



## MULTILAYER CERAMIC CHIP CAPACITORS



### CKC Series Commercial Grade 4 in 1 Array

Type:

CKCL44 [EIA CC0805]  
CKCA43 [EIA CC1206]

Issue date:  
Dec 2014



## REMINDERS

Please read before using this product

### SAFETY REMINDERS



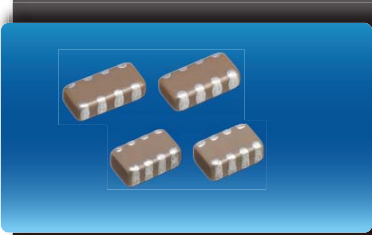
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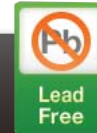
(Example)

| Catalog Issued date    | Catalog Number      | Item Description (On Delivery Label) |
|------------------------|---------------------|--------------------------------------|
| Prior to January 2013  | C1608C0G1E103J      | C1608C0G1E103JT000N                  |
| January 2013 and Later | C1608C0G1E103J080AA | C1608C0G1E103JT000N                  |



## CKC Series 4in1 Array Capacitors

Type: CKCL44 [EIA CC0805], CKCA43 [EIA CC1206]



### Features



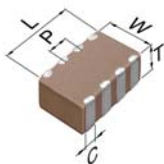
- Multiple capacitors are fitted in a single product, contributing to reduced installation costs.
- The electrostatic capacity range and shape are designed to meet the demands of the cellular phone market.
- Unique electrode construction reduces crosstalk.

### Applications



- Cellular telephone interface
- Interface cable circuit
- PC and peripherals
- CPU bus line
- High frequency circuit
- Noise bypass circuit

### Shape & Dimensions



|   |                  |
|---|------------------|
| L | Body Length      |
| W | Body Width       |
| T | Body Height      |
| C | Terminal Width   |
| P | Terminal Spacing |

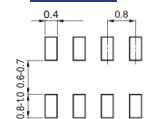
### PC Board Pattern



#### CKCL44



#### CKCA43



Dimensions in mm



Catalog Number Construction

## CKC • A43 • X5R • 0J • 105 • M • 100 • A • A

#### Series Name

#### Dimensions L x W (mm)

| Code | Length      | Width       |
|------|-------------|-------------|
| L44  | 2.00 ± 0.15 | 1.25 ± 0.15 |
| A43  | 3.20 ± 0.20 | 1.60 ± 0.15 |

#### Temperature Characteristics

| Temperature Characteristics | Temperature Coefficient or Capacitance Change | Temperature Range |
|-----------------------------|---|-------------------|
| C0G                         | 0±30 ppm/°C                                   | -55 to +125°C     |
| CH                          | 0±60 ppm/°C                                   | -25 to +85°C      |
| JB                          | ±10%  | -25 to +85°C      |
| X5R                         | ±15%  | -55 to +85°C      |
| X7R                         | ±15%  | -55 to +125°C     |

#### Rated Voltage (DC)

| Code | Voltage (DC) |
|------|--------------|
| 0J   | 6.3V         |
| 1A   | 10V          |
| 1C   | 16V          |
| 1E   | 25V          |
| 1H   | 50V          |

#### Nominal Capacitance (pF)

The capacitance is expressed in three digit codes and in units of pico Farads (pF). The first and second digits identify the first and second significant figures of the capacitance. The third digit identifies the multiplier. R designates a decimal point.

Ex. 0R2 = 0.2pF; 103 = 10,000pF; 105 = 1,000,000pF = 1,000nF = 1µF

#### Capacitance Tolerance

| Code | Tolerance |
|------|-----------|
| F    | ± 1pF     |
| K    | ± 10%     |
| M    | ± 20%     |

#### Nominal Thickness

| Code | Thickness |
|------|-----------|
| 085  | 0.85 mm   |
| 100  | 1.00 mm   |

#### Packaging Style

| Code | Style                   |
|------|-------------------------|
| A    | 178 mm Reel, 4 mm Pitch |

#### Special Reserved Code

| Code | Description       |
|------|-------------------|
| A    | TDK Internal Code |



## Capacitance Range Chart

## CKCL44(C2012) [EIA CC0805]

### Capacitance Range Chart

Temperature Characteristics: C0G ( $0 \pm 30\text{ppm}/^\circ\text{C}$ ), CH ( $0 \pm 60\text{ppm}/^\circ\text{C}$ ), JB ( $\pm 10\%$ ), X5R ( $\pm 15\%$ ), X7R ( $\pm 15\%$ )  
 Rated Voltage: 50V (1H), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J)

| Capacitance (pF) | Code | Tolerance                            | C0G      |          | JB       |          |          |          |           |  |
|------------------|------|--------------------------------------|----------|----------|----------|----------|----------|----------|-----------|--|
|                  |      |                                      | 1H (50V) | 1H (50V) | 1H (50V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) |  |
| 10               | 100  | F: $\pm 1\text{pF}$<br>K: $\pm 10\%$ | ■        | ■        |          |          |          |          |           |  |
| 15               | 150  |                                      |          |          |          |          |          |          |           |  |
| 22               | 220  |                                      |          |          |          |          |          |          |           |  |
| 33               | 330  |                                      |          |          |          |          |          |          |           |  |
| 47               | 470  |                                      |          |          |          |          |          |          |           |  |
| 68               | 680  |                                      |          |          |          |          |          |          |           |  |
| 100              | 101  |                                      |          |          |          |          |          |          |           |  |
| 150              | 151  |                                      |          |          |          |          |          |          |           |  |
| 220              | 221  |                                      |          |          |          | ■        |          |          |           |  |
| 470              | 471  |                                      |          |          |          |          |          |          |           |  |
| 1,000            | 102  |                                      |          |          |          |          |          |          |           |  |
| 2,200            | 222  |                                      |          |          |          |          |          |          |           |  |
| 4,700            | 472  |                                      |          |          |          |          |          |          |           |  |
| 10,000           | 103  |                                      |          |          |          |          | ■        |          |           |  |
| 22,000           | 223  |                                      |          |          |          |          |          | ■        |           |  |
| 47,000           | 473  |                                      |          |          |          |          |          |          | ■         |  |
| 100,000          | 104  |                                      |          |          |          |          |          |          | ■         |  |

| Capacitance (pF) | Code | Tolerance     | X5R      |          |          |          |           | X7R      |          |          |
|------------------|------|---------------|----------|----------|----------|----------|-----------|----------|----------|----------|
|                  |      |               | 1H (50V) | 1E (25V) | 1C (16V) | 1A (10V) | 0J (6.3V) | 1H (50V) | 1E (25V) | 1C (16V) |
| 220              | 221  | M: $\pm 20\%$ | ■        |          |          |          |           | ■        |          |          |
| 470              | 471  |               |          |          |          |          |           |          |          |          |
| 1,000            | 102  |               |          |          |          |          |           |          |          |          |
| 2,200            | 222  |               |          |          |          |          |           |          |          |          |
| 4,700            | 472  |               |          |          |          |          |           |          |          |          |
| 10,000           | 103  |               |          |          | ■        |          |           |          | ■        |          |
| 22,000           | 223  |               |          |          |          | ■        |           |          |          | ■        |
| 47,000           | 473  |               |          |          |          |          | ■         |          |          |          |
| 100,000          | 104  |               |          |          |          |          | ■         |          |          |          |

Standard Thickness

■ 0.85 mm



## Capacitance Range Chart

## CKCA43(C3216) [EIA CC1206]

### Capacitance Range Chart

Temperature Characteristics: C0G ( $0 \pm 30\text{ppm}/^\circ\text{C}$ ), CH ( $0 \pm 60\text{ppm}/^\circ\text{C}$ ), JB ( $\pm 10\%$ ), X5R ( $\pm 15\%$ ), X7R ( $\pm 15\%$ )  
 Rated Voltage: 50V (1H), 25V (1E), 16V (1C), 10V (1A), 6.3V (0J)

| Capacitance (pF) | Code | Tolerance                            | C0G      | CH       |
|------------------|------|--------------------------------------|----------|----------|
|                  |      |                                      | 1H (50V) | 1H (50V) |
| 10               | 100  | F: $\pm 1\text{pF}$<br>K: $\pm 10\%$ |          |          |
| 15               | 150  |                                      |          |          |
| 22               | 220  |                                      |          |          |
| 33               | 330  |                                      |          |          |
| 47               | 470  |                                      |          |          |
| 68               | 680  |                                      |          |          |
| 100              | 101  |                                      |          |          |
| 150              | 151  |                                      |          |          |
| 220              | 221  |                                      |          |          |
| 330              | 331  |                                      |          |          |
| 470              | 471  |                                      |          |          |
| 680              | 681  |                                      |          |          |
| 1,000            | 102  |                                      |          |          |

| Capacitance (pF) | Code | Tolerance     | JB       |          |          |           | X5R      |          |          |           | X7R      |          |          |
|------------------|------|---------------|----------|----------|----------|-----------|----------|----------|----------|-----------|----------|----------|----------|
|                  |      |               | 1H (50V) | 1E (25V) | 1C (16V) | 0J (6.3V) | 1H (50V) | 1E (25V) | 1C (16V) | 0J (6.3V) | 1H (50V) | 1E (25V) | 1C (16V) |
| 470              | 471  | M: $\pm 20\%$ |          |          |          |           |          |          |          |           |          |          |          |
| 1,000            | 102  |               |          |          |          |           |          |          |          |           |          |          |          |
| 2,200            | 222  |               |          |          |          |           |          |          |          |           |          |          |          |
| 4,700            | 472  |               |          |          |          |           |          |          |          |           |          |          |          |
| 10,000           | 103  |               |          |          |          |           |          |          |          |           |          |          |          |
| 22,000           | 223  |               |          |          |          |           |          |          |          |           |          |          |          |
| 47,000           | 473  |               |          |          |          |           |          |          |          |           |          |          |          |
| 100,000          | 104  |               |          |          |          |           |          |          |          |           |          |          |          |
| 1,000,000        | 105  |               |          |          |          |           |          |          |          |           |          |          |          |

Standard Thickness

1.00 mm



## Capacitance Range Table

### Class 1 (Temperature Compensating)

Temperature Characteristics: C0G (-55 to +125°C, 0±30 ppm/°C)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number         |                        |                        |                        |
|-------------|------|----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
|             |      |                |                       | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V | Rated Voltage Edc: 10V |
| 10 pF       | 2012 | 0.85 ± 0.15    | ± 1%                  | CKCL44C0G1H100F085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 1%                  | CKCA43C0G1H100F100AA   |                        |                        |                        |
| 15 pF       | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44C0G1H150K085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43C0G1H150K100AA   |                        |                        |                        |
| 22 pF       | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44C0G1H220K085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 10%                 | CKCA43C0G1H220K100AA   |                        |                        |                        |
| 33 pF       | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44C0G1H330K085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43C0G1H330K100AA   |                        |                        |                        |
| 47 pF       | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44C0G1H470K085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 10%                 | CKCA43C0G1H470K100AA   |                        |                        |                        |
| 68 pF       | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44C0G1H680K085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43C0G1H680K100AA   |                        |                        |                        |
| 100 pF      | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44C0G1H101K085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 10%                 | CKCA43C0G1H101K100AA   |                        |                        |                        |
| 150 pF      | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44C0G1H151K085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43C0G1H151K100AA   |                        |                        |                        |
| 220 pF      | 3216 | 1.00 ± 0.15    | ± 10%                 | CKCA43C0G1H221K100AA   |                        |                        |                        |
| 330 pF      | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43C0G1H331K100AA   |                        |                        |                        |
| 470 pF      | 3216 | 1.00 ± 0.15    | ± 10%                 | CKCA43C0G1H471K100AA   |                        |                        |                        |
| 680 pF      | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43C0G1H681K100AA   |                        |                        |                        |
| 1 nF        | 3216 | 1.00 ± 0.15    | ± 10%                 | CKCA43C0G1H102K100AA   |                        |                        |                        |

### Class 1 (Temperature Compensating)

Temperature Characteristics: CH (-25 to +85°C, 0±60 ppm/°C)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number         |                        |                        |                        |
|-------------|------|----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
|             |      |                |                       | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V | Rated Voltage Edc: 10V |
| 10 pF       | 2012 | 0.85 ± 0.15    | ± 1%                  | CKCL44CH1H100F085AA    |                        |                        |                        |
|             | 3216 | 1.00 ± 0.10    | ± 1%                  | CKCA43CH1H100F100AA    |                        |                        |                        |
| 15 pF       | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44CH1H150K085AA    |                        |                        |                        |
|             | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43CH1H150K100AA    |                        |                        |                        |
| 22 pF       | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44CH1H220K085AA    |                        |                        |                        |
|             | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43CH1H220K100AA    |                        |                        |                        |
| 33 pF       | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44CH1H330K085AA    |                        |                        |                        |
|             | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43CH1H330K100AA    |                        |                        |                        |
| 47 pF       | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44CH1H470K085AA    |                        |                        |                        |
|             | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43CH1H470K100AA    |                        |                        |                        |
| 68 pF       | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44CH1H680K085AA    |                        |                        |                        |
|             | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43CH1H680K100AA    |                        |                        |                        |
| 100 pF      | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44CH1H101K085AA    |                        |                        |                        |
|             | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43CH1H101K100AA    |                        |                        |                        |
| 150 pF      | 2012 | 0.85 ± 0.15    | ± 10%                 | CKCL44CH1H151K085AA    |                        |                        |                        |
|             | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43CH1H151K100AA    |                        |                        |                        |
| 220 pF      | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43CH1H221K100AA    |                        |                        |                        |
| 330 pF      | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43CH1H331K100AA    |                        |                        |                        |
| 470 pF      | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43CH1H471K100AA    |                        |                        |                        |
| 680 pF      | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43CH1H681K100AA    |                        |                        |                        |
| 1 nF        | 3216 | 1.00 ± 0.10    | ± 10%                 | CKCA43CH1H102K100AA    |                        |                        |                        |



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: JB (-25 to +85°C, ±10%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number         |                        |                        |                        |
|-------------|------|----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
|             |      |                |                       | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V | Rated Voltage Edc: 10V |
| 220 pF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44JB1H221M085AA    |                        |                        |                        |
| 470 pF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44JB1H471M085AA    |                        |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43JB1H471M100AA    |                        |                        |                        |
| 1 nF        | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44JB1H102M085AA    |                        |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43JB1H102M100AA    |                        |                        |                        |
| 2.2 nF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44JB1H222M085AA    |                        |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43JB1H222M100AA    |                        |                        |                        |
| 4.7 nF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44JB1H472M085AA    |                        |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43JB1H472M100AA    |                        |                        |                        |
| 10 nF       | 2012 | 0.85 ± 0.15    | ± 20%                 |                        | CKCL44JB1E103M085AA    |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43JB1H103M100AA    |                        |                        |                        |
| 22 nF       | 2012 | 0.85 ± 0.15    | ± 20%                 |                        |                        | CKCL44JB1C223M085AA    |                        |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43JB1H223M100AA    |                        |                        |                        |
| 47 nF       | 2012 | 0.85 ± 0.15    | ± 20%                 |                        |                        |                        | CKCL44JB1A473M085AA    |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 |                        | CKCA43JB1E473M100AA    |                        |                        |
| 100 nF      | 2012 | 0.85 ± 0.15    | ± 20%                 |                        |                        |                        | CKCL44JB1C104M100AA    |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 |                        |                        | CKCA43JB1C104M100AA    |                        |

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |
|-------------|------|----------------|-----------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 6.3V |
| 100 nF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44JB0J104M085AA     |
| 1 µF        | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43JB0J105M100AA     |

### Class 2 (Temperature Stable)

Temperature Characteristics: X5R (-55 to +85°C, ±15%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number         |                        |                        |                        |
|-------------|------|----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
|             |      |                |                       | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V | Rated Voltage Edc: 10V |
| 220 pF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44X5R1H221M085AA   |                        |                        |                        |
| 470 pF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44X5R1H471M085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43X5R1H471M100AA   |                        |                        |                        |
| 1 nF        | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44X5R1H102M085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43X5R1H102M100AA   |                        |                        |                        |
| 2.2 nF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44X5R1H222M085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43X5R1H222M100AA   |                        |                        |                        |
| 4.7 nF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44X5R1H472M085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43X5R1H472M100AA   |                        |                        |                        |
| 10 nF       | 2012 | 0.85 ± 0.15    | ± 20%                 |                        | CKCL44X5R1E103M085AA   |                        |                        |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43X5R1H103M100AA   |                        |                        |                        |
| 22 nF       | 2012 | 0.85 ± 0.15    | ± 20%                 |                        |                        | CKCL44X5R1C223M085AA   |                        |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43X5R1H223M100AA   |                        |                        |                        |
| 47 nF       | 2012 | 0.85 ± 0.15    | ± 20%                 |                        |                        |                        | CKCL44X5R1A473M085AA   |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 |                        | CKCA43X5R1E473M100AA   |                        |                        |
| 100 nF      | 2012 | 0.85 ± 0.15    | ± 20%                 |                        |                        |                        | CKCL44X5R1C104M100AA   |
|             | 3216 | 1.00 ± 0.15    | ± 20%                 |                        |                        | CKCA43X5R1C104M100AA   |                        |
| 1 µF        | 3216 | 1.00 ± 0.15    | ± 20%                 |                        |                        |                        |                        |

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number          |
|-------------|------|----------------|-----------------------|-------------------------|
|             |      |                |                       | Rated Voltage Edc: 6.3V |
| 100 nF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44X5R0J104M085AA    |
| 1 µF        | 3216 | 1.00 ± 0.15    | ± 20%                 | CKCA43X5R0J105M100AA    |



## Capacitance Range Table

### Class 2 (Temperature Stable)

Temperature Characteristics: X7R (-55 to +125°C, ±15%)

| Capacitance | Size | Thickness (mm) | Capacitance Tolerance | Catalog Number         |                        |                        |                        |
|-------------|------|----------------|-----------------------|------------------------|------------------------|------------------------|------------------------|
|             |      |                |                       | Rated Voltage Edc: 50V | Rated Voltage Edc: 25V | Rated Voltage Edc: 16V | Rated Voltage Edc: 10V |
| 220 pF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44X7R1H221M085AA   |                        |                        |                        |
| 470 pF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44X7R1H471M085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.30    | ± 20%                 | CKCA43X7R1H471M100AA   |                        |                        |                        |
| 1 nF        | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44X7R1H102M085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.30    | ± 20%                 | CKCA43X7R1H102M100AA   |                        |                        |                        |
| 2.2 nF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44X7R1H222M085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.30    | ± 20%                 | CKCA43X7R1H222M100AA   |                        |                        |                        |
| 4.7 nF      | 2012 | 0.85 ± 0.15    | ± 20%                 | CKCL44X7R1H472M085AA   |                        |                        |                        |
|             | 3216 | 1.00 ± 0.30    | ± 20%                 | CKCA43X7R1H472M100AA   |                        |                        |                        |
| 10 nF       | 2012 | 0.85 ± 0.15    | ± 20%                 |                        | CKCL44X7R1E103M085AA   |                        |                        |
|             | 3216 | 1.00 ± 0.30    | ± 20%                 | CKCA43X7R1H103M100AA   |                        |                        |                        |
| 22 nF       | 2012 | 0.85 ± 0.15    | ± 20%                 |                        |                        | CKCL44X7R1C223M085AA   |                        |
|             | 3216 | 1.00 ± 0.30    | ± 20%                 | CKCA43X7R1H223M100AA   |                        |                        |                        |
| 47 nF       | 3216 | 1.00 ± 0.30    | ± 20%                 |                        | CKCA43X7R1E473M100AA   |                        |                        |
| 100 nF      | 3216 | 1.00 ± 0.30    | ± 20%                 |                        |                        | CKCA43X7R1C104M100AA   |                        |