

## CHQ Series



CHQ Series supports miniaturized devices. Its low inductance, high precision and high Q enables easy impedance matching at both RF and IF circuits and compact high frequency circuit designing.

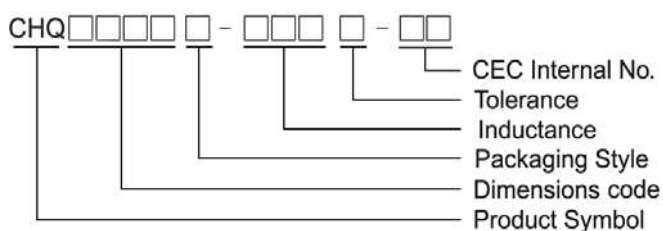
### Features

- Excellent high frequency application
- High Q factor and SRF value
- Miniaturization
- Tight tolerance
- Wide inductance range

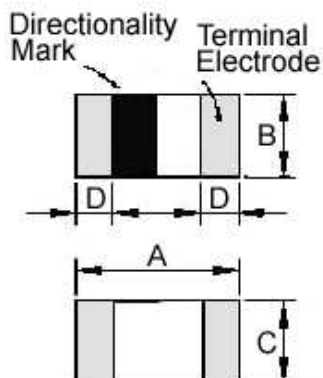
### Applications

- RF matching circuit requiring Q value
- Bluetooth, WLAN, UWB, digital TV tuners and high-frequency circuit and module

### Product Identification



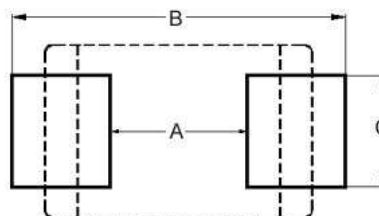
### Shape and Dimensions



Dimensions in mm

| TYPE    | A        | B        | C        | D         |
|---------|----------|----------|----------|-----------|
| CHQ0603 | 0.6±0.03 | 0.3±0.03 | 0.3±0.03 | 0.10±0.05 |

### Recommended Pattern



Dimensions in mm

| TYPE    | A   | B           | C   |
|---------|-----|-------------|-----|
| CHQ0603 | 0.3 | 0.75 ~ 1.05 | 0.3 |

# SMD Ceramic Multilayer Chip Inductors – CHQ Series

## Electrical Characteristics

| Part Number      | Inductance<br>(nH) | Tolerance<br>(±%)    | Q<br>Min | Test<br>Frequency<br>(MHz) | Q Typical  |            |            |            |            | SRF<br>(MHz)<br>Min | DC<br>Resistance<br>(Ω) Max | IDC<br>(mA)<br>Max |
|------------------|--------------------|----------------------|----------|----------------------------|------------|------------|------------|------------|------------|---------------------|-----------------------------|--------------------|
|                  |                    |                      |          |                            | 500<br>MHz | 800<br>MHz | 1.8<br>GHz | 2.0<br>GHz | 2.4<br>GHz |                     |                             |                    |
| CHQ0603T-0N6□-HU | 0.6                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | >35        | >47        | >75        | >80        | >88        | 10000               | 0.06                        | 900                |
| CHQ0603T-0N7□-HU | 0.7                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | >35        | >47        | >75        | >80        | >88        | 10000               | 0.06                        | 900                |
| CHQ0603T-0N8□-HU | 0.8                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | >35        | >47        | >75        | >80        | >88        | 10000               | 0.06                        | 900                |
| CHQ0603T-0N9□-HU | 0.9                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | >35        | >47        | >75        | >80        | >88        | 10000               | 0.06                        | 900                |
| CHQ0603T-1N0□-HU | 1.0                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | >35        | >47        | >75        | >80        | >88        | 10000               | 0.07                        | 850                |
| CHQ0603T-1N1□-HU | 1.1                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | >35        | >47        | >75        | >80        | >88        | 10000               | 0.07                        | 850                |
| CHQ0603T-1N2□-HU | 1.2                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 35         | 47         | 75         | 80         | 88         | 10000               | 0.08                        | 800                |
| CHQ0603T-1N3□-HU | 1.3                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 32         | 43         | 70         | 74         | 82         | 10000               | 0.09                        | 760                |
| CHQ0603T-1N4□-HU | 1.4                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 29         | 39         | 63         | 67         | 75         | 10000               | 0.12                        | 640                |
| CHQ0603T-1N5□-HU | 1.5                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 27         | 36         | 59         | 62         | 69         | 10000               | 0.15                        | 600                |
| CHQ0603T-1N6□-HU | 1.6                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 25         | 33         | 54         | 57         | 63         | 10000               | 0.19                        | 510                |
| CHQ0603T-1N7□-HU | 1.7                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 25         | 32         | 52         | 54         | 61         | 10000               | 0.11                        | 680                |
| CHQ0603T-1N8□-HU | 1.8                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 25         | 32         | 51         | 53         | 59         | 10000               | 0.12                        | 640                |
| CHQ0603T-1N9□-HU | 1.9                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 24         | 31         | 50         | 53         | 58         | 10000               | 0.13                        | 620                |
| CHQ0603T-2N0□-HU | 2.0                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 24         | 31         | 50         | 53         | 58         | 10000               | 0.15                        | 600                |
| CHQ0603T-2N1□-HU | 2.1                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 24         | 31         | 50         | 53         | 58         | 10000               | 0.16                        | 550                |
| CHQ0603T-2N2□-HU | 2.2                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 24         | 31         | 50         | 53         | 58         | 10000               | 0.20                        | 500                |
| CHQ0603T-2N3□-HU | 2.3                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 24         | 31         | 49         | 52         | 58         | 10000               | 0.24                        | 460                |
| CHQ0603T-2N4□-HU | 2.4                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 22         | 28         | 45         | 48         | 53         | 10000               | 0.26                        | 430                |
| CHQ0603T-2N5□-HU | 2.5                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 22         | 29         | 46         | 49         | 54         | 10000               | 0.28                        | 415                |
| CHQ0603T-2N6□-HU | 2.6                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 21         | 27         | 44         | 46         | 51         | 10000               | 0.30                        | 405                |
| CHQ0603T-2N7□-HU | 2.7                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 20         | 26         | 41         | 43         | 48         | 10000               | 0.32                        | 400                |
| CHQ0603T-2N8□-HU | 2.8                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 20         | 26         | 41         | 43         | 47         | 9500                | 0.20                        | 500                |
| CHQ0603T-2N9□-HU | 2.9                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 20         | 26         | 41         | 43         | 47         | 9300                | 0.22                        | 480                |
| CHQ0603T-3N0□-HU | 3.0                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 20         | 26         | 41         | 43         | 47         | 9100                | 0.24                        | 460                |
| CHQ0603T-3N1□-HU | 3.1                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 20         | 26         | 41         | 43         | 47         | 8900                | 0.25                        | 450                |
| CHQ0603T-3N2□-HU | 3.2                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 20         | 26         | 40         | 43         | 47         | 8700                | 0.28                        | 415                |
| CHQ0603T-3N3□-HU | 3.3                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 20         | 26         | 40         | 43         | 47         | 8600                | 0.28                        | 415                |
| CHQ0603T-3N4□-HU | 3.4                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 20         | 25         | 40         | 43         | 47         | 8400                | 0.29                        | 410                |
| CHQ0603T-3N5□-HU | 3.5                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 20         | 25         | 40         | 42         | 46         | 8200                | 0.30                        | 405                |
| CHQ0603T-3N6□-HU | 3.6                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 19         | 25         | 40         | 42         | 46         | 8100                | 0.32                        | 400                |
| CHQ0603T-3N7□-HU | 3.7                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 19         | 25         | 40         | 42         | 46         | 8000                | 0.36                        | 370                |
| CHQ0603T-3N8□-HU | 3.8                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 19         | 25         | 39         | 41         | 45         | 7800                | 0.40                        | 355                |
| CHQ0603T-3N9□-HU | 3.9                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 19         | 25         | 39         | 41         | 45         | 7700                | 0.41                        | 350                |
| CHQ0603T-4N0□-HU | 4.0                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 18         | 28         | 39         | 41         | 45         | 7600                | 0.44                        | 335                |
| CHQ0603T-4N1□-HU | 4.1                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 19         | 25         | 39         | 41         | 45         | 7500                | 0.48                        | 320                |
| CHQ0603T-4N2□-HU | 4.2                | ±0.1nH/±0.2nH/±0.3nH | 14       | 500                        | 18         | 24         | 37         | 39         | 43         | 7300                | 0.48                        | 320                |
| CHQ0603T-4N3□-HU | 4.3                | ±0.2nH/±0.3nH        | 14       | 500                        | 18         | 24         | 37         | 39         | 43         | 6500                | 0.48                        | 320                |
| CHQ0603T-4N6□-HU | 4.6                | ±0.2nH/±0.3nH        | 14       | 500                        | 18         | 24         | 37         | 39         | 42         | 6500                | 0.39                        | 360                |
| CHQ0603T-4N7□-HU | 4.7                | ±0.2nH/±0.3nH        | 14       | 500                        | 19         | 24         | 37         | 39         | 42         | 6400                | 0.42                        | 350                |
| CHQ0603T-5N0□-HU | 5.0                | ±0.2nH/±0.3nH        | 14       | 500                        | 19         | 24         | 37         | 39         | 42         | 6200                | 0.44                        | 335                |
| CHQ0603T-5N1□-HU | 5.1                | ±0.2nH/±0.3nH        | 14       | 500                        | 19         | 24         | 37         | 39         | 42         | 6100                | 0.45                        | 330                |
| CHQ0603T-5N4□-HU | 5.4                | ±0.2nH/±0.3nH        | 14       | 500                        | 18         | 24         | 36         | 38         | 42         | 5900                | 0.49                        | 315                |
| CHQ0603T-5N6□-HU | 5.6                | ±0.2nH/±0.3nH        | 14       | 500                        | 18         | 24         | 36         | 37         | 41         | 5500                | 0.47                        | 325                |
| CHQ0603T-5N9□-HU | 5.9                | ±0.2nH/±0.3nH        | 14       | 500                        | 18         | 23         | 35         | 36         | 39         | 5500                | 0.47                        | 325                |
| CHQ0603T-6N2□-HU | 6.2                | ±0.2nH/±0.3nH        | 14       | 500                        | 18         | 23         | 35         | 36         | 39         | 5100                | 0.52                        | 305                |
| CHQ0603T-6N5□-HU | 6.5                | ±0.2nH/±0.3nH        | 14       | 500                        | 18         | 23         | 35         | 36         | 39         | 5100                | 0.52                        | 305                |
| CHQ0603T-6N8□-HU | 6.8                | 3/5                  | 14       | 500                        | 18         | 23         | 35         | 36         | 39         | 4800                | 0.55                        | 305                |

- Tolerance : B = ± 0.1 nH ; C = ± 0.2 nH ; S = ± 0.3 nH ; H = ± 3 % ; J = ± 5%
- Test Instruments : L/Q : Agilent E4991A      Fixture : Agilent 16197A  
SRF : Agilent E4991A / HP19196C  
RDC : HP4338B/ CH502BC

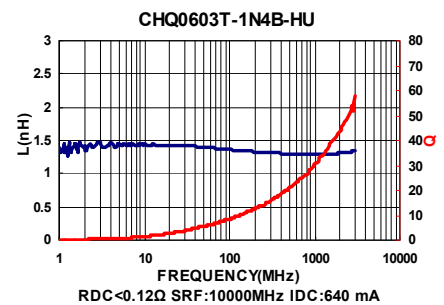
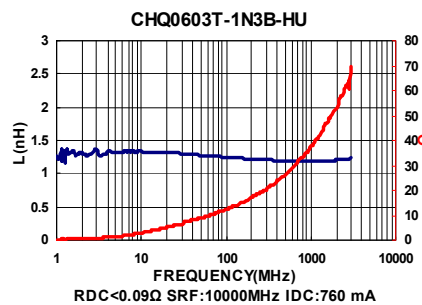
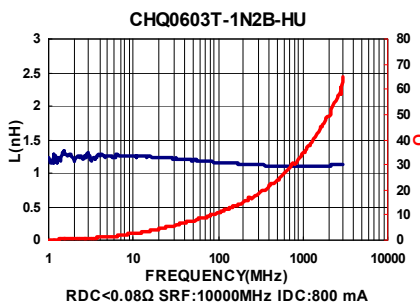
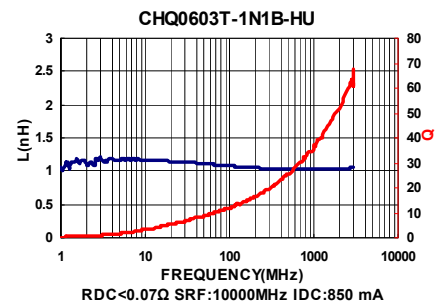
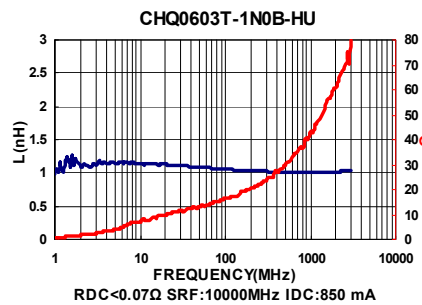
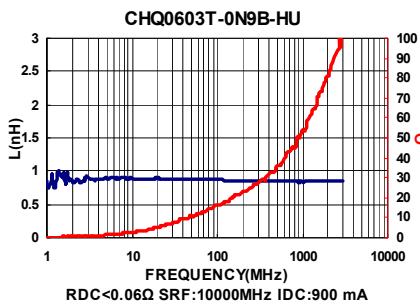
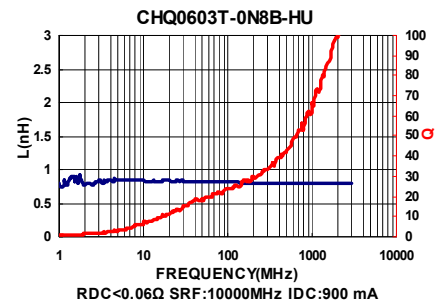
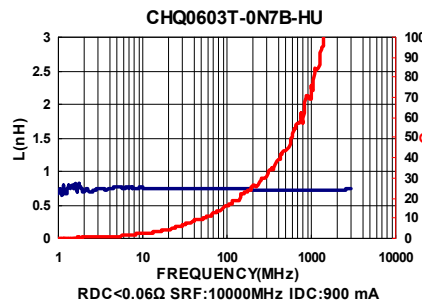
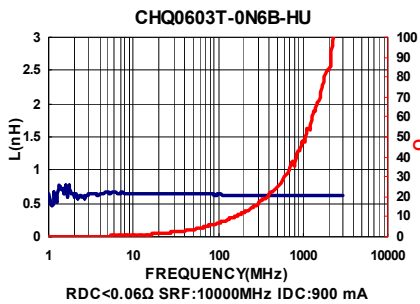
# SMD Ceramic Multilayer Chip Inductors – CHQ Series

## Electrical Characteristics

| Part Number      | Inductance (nH) | Tolerance (±%) | Q Min | Test Frequency (MHz) | Q Typical |         |         |         |         | SRF (MHz) Min | DC Resistance (Ω) Max | IDC (mA) Max |
|------------------|-----------------|----------------|-------|----------------------|-----------|---------|---------|---------|---------|---------------|-----------------------|--------------|
|                  |                 |                |       |                      | 500 MHz   | 800 MHz | 1.8 GHz | 2.0 GHz | 2.4 GHz |               |                       |              |
| CHQ0603T-7N1□-HU | 7.1             | 3/5            | 14    | 500                  | 18        | 23      | 35      | 36      | 39      | 4800          | 0.55                  | 305          |
| CHQ0603T-7N5□-HU | 7.5             | 3/5            | 14    | 500                  | 18        | 23      | 34      | 35      | 38      | 4600          | 0.55                  | 305          |
| CHQ0603T-7N8□-HU | 7.8             | 3/5            | 14    | 500                  | 17        | 22      | 33      | 34      | 36      | 4600          | 0.51                  | 310          |
| CHQ0603T-8N2□-HU | 8.2             | 3/5            | 14    | 500                  | 17        | 22      | 33      | 34      | 36      | 4300          | 0.57                  | 290          |
| CHQ0603T-8N5□-HU | 8.5             | 3/5            | 14    | 500                  | 17        | 22      | 33      | 34      | 36      | 4300          | 0.57                  | 290          |
| CHQ0603T-9N1□-HU | 9.1             | 3/5            | 14    | 500                  | 17        | 22      | 33      | 34      | 36      | 4000          | 0.65                  | 270          |
| CHQ0603T-9N4□-HU | 9.4             | 3/5            | 14    | 500                  | 17        | 22      | 33      | 34      | 36      | 4000          | 0.73                  | 250          |
| CHQ0603T-10N□-HU | 10              | 3/5            | 14    | 500                  | 17        | 22      | 33      | 34      | 36      | 3800          | 0.85                  | 230          |
| CHQ0603T-12N□-HU | 12              | 3/5            | 14    | 500                  | 17        | 22      | 31      | 32      | 33      | 3300          | 0.85                  | 230          |
| CHQ0603T-15N□-HU | 15              | 3/5            | 14    | 500                  | 17        | 21      | 28      | 29      | 29      | 2600          | 0.89                  | 220          |
| CHQ0603T-18N□-HU | 18              | 3/5            | 14    | 500                  | 16        | 21      | 26      | 26      | 25      | 2300          | 1.05                  | 205          |
| CHQ0603T-22N□-HU | 22              | 3/5            | 14    | 500                  | 16        | 21      | 26      | 26      | 24      | 1900          | 1.29                  | 190          |

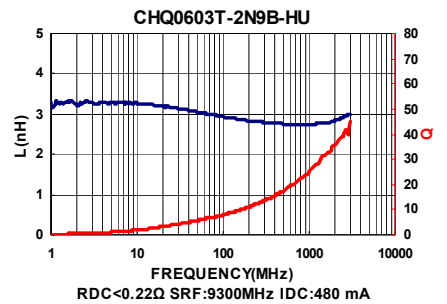
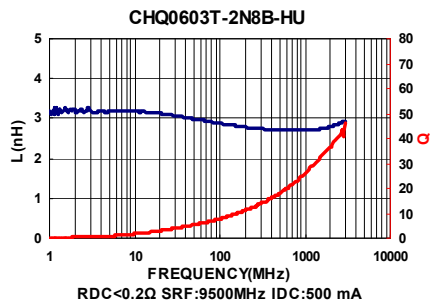
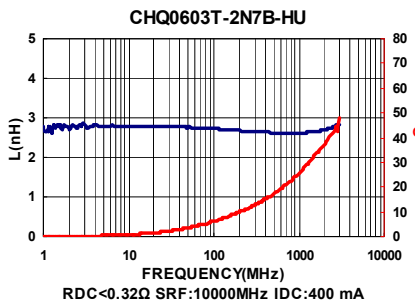
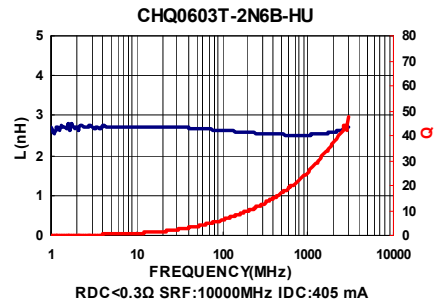
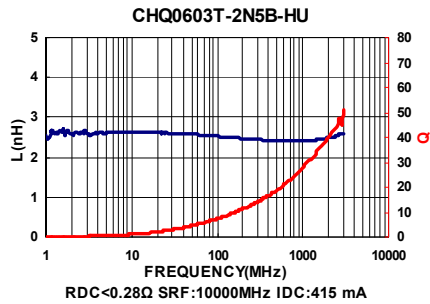
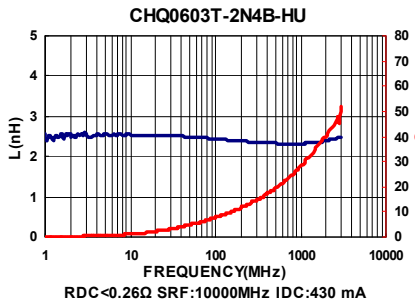
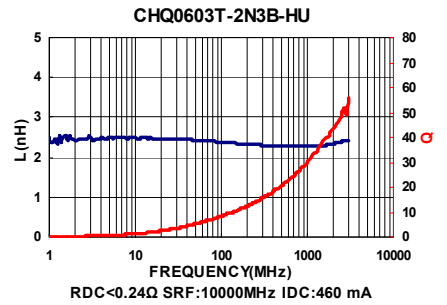
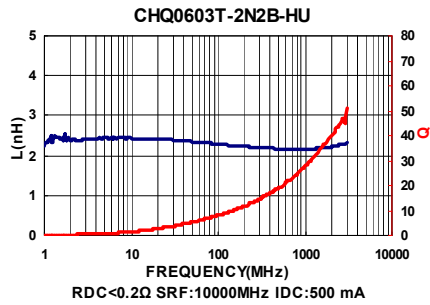
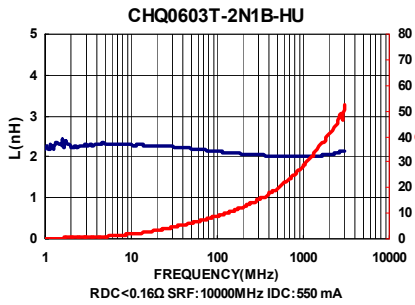
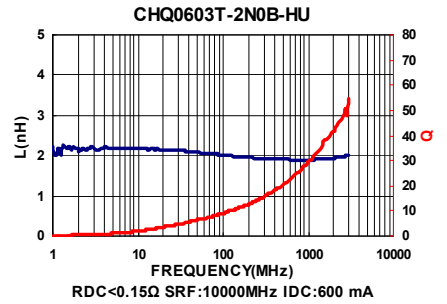
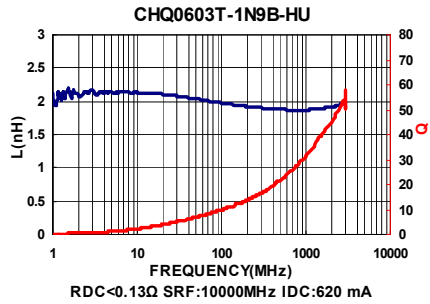
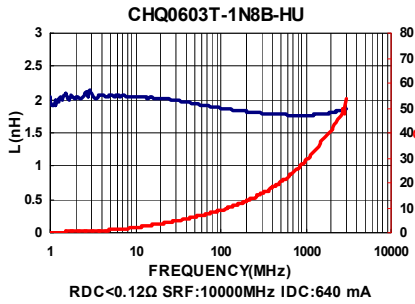
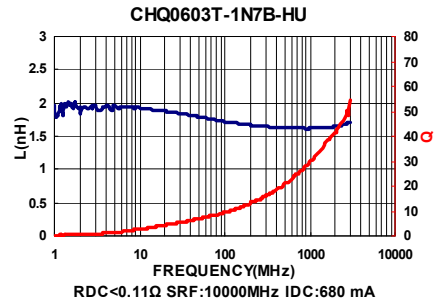
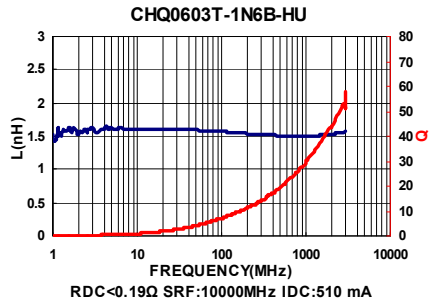
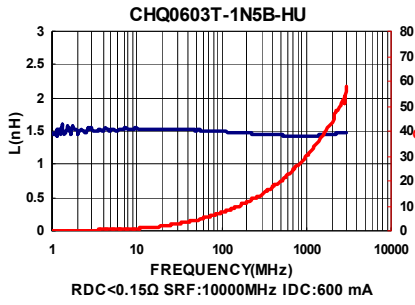
- Tolerance : B = ± 0.1 nH ; C = ± 0.2 nH ; S = ± 0.3 nH ; H = ± 3 % ; J = ± 5%
- Test Instruments : L/Q : Agilent E4991A Fixture : Agilent 16197A  
 SRF : Agilent E4991A / HP19196C  
 RDC : HP4338B/ CH502BC

## Test Instruments : Agilent E4991A Material/Impedance Analyzer



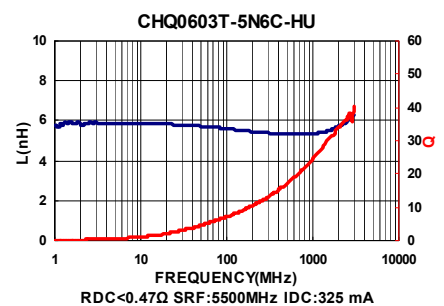
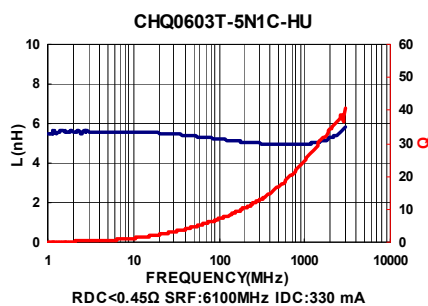
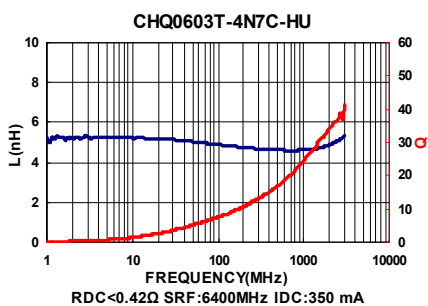
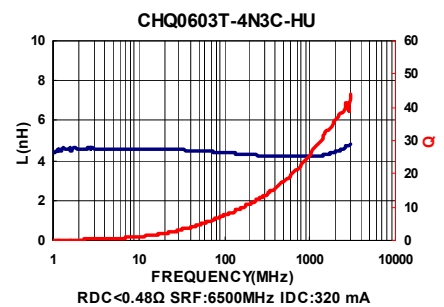
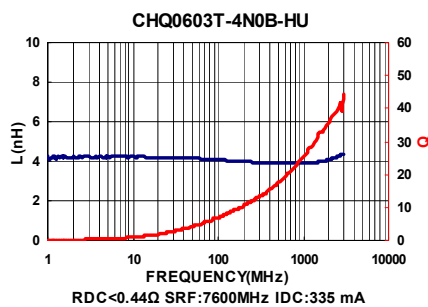
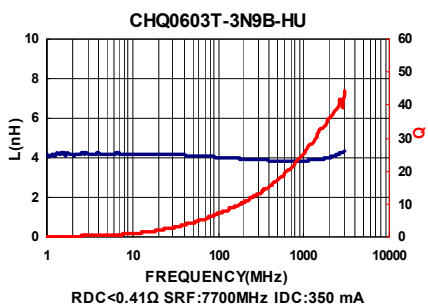
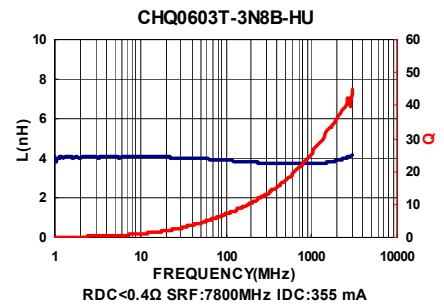
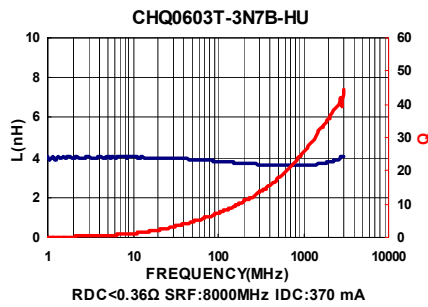
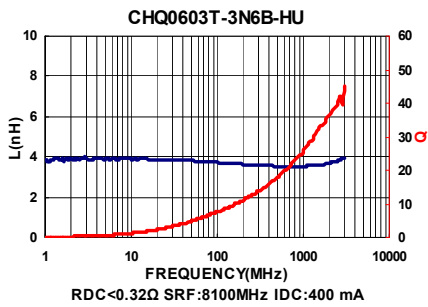
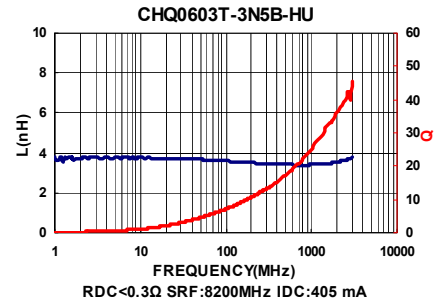
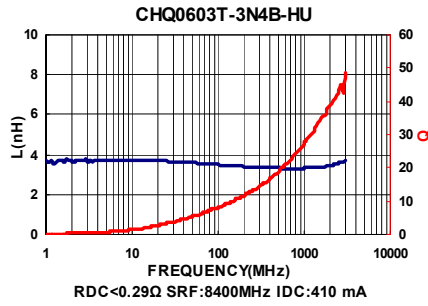
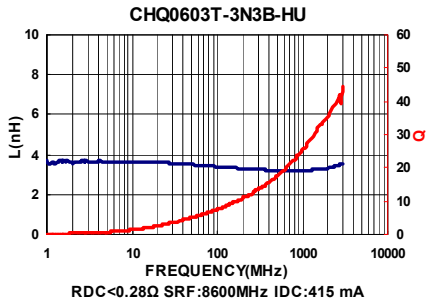
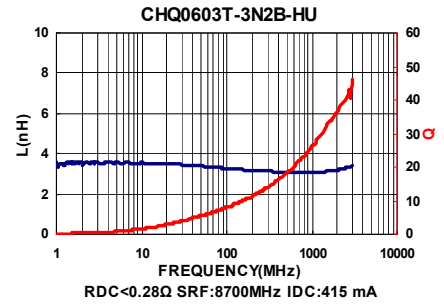
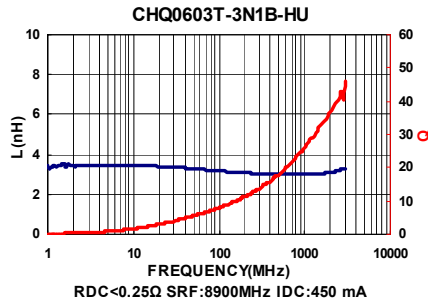
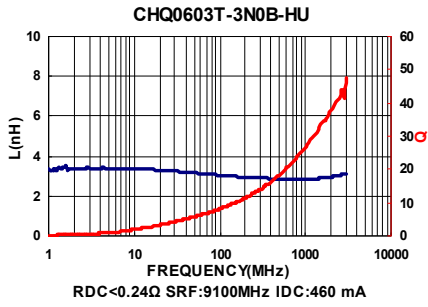
# SMD Ceramic Multilayer Chip Inductors – CHQ Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer



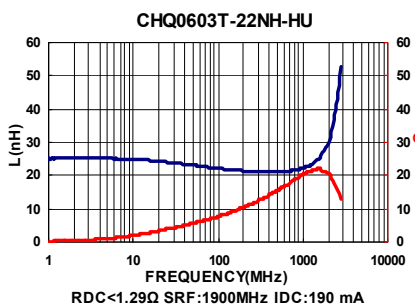
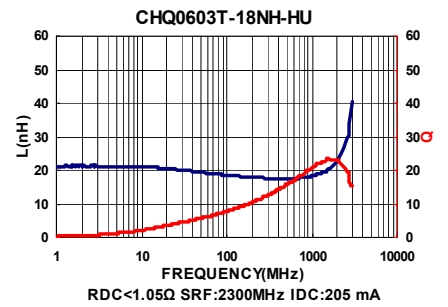
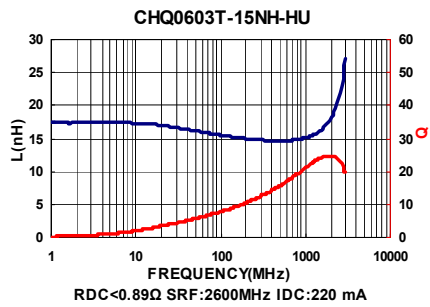
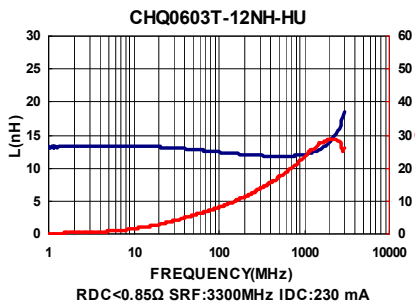
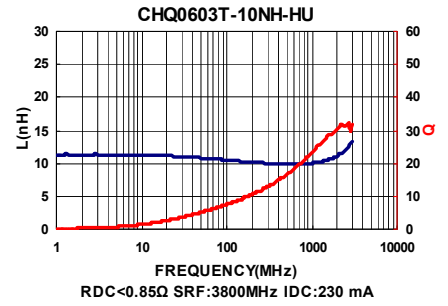
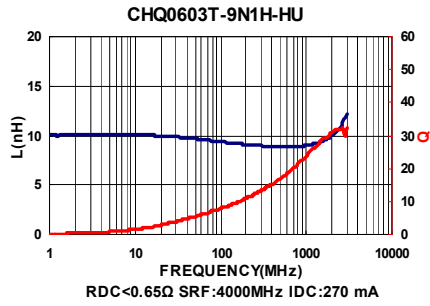
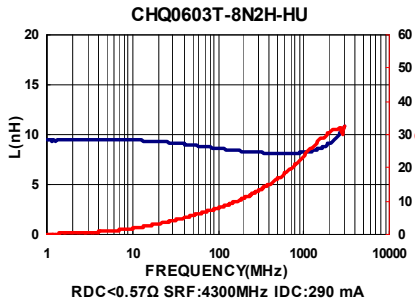
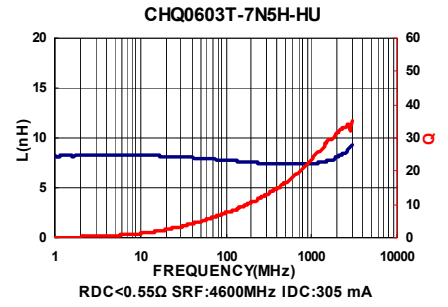
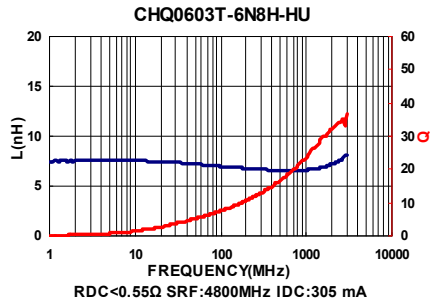
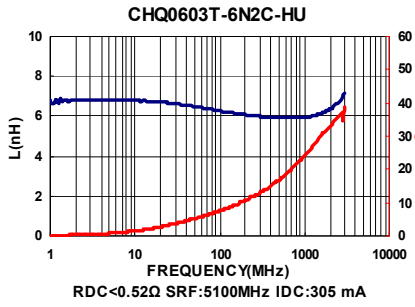
# SMD Ceramic Multilayer Chip Inductors – CHQ Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer



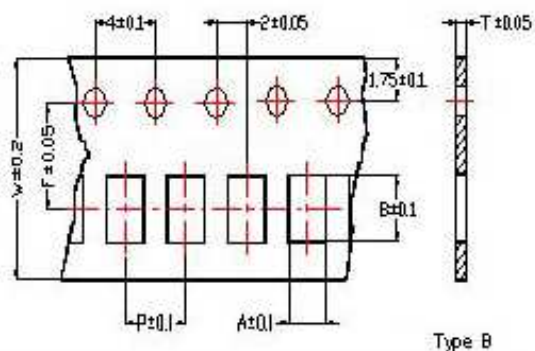
# SMD Ceramic Multilayer Chip Inductors – CHQ Series

Test Instruments : Agilent E4991A Material/Impedance Analyzer



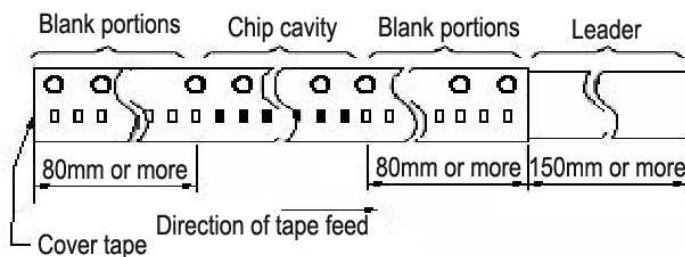
## Packaging Specifications

### Tape Dimensions

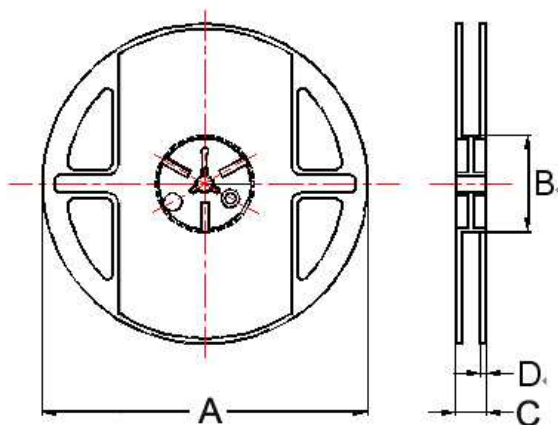


### Tape Material

Carrier tape : Paper  
Cover tape : Polyethylene



### Reel Dimensions



### Dimensions in mm

| TYPE    | Tape Dimensions |      |      |   |   |     | Reel Dimensions |    |    |     | Quantity   |
|---------|-----------------|------|------|---|---|-----|-----------------|----|----|-----|------------|
|         | A               | B    | T    | W | P | F   | A               | B  | C  | D   | PCS / Reel |
| CHQ0603 | 0.37            | 0.67 | 0.42 | 8 | 2 | 3.5 | 180             | 60 | 13 | 1.5 | 15000      |