>1.62k</b>	<b>1621</b>	<b>21B</b>	<b>16.2k</b>	<b>1622</b>	<b>21C</b>	<b>162k</b>	<b>1623</b>	<b>21D</b>			
						16.5	16R5	22X	165	1650	22A	1.65k	1651	22B	16.5k	1652	22C	165k	1653	22D			
						16.9	16R9	23X	169	1690	23A	1.69k	1691	23B	16.9k	1692	23C	169k	1693	23D			
						17.4	17R4	24X	174	1740	24A	1.74k	1741	24B	17.4k	1742	24C	174k	1743	24D			
						17.8	17R8	25X	178	1780	25A	1.78k	1781	25B	17.8k	1782	25C	178k	1783	25D			
						<b>18.2</b>	<b>18R2</b>	<b>26X</b>	<b>182</b>	<b>1820</b>	<b>26A</b>	<b>1.82k</b>	<b>1821</b>	<b>26B</b>	<b>18.2k</b>	<b>1822</b>	<b>26C</b>	<b>182k</b>	<b>1823</b>	<b>26D</b>			
						18.7	18R7	27X	187	1870	27A	1.87k	1871	27B	18.7k	1872	27C	187k	1873	27D			
						19.1	19R1	28X	191	1910	28A	1.91k	1911	28B	19.1k	1912	28C	191k	1913	28D			
						19.6	19R6	29X	196	1960	29A	1.96k	1961	29B	19.6k	1962	29C	196k	1963	29D			
			2.00	<b>2R00</b>	<b>30Y</b>	<b>20.0</b>	<b>20R0</b>	<b>30X</b>	<b>200</b>	<b>2000</b>	<b>30A</b>	<b>2.00k</b>	<b>2001</b>	<b>30B</b>	<b>20.0k</b>	<b>2002</b>	<b>30C</b>	<b>200k</b>	<b>2003</b>	<b>30D</b>	2.00M	2004	30E
						20.5	20R5	31X	205	2050	31A	2.05k	2051	31B	20.5k	2052	31C	205k	2053	31D			
						21.0	21R0	32X	210	2100	32A	2.10k	2101	32B	21.0k	2102	32C	210k	2103	32D			
						21.5	21R5	33X	215	2150	33A	2.15k	2151	33B	21.5k	2152	33C	215k	2153	33D			
						<b>22.1</b>	<b>22R1</b>	<b>34X</b>	<b>221</b>	<b>2210</b>	<b>34A</b>	<b>2.21k</b>	<b>2211</b>	<b>34B</b>	<b>22.1k</b>	<b>2212</b>	<b>34C</b>	<b>221k</b>	<b>2213</b>	<b>34D</b>			
						22.6	22R6	35X	226	2260	35A	2.26k	2261	35B	22.6k	2262	35C	226k	2263	35D			
						23.2	23R2	36X	232	2320	36A	2.32k	2321	36B	23.2k	2322	36C	232k	2323	36D			
						23.7	23R7	37X	237	2370	37A	2.37k	2371	37B	23.7k	2372	37C	237k	2373	37D			
						24.3	24R3	38X	243	2430	38A	2.43k	2431	38B	24.3k	2432	38C	243k	2433	38D			





Table with 24 columns: Resistance, 4 Digit Marking, 3 Digit Marking, Resistance, 4 Digit Marking, 3 Digit Marking, Resistance, 4 Digit Marking, 3 Digit Marking, Resistance, 4 Digit Marking, 3 Digit Marking, Resistance, 4 Digit Marking, 3 Digit Marking, Resistance, 4 Digit Marking, 3 Digit Marking, Resistance, 4 Digit Marking, 3 Digit Marking, Resistance, 4 Digit Marking, 3 Digit Marking. Rows include values like 2.49, 24.9, 249, 2.49k, 3.01, 4.02, 0.50, 5.90, 60.4, 63.4, 64.9.



Resistance	4 Digit Marking	3 Digit Marking	Resistance	4 Digit Marking	3 Digit Marking	Resistance	4 Digit Marking	3 Digit Marking	Resistance	4 Digit Marking	3 Digit Marking	Resistance	4 Digit Marking	3 Digit Marking	Resistance	4 Digit Marking	3 Digit Marking			
			66.5	66R5	80X	665	6650	80A	6.65k	6651	80B	66.5k	6652	80C	665k	6653	80D			
		6.81	68.1	68R1	81Y	681	6810	81A	6.81k	6811	81B	68.1k	6812	81C	681k	6813	81D	6.81M	6814	81E
			69.8	69R8	82X	698	6980	82A	6.98k	6981	82B	69.8k	6982	82C	698k	6983	82D			
			71.5	71R5	83X	715	7150	83A	7.15k	7151	83B	71.5k	7152	83C	715k	7153	83D			
			73.2	73R2	84X	732	7320	84A	7.32k	7321	84B	73.2k	7322	84C	732k	7323	84D			
		7.50	75.0	75R0	85Y	750	7500	85A	7.50k	7501	85B	75.0k	7502	85C	750k	7503	85D	7.50M	7504	85E
			76.8	76R8	86X	768	7680	86A	7.68k	7681	86B	76.8k	7682	86C	768k	7683	86D			
			78.7	78R7	87X	787	7870	87A	7.87k	7871	87B	78.7k	7872	87C	787k	7873	87D			
			80.6	80R6	88X	806	8060	88A	8.06k	8061	88B	80.6k	8062	88C	806k	8063	88D			
		8.25	82.5	82R5	89Y	825	8250	89A	8.25k	8251	89B	82.5k	8252	89C	825k	8253	89D	8.25M	8254	89E
			84.5	84R5	90X	845	8450	90A	8.45k	8451	90B	84.5k	8452	90C	845k	8453	90D			
			86.6	86R6	91X	866	8660	91A	8.66k	8661	91B	86.6k	8662	91C	866k	8663	91D			
			88.7	88R7	92X	887	8870	92A	8.87k	8871	92B	88.7k	8872	92C	887k	8873	92D			
		9.09	90.9	90R9	93Y	909	9090	93A	9.09k	9091	93B	90.9k	9092	93C	909k	9093	93D	9.09M	9094	93E
			93.1	93R1	94X	931	9310	94A	9.31k	9311	94B	93.1k	9312	94C	931k	9313	94D	10M	1005	94E
			95.3	95R3	95X	953	9530	95A	9.53k	9531	95B	95.3k	9532	95C	953k	9533	95D	15M	1505	95E
			97.6	97R6	96X	976	9760	96A	9.76k	9761	96B	97.6k	9762	96C	976k	9763	96D	20M	2005	96E

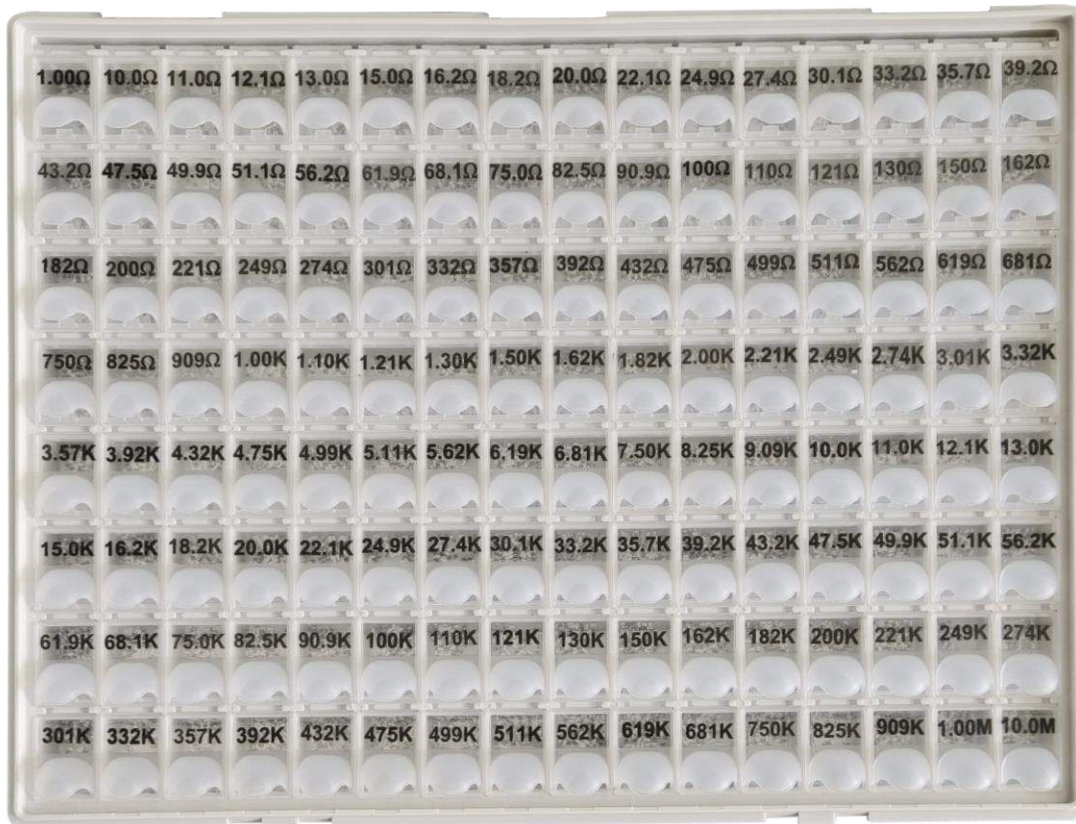


Figure 5. 128 Value Resistor Kit Bin Layout



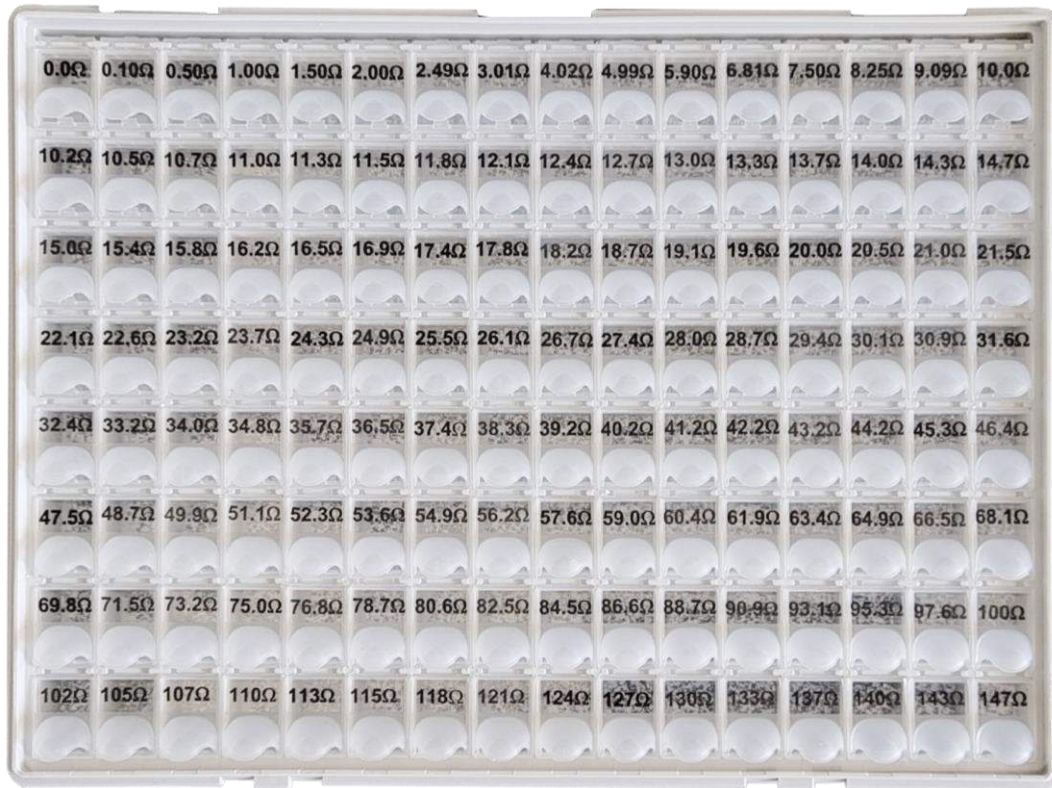


Figure 6. 510 Value Resistor Kit 4-1 Bin Layout

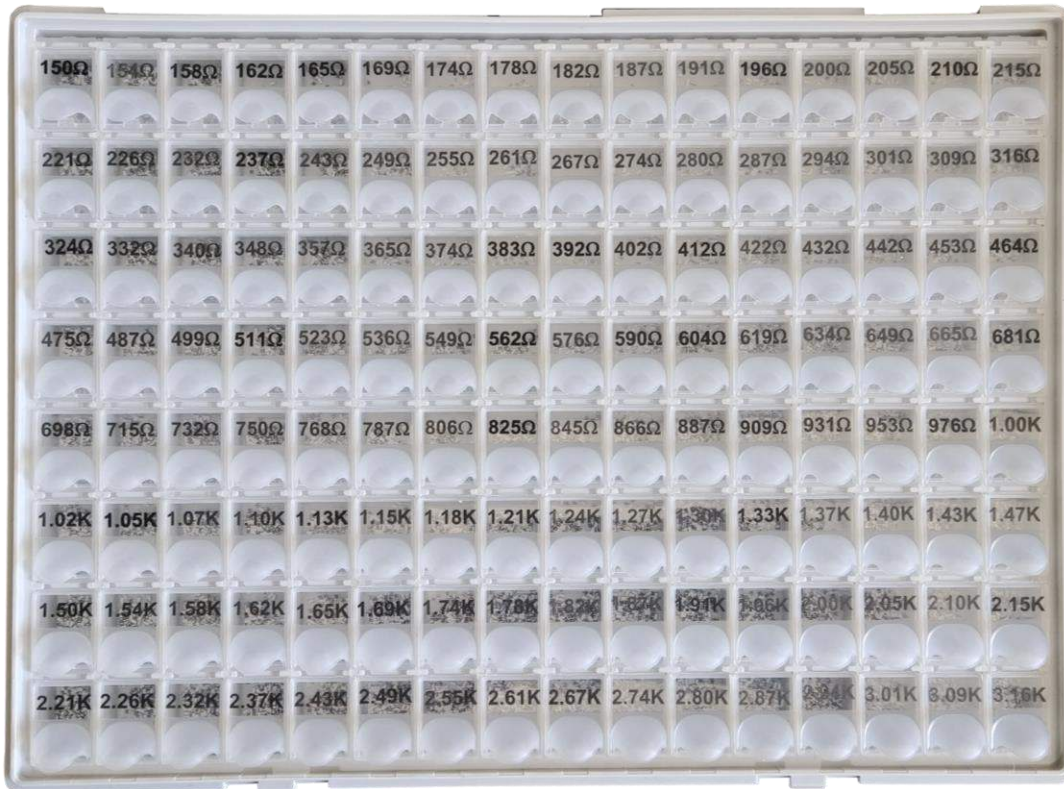


Figure 7. 510 Value Resistor Kit 4-2 Bin Layout



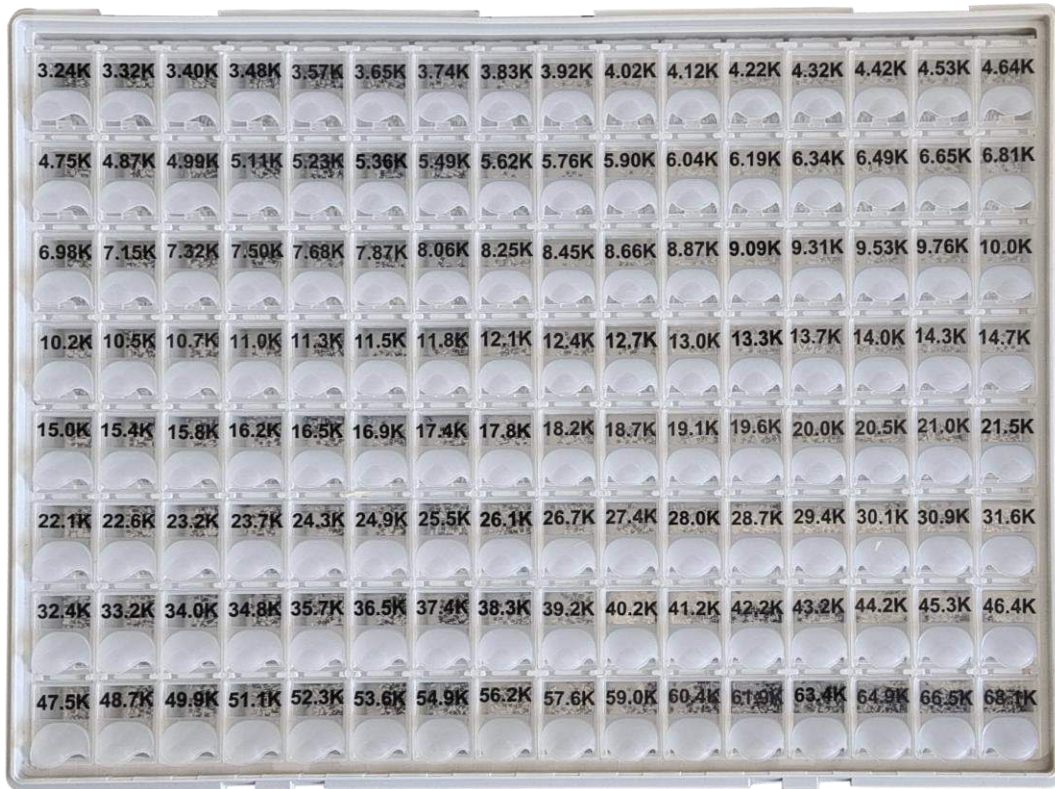


Figure 8. 510 Value Resistor Kit 4-3 Bin Layout

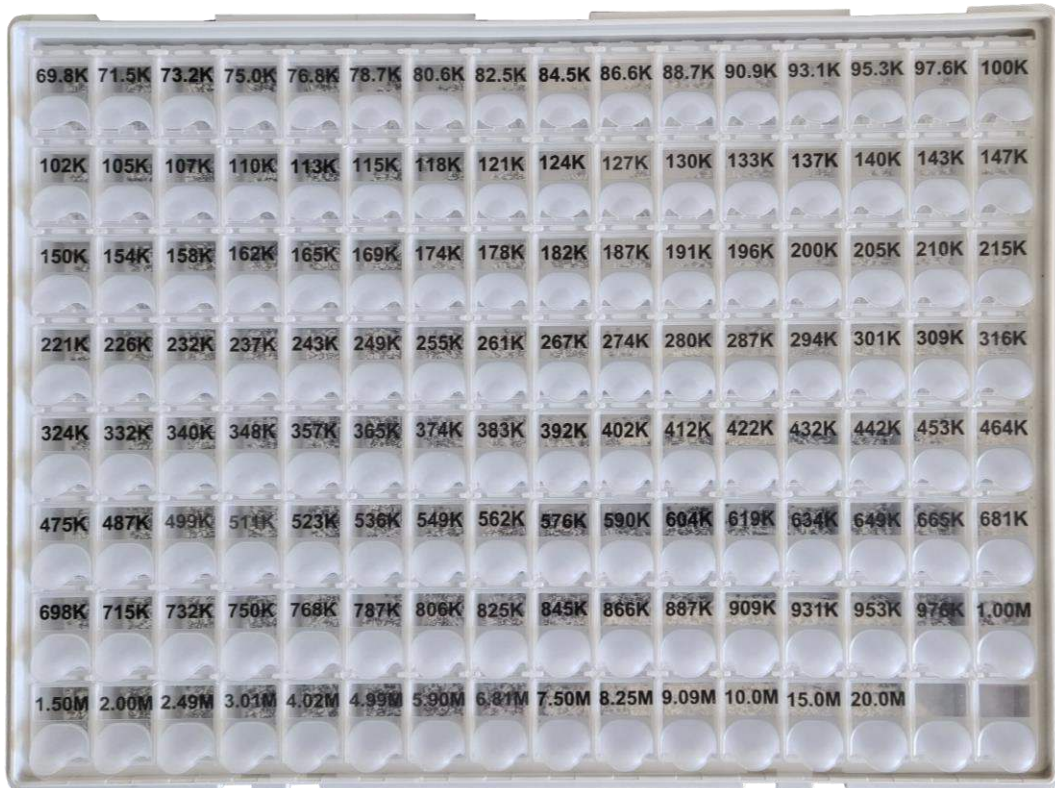


Figure 9. 510 Value Resistor Kit 4-4 Bin Layout

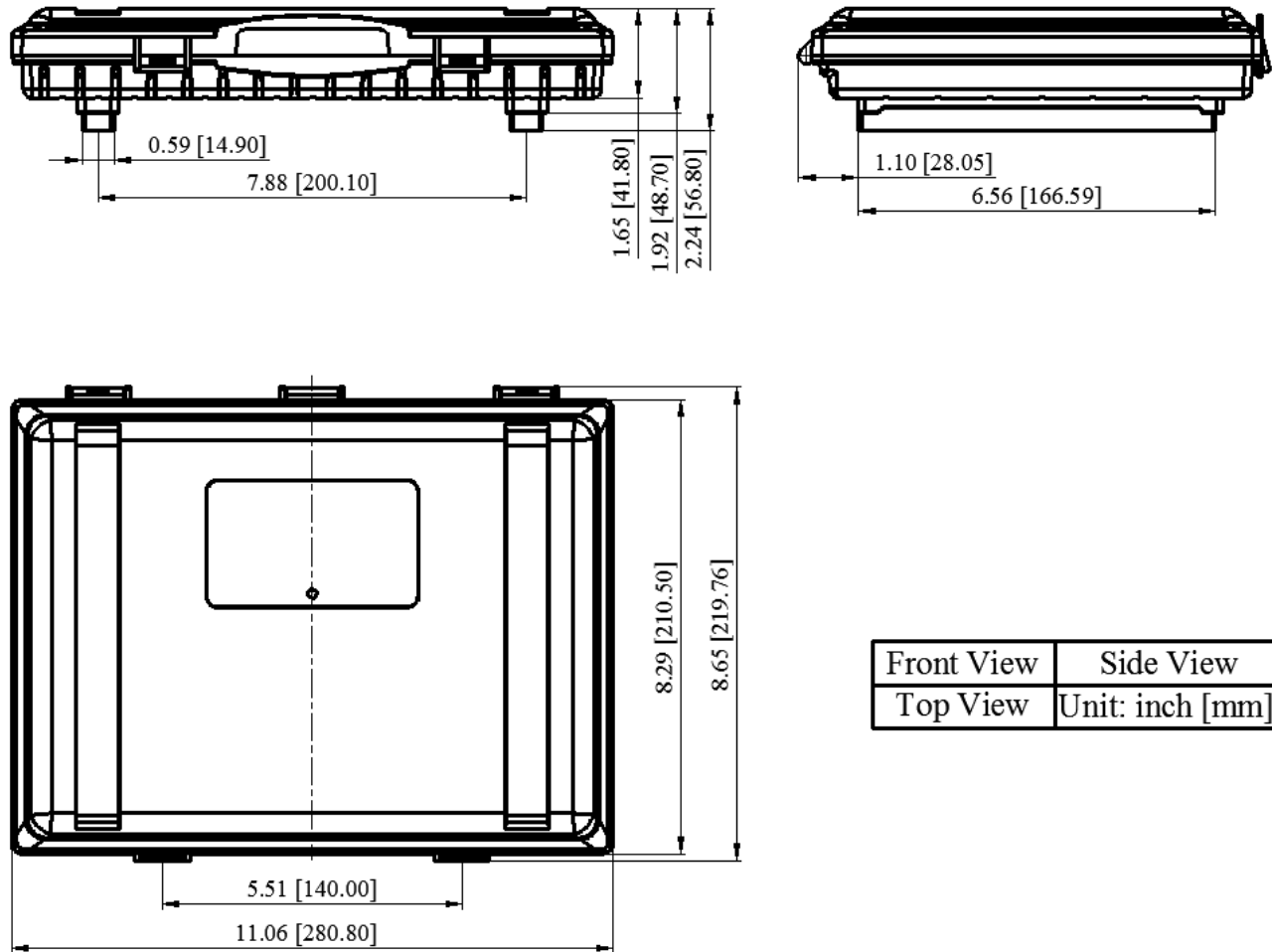
**DIMENSIONS**


Figure 10. Outlines Dimensions

**NOTICE**

1. It is important to carefully read and follow the warnings, cautions, and product-specific notes provided with electronic components. These instructions are designed to ensure the safe and proper use of the component and to prevent damage to the component or surrounding equipment. Failure to follow these instructions could result in malfunction or failure of the component, damage to surrounding equipment, or even injury or harm to individuals. Always take the necessary precautions and seek professional assistance if unsure about proper use or handling of electronic components.
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9. ATI retains ownership of all rights for special technologies, techniques, and designs for its products and projects, as well as any modifications, improvements, and inventions made by ATI.
10. Please note that despite operating the passive electronic components as specified, malfunctions or failures before the end of their usual service life may still occur in individual cases due to the current state of the art. Therefore, in customer applications that require a high level of operational safety, especially those in which the malfunction or failure of a passive electronic component could pose a threat to human life or health (such as in accident prevention or life-saving systems), it is essential to ensure through suitable design of the customer application or other measures taken by the customer (such as the installation of protective circuitry or redundancy) that no injury or damage is sustained by third parties in the event of a passive electronic component malfunction or failure.