

Figure 1. Dimensions



Figure 2A.



Figure 2B.



Figure 2C.

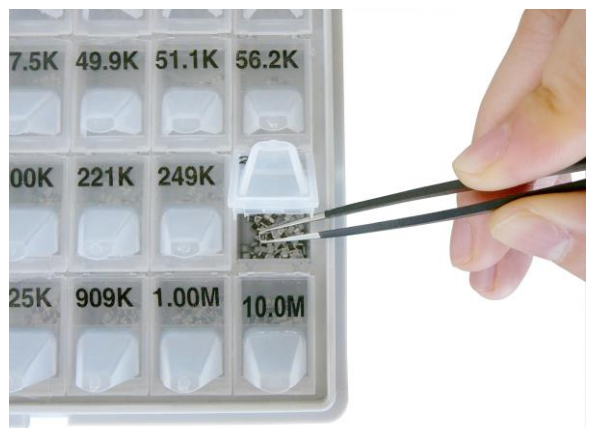


Figure 2D.

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 2.49Ω , while the original E-24 value is 2.4Ω .

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

www.smtzone.com

E-mail us: 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 | 1Ω to 10MΩ 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 | 1Ω to 10MΩ 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 | 1Ω to 10MΩ 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 | 1Ω to 10MΩ 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 ₁ | I ₂ | 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 |

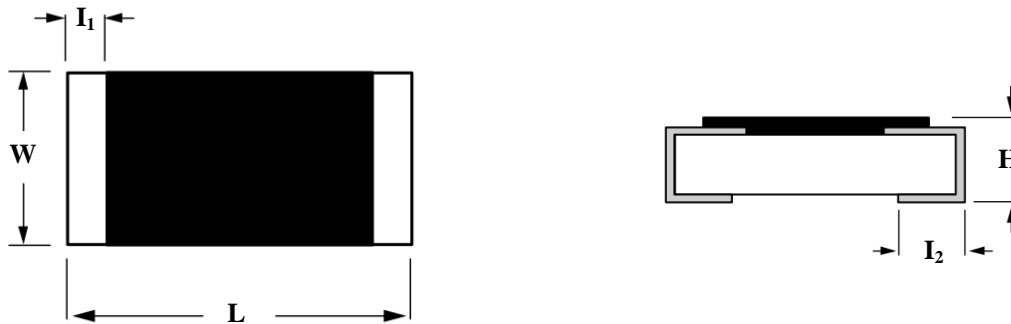


Figure 3. Resistor Dimensions

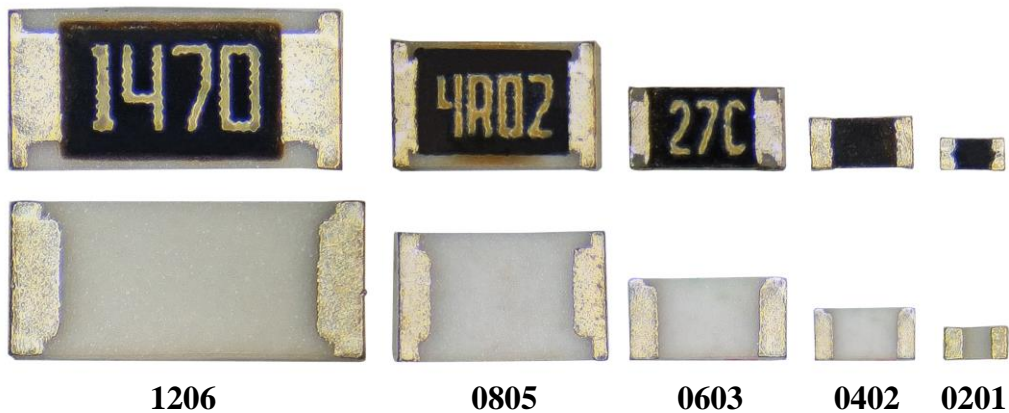


Figure 4. Resistor Marking Code

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

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

SZ: SMTZone.com, our own online store, no commission fee.

AS: 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  |
| | 510 Values | R04E96-50 50PCs/Value  | R06E96-50 50PCs/Value  | R09E96-50 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 & 0805 use 4 digit marking. 0603 use 3 digit marking. 0402 & 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 | 0R1 | | 1.00 | 1R00 | 01Y | 10.0 | 10R0 | 01X | 100 | 1000 | 01A | 1.00k | 1001 | 01B | 10.0k | 1002 | 01C | 100k | 1003 | 01D | 1.00M | 1004 | 01E |
| | | | 0.0 | 0 | | 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 | | | |
| | | | | | | 11.0 | 11R0 | 05X | 110 | 1100 | 05A | 1.10k | 1101 | 05B | 11.0k | 1102 | 05C | 110k | 1103 | 05D | | | |
| | | | | | | 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 | | | |
| | | | | | | 12.1 | 12R1 | 09X | 121 | 1210 | 09A | 1.21k | 1211 | 09B | 12.1k | 1212 | 09C | 121k | 1213 | 09D | | | |
| | | | | | | 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 | | | |
| | | | | | | 13.0 | 13R0 | 12X | 130 | 1300 | 12A | 1.30k | 1301 | 12B | 13.0k | 1302 | 12C | 130k | 1303 | 12D | | | |
| | | | | | | 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 | 1R50 | 18Y | 15.0 | 15R0 | 18X | 150 | 1500 | 18A | 1.50k | 1501 | 18B | 15.0k | 1502 | 18C | 150k | 1503 | 18D | 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 | | | |
| | | | | | | 16.2 | 16R2 | 21X | 162 | 1620 | 21A | 1.62k | 1621 | 21B | 16.2k | 1622 | 21C | 162k | 1623 | 21D | | | |
| | | | | | | 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 | | | |
| | | | | | | 18.2 | 18R2 | 26X | 182 | 1820 | 26A | 1.82k | 1821 | 26B | 18.2k | 1822 | 26C | 182k | 1823 | 26D | | | |
| | | | | | | 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 | 2R00 | 30Y | 20.0 | 20R0 | 30X | 200 | 2000 | 30A | 2.00k | 2001 | 30B | 20.0k | 2002 | 30C | 200k | 2003 | 30D | 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 | | | |
| | | | | | | 22.1 | 22R1 | 34X | 221 | 2210 | 34A | 2.21k | 2211 | 34B | 22.1k | 2212 | 34C | 221k | 2213 | 34D | | | |
| | | | | | | 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, 249k, 2.49M, 3.01, 30.1, 301, 3.01k, 301k, 3.01M, 4.02, 40.2, 402, 4.02k, 402k, 4.02M, 0.50, 49.9, 499, 4.99k, 499k, 4.99M, 5.90, 59.0, 590, 5.90k, 590k, 5.90M.



| 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 | 6R81 | 81Y | 681 | 6810 | 81A | 6.81k | 6811 | 81B | 68.1k | 6812 | 81C | 681k | 6813 | 81D |
| | | | 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 | 7R50 | 85Y | 750 | 7500 | 85A | 7.50k | 7501 | 85B | 75.0k | 7502 | 85C | 750k | 7503 | 85D |
| | | | 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 | 8R25 | 89Y | 825 | 8250 | 89A | 8.25k | 8251 | 89B | 82.5k | 8252 | 89C | 825k | 8253 | 89D |
| | | | 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 | 9R09 | 93Y | 909 | 9090 | 93A | 9.09k | 9091 | 93B | 90.9k | 9092 | 93C | 909k | 9093 | 93D |
| | | | 93.1 | 93R1 | 94X | 931 | 9310 | 94A | 9.31k | 9311 | 94B | 93.1k | 9312 | 94C | 931k | 9313 | 94D |
| | | | 95.3 | 95R3 | 95X | 953 | 9530 | 95A | 9.53k | 9531 | 95B | 95.3k | 9532 | 95C | 953k | 9533 | 95D |
| | | | 97.6 | 97R6 | 96X | 976 | 9760 | 96A | 9.76k | 9761 | 96B | 97.6k | 9762 | 96C | 976k | 9763 | 96D |

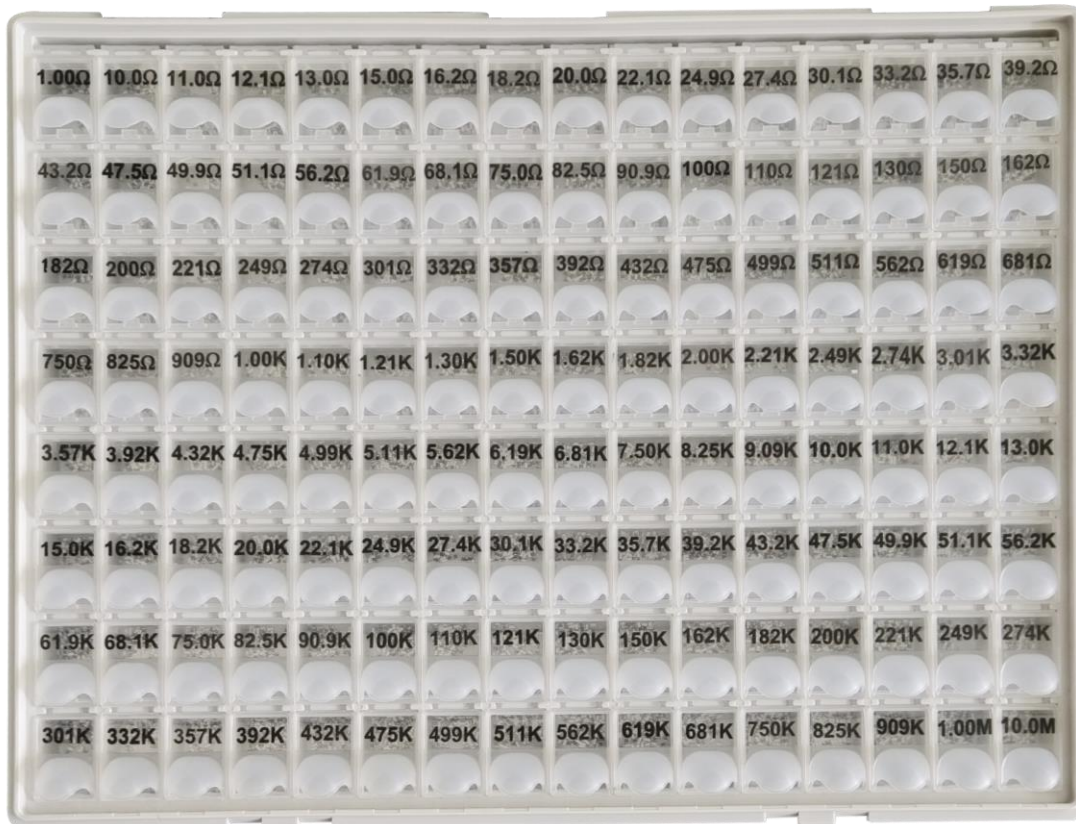


Figure 5. 128 Value Resistor Kit Bin Layout

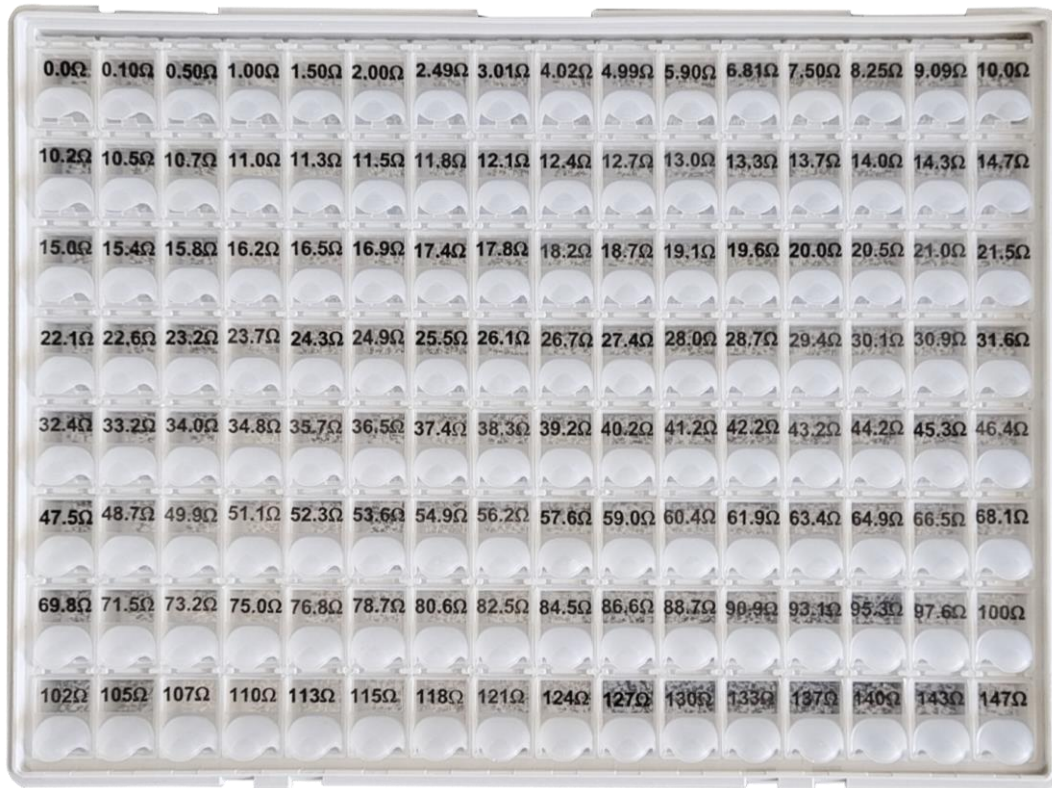


Figure 6. 510 Value Resistor Kit 4-1 Bin Layout

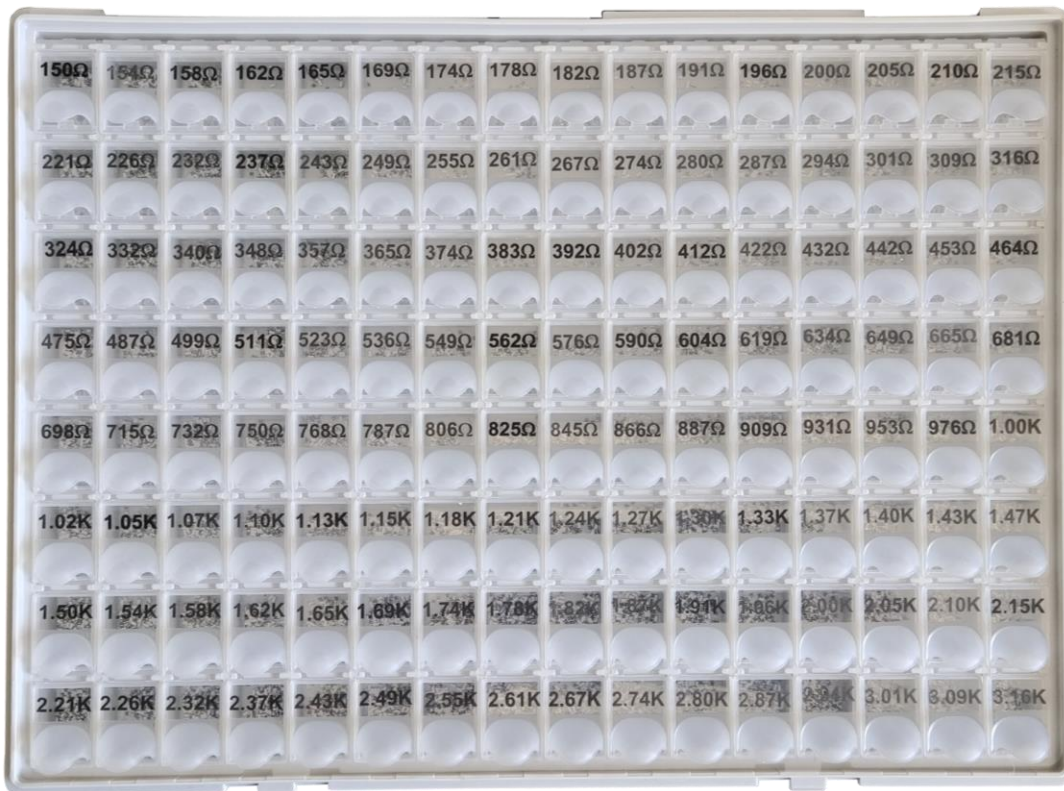


Figure 7. 510 Value Resistor Kit 4-2 Bin Layout

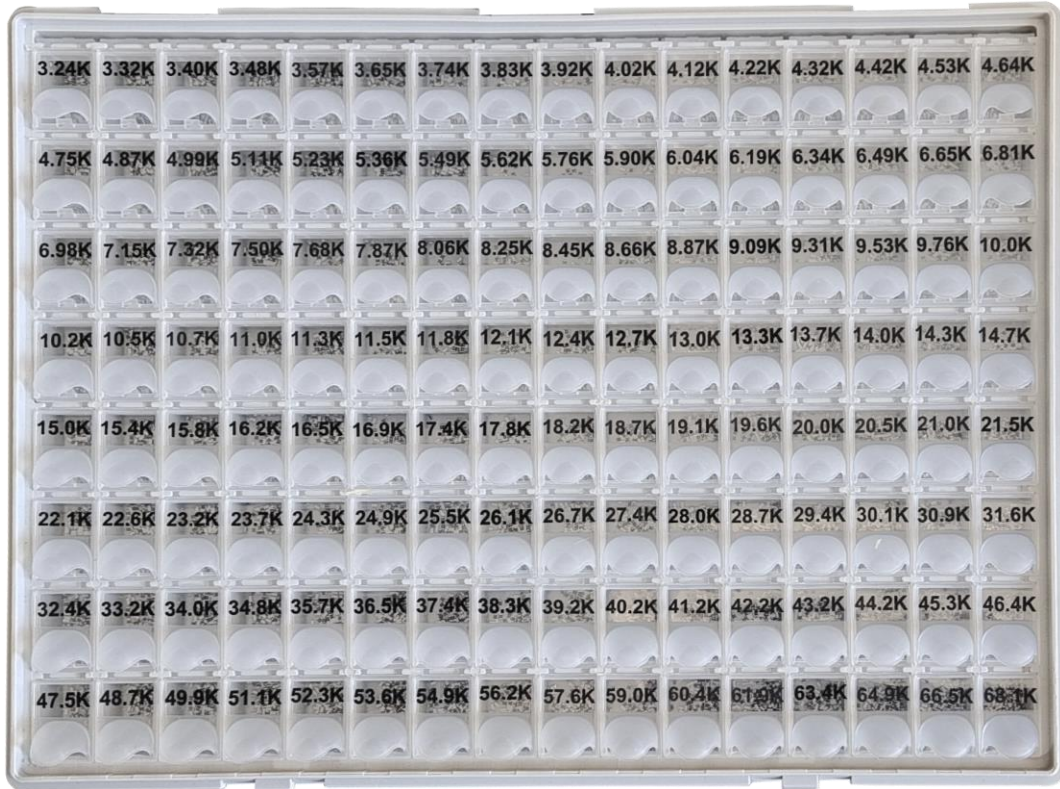


Figure 8. 510 Value Resistor Kit 4-3 Bin Layout

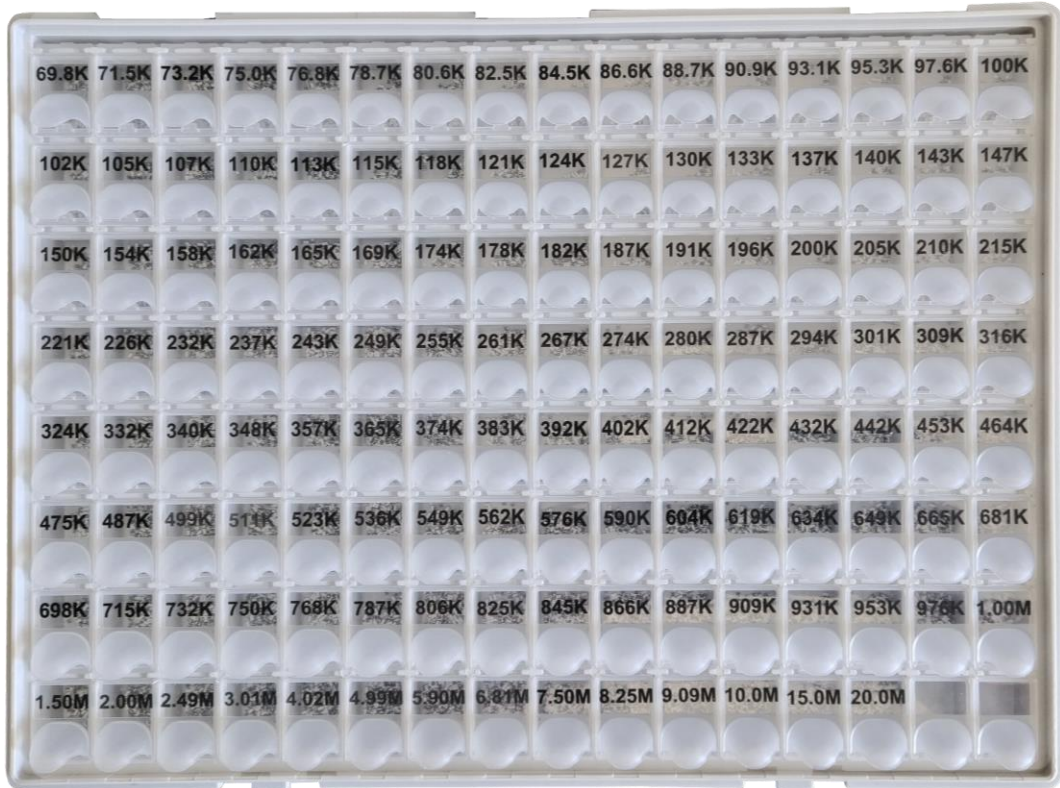


Figure 9. 510 Value Resistor Kit 4-4 Bin Layout

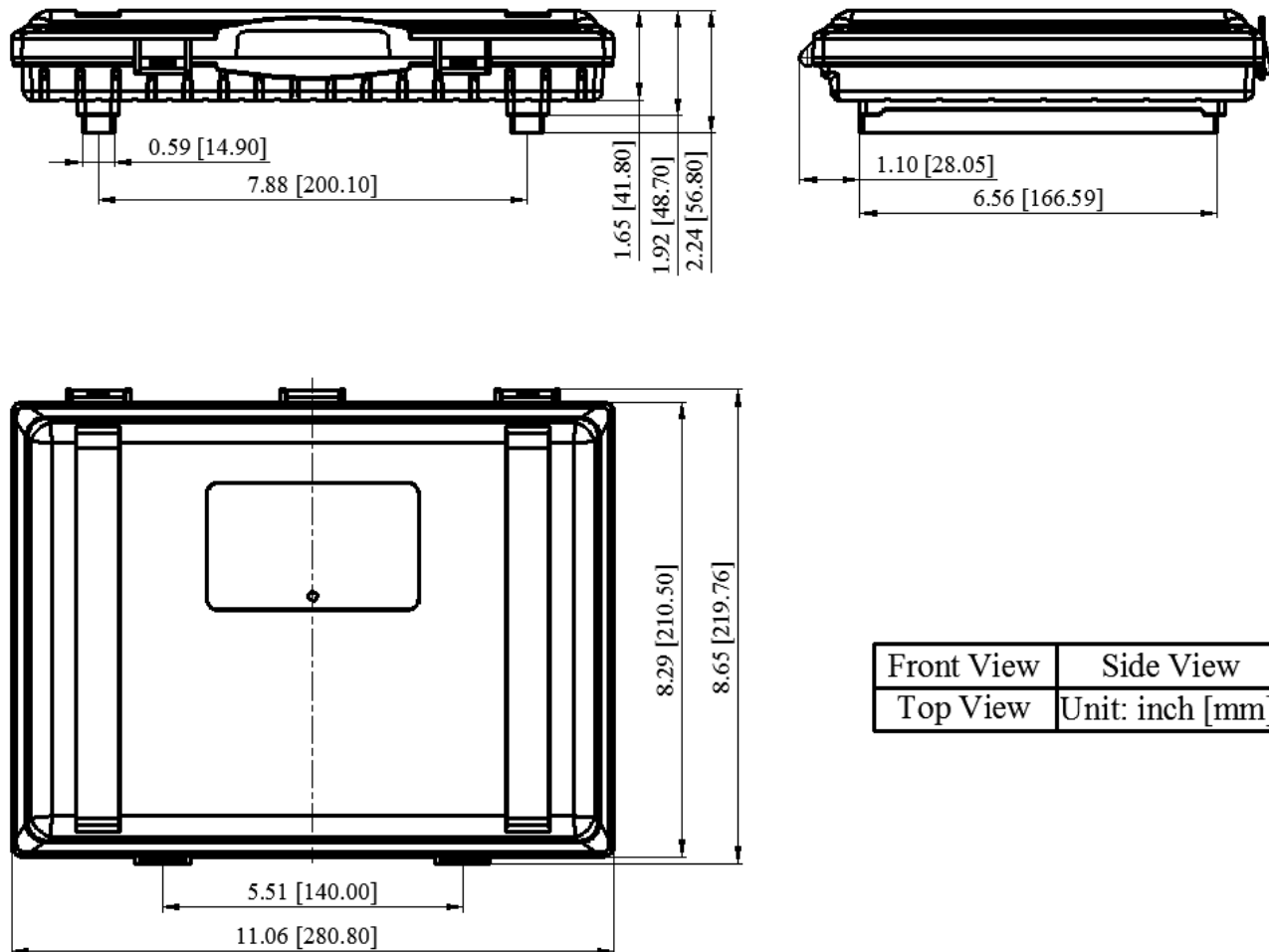
DIMENSIONS


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.
2. Please note that the products and specifications described in this publication are subject to change without prior notice as we continuously improve our products. Therefore, we recommend checking the product descriptions and specifications before placing an order to ensure that they are still applicable. We also reserve the right to discontinue the production and delivery of certain products, which means that not all products named in this publication may always be available.
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exchanged free of charge.

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8. ATI's publication of information regarding third-party products or services does not constitute approval, warranty, or endorsement.
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.