

THIN FILM CHIP INDUCTORS

For high frequency and high precision inductance

Series UT



OUTLINE

- ♦ Gausstek's 0402 and 0201 thin films series chip inductor is a photo lithographically etched single layer ceramic chip. Gausstek's design provides high SRF, excellent Q, and superior temperature stability. This highly stable inductor family is specifically designed for critical tolerance needs.

FEATURES

- ♦ Photolithographic single layer ceramic chip
- ♦ High SRF, excellent Q, superior temperature stability
- ♦ Tight tolerance of $\pm 1\%$ or $\pm 0.1\text{nH}$
- ♦ Self resonant frequency controlled within 10%
- ♦ Stable inductance in high frequency circuit
- ♦ Highly stable design for critical needs

APPLICATIONS

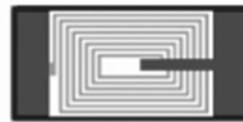
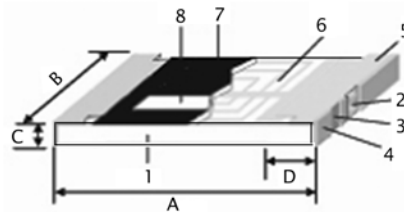
- ♦ Cellular Telephone, Pagers and GPS Products
- ♦ VCO, TCXO Circuit and RF Transceiver Module
- ♦ Wireless LAN, Bluetooth Module, Communication Appliances

PRODUCT IDENTIFICATION

UT 01 X 01 B 0 3N3
a **b** **c** **d** **e** **f** **g**

- a : Type of products - SMD High Frequency
- b : Dimensions (mm) - 01 : 0.6*0.3 mm, 02 : 1.0*0.5 mm
- c : Types - X : General Type, 2 : High Q Type
- d : Diameter (mm) - Thickness 01=0.23mm, 13=0.32mm
- e : Packing(PCS / REEL) - 0 = 10,000
- f : Tolerance - B= $\pm 0.1\text{n}$, U= $\pm 0.2\text{nH}$, T= $\pm 0.3\text{nH}$, F= $\pm 1\%$, G= $\pm 2\%$, H= ± 3 , J= $\pm 5\%$
- g : Inductance - 1N=1.0nH, 3N3=3.3nH

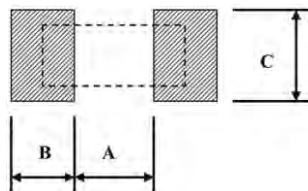
SHAPES & DIMENSIONS



1 Alumina Substrate
2 Inner Electrode (Ni-Cr)
3 Barrier Layer (Ni)
4 External Electrode (Sn)
5 Edge Electrode
6 Cu Circuits
7 Overcoat
8 Marking

Unit : mm

Type	Size	A	B	C	D	Weight (g) 1000pcs
UT01	0201	0.6 \pm 0.05	0.3 \pm 0.05	0.23 \pm 0.05	0.15 \pm 0.05	0.23
UT02	0402	1.0 \pm 0.05	0.5 \pm 0.05	0.32 \pm 0.05	0.2 \pm 0.05	0.9

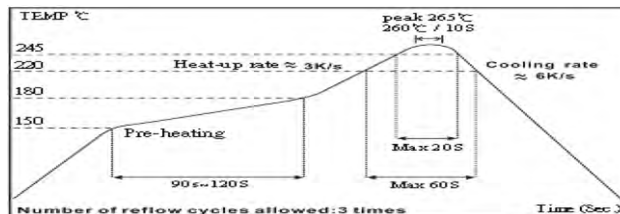


Land Pattern

Unit : mm

Type	A	B	C
UT01	0.3	0.25	0.3 \pm 0.2
UT02	0.5	0.45	0.6 \pm 0.2

REFLOW



THIN FILM CHIP INDUCTORS

Series **UT** For high frequency and high precision inductance

ELECTRICAL CHARACTERISTICS

UT01 (0201)

Part Number	Inductance (nH)	Inductance Tolerance (nH / %)	Q min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.	Replace Murata		
							Inductance (nH)	Tolerance (±)	Part number
UT01X010□ 0N1	0.1	±0.1, 0.2, 0.3nH		9	0.2	400	0.7	0.1nH	LQP03TN0N7B
UT01X010□ 0N2	0.2	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.2	400	0.8	0.1nH	LQP03TN0N8B
UT01X010□ 0N3	0.3	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.2	400	0.9	0.1nH	LQP03TN0N9B
UT01X010B 0N4	0.4	±0.1nH	8 / 500MHz	9	0.25	350	1	0.1nH	LQP03TN1N0B04
UT01X010U 0N4	0.4	±0.2nH	8 / 500MHz	9	0.25	350	1	0.2nH	LQP03TN1N0C04
UT01X010T 0N4	0.4	±0.3nH	8 / 500MHz	9	0.25	350	N/A	N/A	N/A
UT01X010□ 0N5	0.5	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.25	350	1.1	0.1nH	LQP03TN1N1B04
UT01X010B 0N6	0.6	±0.1nH	8 / 500MHz	9	0.25	350	1.2	0.2nH	LQP03TN1N2C04
UT01X010U 0N6	0.6	±0.2nH	8 / 500MHz	9	0.25	350	1.2	0.1nH	LQP03TN1N2B04
UT01X010T 0N6	0.6	±0.3nH	8 / 500MHz	9	0.25	350	N/A	N/A	N/A
UT01X010□ 0N7	0.7	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.3	300	1.3	0.1nH	LQP03TN1N3B04
UT01X010□ 0N8	0.8	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.3	300	1.4	0.1nH	LQP03TN1N4B04
UT01X010B 0N9	0.9	±0.1nH	8 / 500MHz	9	0.3	300	1.5	0.1nH	LQP03TN1N5B04
UT01X010U 0N9	0.9	±0.2nH	8 / 500MHz	9	0.3	300	1.5	0.2nH	LQP03TN1N5C04
UT01X010T 0N9	0.9	±0.3nH	8 / 500MHz	9	0.3	300	N/A	N/A	N/A
UT01X010□ 1N	1	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.3	300	1.6	0.1nH	LQP03TN1N6B04
UT01X010□ 1N1	1.1	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.35	300	1.7	0.1nH	LQP03TN1N7B04
UT01X010B 1N2	1.2	±0.1nH	8 / 500MHz	9	0.35	300	1.8	0.1nH	LQP03TN1N8B04
UT01X010U 1N2	1.2	±0.2nH	8 / 500MHz	9	0.35	300	1.8	0.2nH	LQP03TN1N8C04
UT01X010T 1N2	1.2	±0.3nH	8 / 500MHz	9	0.35	300	N/A	N/A	N/A
UT01X010□ 1N3	1.3	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.45	250	1.9	0.1nH	LQP03TN1N9B04
UT01X010□ 1N4	1.4	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.45	250	2	0.1nH	LQP03TN2N0B04
UT01X010□ 1N5	1.5	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.45	250	2.1	0.1nH	LQP03TN2N1B04
UT01X010B 1N6	1.6	±0.1nH	8 / 500MHz	9	0.55	200	2.2	0.1nH	LQP03TN2N2B04
UT01X010U 1N6	1.6	±0.2nH	8 / 500MHz	9	0.55	200	2.2	0.2nH	LQP03TN2N2C04
UT01X010T 1N6	1.6	±0.3nH	8 / 500MHz	9	0.55	200	N/A	N/A	N/A
UT01X010□ 1N7	1.7	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.55	200	2.3	0.1nH	LQP03TN2N3B04
UT01X010□ 1N8	1.8	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.55	200	2.4	0.1nH	LQP03TN2N4B04
UT01X010□ 1N9	1.9	±0.1, 0.2, 0.3nH	8 / 500MHz	9	0.55	200	2.5	0.1nH	LQP03TN2N5B04
UT01X010□ 2N	2	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.7	200	2.6	0.1nH	LQP03TN2N6B04
UT01X010B 2N1	2.1	±0.1nH	8 / 500MHz	8	0.7	200	2.7	0.1nH	LQP03TN2N7B04
UT01X010U 2N1	2.1	±0.2nH	8 / 500MHz	8	0.7	200	2.7	0.2nH	LQP03TN2N7C04
UT01X010T 2N1	2.1	±0.3nH	8 / 500MHz	8	0.7	200	N/A	N/A	N/A
UT01X010□ 2N2	2.2	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.7	200	2.8	0.1nH	LQP03TN2N8B04
UT01X010□ 2N3	2.3	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.8	150	2.9	0.1nH	LQP03TN2N9B04
UT01X010□ 2N4	2.4	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.8	150	3	0.1nH	LQP03TN3N0B04
UT01X010□ 2N5	2.5	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.8	150	3.1	0.1nH	LQP03TN3N1B04
UT01X010□ 2N6	2.6	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.8	150	3.2	0.1nH	LQP03TN3N2B04
UT01X010□ 2N7	2.7	±0.1, 0.2, 0.3nH	8 / 500MHz	8	0.8	150	3.3	0.2nH	LQP03TN3N3C04
UT01X010□ 2N8	2.8	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1	150	3.4	0.1nH	LQP03TN3N4B04

Operating Temperature Range : -40°C to +85°C

Test Equipment : HP4287A+Agilent 16196C

Gausstek is capable to manufacture the optional spec based on customer's requirement ◦

THIN FILM CHIP INDUCTORS

Series **UT** For high frequency and high precision inductance

ELECTRICAL CHARACTERISTICS

UT01 (0201)

Part Number	Inductance (nH)	Inductance Tolerance (nH / %)	Q min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.	Replace Murata		
							Inductance (nH)	Tolerance (±)	Part number
UT01X010□ 2N9	2.9	±0.1, 0.2, 0.3nH		6	1	150	3.5	0.1nH	LQP03TN3N5B04
UT01X010□ 3N	3	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1	150	3.6	0.1nH	LQP03TN3N6B04
UT01X010□ 3N1	3.1	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1	150	3.7	0.1nH	LQP03TN3N7B04
UT01X010□ 3N2	3.2	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1	150	3.8	0.1nH	LQP03TN3N8B04
UT01X010B 3N3	3.3	±0.1nH	8 / 500MHz	6	1	150	3.9	0.1nH	LQP03TN3N9B04
UT01X010U 3N3	3.3	±0.2nH	8 / 500MHz	6	1	150	3.9	0.2nH	LQP03TN3N9C04
UT01X010T 3N3	3.3	±0.3nH	8 / 500MHz	6	1	150	N/A	N/A	N/A
UT01X010□ 3N4	3.4	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.2	150	N/A	N/A	N/A
UT01X010□ 3N5	3.5	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.2	150	N/A	N/A	N/A
UT01X010□ 3N6	3.6	±0.1, 0.2, 0.3nH	8 / 500MHz	6	1.2	150	N/A	N/A	N/A
UT01X010□ 3N7	3.7	±0.1 / 0.2 / 0.3nH or 3/5%	8 / 500MHz	6	1.2	150	4.3	3%	LQP03TN4N3H04
UT01X010□ 3N8	3.8	±0.1 / 0.2 / 0.3nH or 3/5%	8 / 500MHz	6	1.2	150	N/A	N/A	N/A
UT01X010□ 3N9	3.9	±0.1 / 0.2 / 0.3nH or 3/5%	8 / 500MHz	6	1.2	150	N/A	N/A	N/A
UT01X010□ 4N	4	±0.1 / 0.2 / 0.3nH	8 / 500MHz	6	1.2	150	N/A	N/A	N/A
UT01X010H 4N	4	±3%	8 / 500MHz	6	1.2	150	4.7	3%	LQP03TN4N7H04
UT01X010J 4N	4	±5%	8 / 500MHz	6	1.2	150	4.7	5%	LQP03TN4N7J04
UT01X010□ 4N4	4.4	±0.1 / 0.2 / 0.3nH or 3/5%	8 / 500MHz	6	1.3	140	5.1	3%	LQP03TN5N1H04
UT01X010□ 4N7	4.7	±0.1 / 0.2 / 0.3nH or 3/5%	8 / 500MHz	6	1.4	130	N/A	N/A	N/A
UT01X010□ 4N9	4.9	±0.1 / 0.2 / 0.3nH	8 / 500MHz	6	1.6	130	N/A	N/A	N/A
UT01X010H 4N9	4.9	±3%	8 / 500MHz	6	1.6	130	5.6	3%	LQP03TN5N6H04
UT01X010J 4N9	4.9	±5%	8 / 500MHz	6	1.6	130	5.6	5%	LQP03TN5N6J04
UT01X010□ 5N6	5.6	±2/3/5%	8 / 500MHz	4	1.8	130	N/A	N/A	N/A
UT01X010G 6N1	6.1	±2%	8 / 500MHz	4	2	120	N/A	N/A	N/A
UT01X010H 6N1	6.1	±3%	8 / 500MHz	4	2	120	6.8	3%	LQP03TN6N8H04
UT01X010J 6N1	6.1	±5%	8 / 500MHz	4	2	120	6.8	5%	LQP03TN6N8J04
UT01X010G 6N8	6.8	±2%	8 / 500MHz	4	2.3	110	N/A	N/A	N/A
UT01X010H 6N8	6.8	±3%	8 / 500MHz	4	2.3	110	7.5	3%	LQP03TN7N5H04
UT01X010J 6N8	6.8	±5%	8 / 500MHz	4	2.3	110	7.5	5%	LQP03TN7N5J04
UT01X010G 7N4	7.4	±2%	8 / 500MHz	4	2.8	110	N/A	N/A	N/A
UT01X010H 7N4	7.4	±3%	8 / 500MHz	4	2.8	110	8.2	3%	LQP03TN8N2H04
UT01X010J 7N4	7.4	±5%	8 / 500MHz	4	2.8	110	8.2	5%	LQP03TN8N2J04
UT01X010□ 8N2	8.2	±2/3/5%	8 / 500MHz	3	3	110	9.1	3%	LQP03TN9N1H04
UT01X010□ 9N1	9.1	±2/3/5%	8 / 500MHz	2	3.25	100	N/A	N/A	N/A
UT01X010G 9N2	9.2	±2%	8 / 500MHz	2	3.25	100	N/A	N/A	N/A
UT01X010H 9N2	9.2	±3%	8 / 500MHz	2	3.25	100	10	3%	LQP03TN10NH04
UT01X010J 9N2	9.2	±5%	8 / 500MHz	2	3.25	100	10	5%	LQP03TN10NJ04
UT01X010□ 10N	10	±2/3/5%	8 / 500MHz	2	3.5	80	N/A	N/A	N/A

Operating Temperature Range : -40°C to +85°C

Test Equipment : HP4287A+Agilent 16196C

Gausstek is capable to manufacture the optional spec based on customer's requirement .

THIN FILM CHIP INDUCTORS

Series **UT** For high frequency and high precision inductance

ELECTRICAL CHARACTERISTICS

UT01-2 (0201)

Part Number	Inductance (nH)	Inductance Tolerance (nH / %)	Q min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.	Replace Murata		
							Inductance (nH)	Tolerance (±)	Part number
UT012010□ 0N1	0.1	±0.1, 0.2, 0.3nH		6	0.05	850	0.7	0.1nH	LQP03TN0N7B02
UT012010□ 0N2	0.2	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.05	800	0.8	0.1nH	LQP03TN0N8B02
UT012010□ 0N3	0.3	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.05	800	0.9	0.1nH	LQP03TN0N9B02
UT012010B 0N4	0.4	±0.1nH	14 / 500MHz	6	0.05	750	1	0.1nH	LQP03TN1N0B02
UT012010U 0N4	0.4	±0.2nH	14 / 500MHz	6	0.05	750	1	0.2nH	LQP03TN1N0C02
UT012010T 0N4	0.4	±0.3nH	14 / 500MHz	6	0.05	750	N/A	N/A	N/A
UT012010□ 0N5	0.5	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.1	750	1.1	0.1nH	LQP03TN1N1B02
UT012010B 0N6	0.6	±0.1nH	14 / 500MHz	6	0.1	750	1.2	0.1nH	LQP03TN1N2B02
UT012010U 0N6	0.6	±0.2nH	14 / 500MHz	6	0.1	750	1.2	0.2nH	LQP03TN1N2C02
UT012010T 0N6	0.6	±0.3nH	14 / 500MHz	6	0.1	750	N/A	N/A	N/A
UT012010□ 0N7	0.7	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.1	600	1.3	0.1nH	LQP03TN1N3B02
UT012010□ 0N8	0.8	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.1	600	1.4	0.1nH	LQP03TN1N4B02
UT012010B 0N9	0.9	±0.1nH	14 / 500MHz	6	0.1	600	1.5	0.1nH	LQP03TN1N5B02
UT012010U 0N9	0.9	±0.2nH	14 / 500MHz	6	0.1	600	1.5	0.2nH	LQP03TN1N5C02
UT012010T 0N9	0.9	±0.3nH	14 / 500MHz	6	0.1	600	N/A	N/A	N/A
UT012010□ 1N	1	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.15	600	1.6	0.1nH	LQP03TN1N6B02
UT012010□ 1N1	1.1	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.15	600	1.7	0.1nH	LQP03TN1N7B02
UT012010B 1N2	1.2	±0.1nH	14 / 500MHz	6	0.15	600	1.8	0.1nH	LQP03TN1N8B02
UT012010U 1N2	1.2	±0.2nH	14 / 500MHz	6	0.15	600	1.8	0.2nH	LQP03TN1N8C02
UT012010T 1N2	1.2	±0.3nH	14 / 500MHz	6	0.15	600	N/A	N/A	N/A
UT012010□ 1N3	1.3	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.15	600	1.9	0.1nH	LQP03TN1N9B02
UT012010□ 1N4	1.4	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.15	600	2	0.1nH	LQP03TN2N0B02
UT012010□ 1N5	1.5	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.15	600	2.1	0.1nH	LQP03TN2N1B02
UT012010B 1N6	1.6	±0.1nH	14 / 500MHz	6	0.15	600	2.2	0.1nH	LQP03TN2N2B02
UT012010U 1N6	1.6	±0.2nH	14 / 500MHz	6	0.15	600	2.2	0.2nH	LQP03TN2N2CB02
UT012010T 1N6	1.6	±0.3nH	14 / 500MHz	6	0.15	600	N/A	N/A	N/A
UT012010□ 1N7	1.7	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500	2.3	0.1nH	LQP03TN2N3B02
UT012010□ 1N8	1.8	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500	2.4	0.1nH	LQP03TN2N4B02
UT012010□ 1N9	1.9	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500	2.5	0.1nH	LQP03TN2N5B02
UT012010□ 2N	2	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500	2.6	0.1nH	LQP03TN2N6B02
UT012010B 2N1	2.1	±0.1nH	14 / 500MHz	6	0.2	500	2.7	0.1nH	LQP03TN2N7B02
UT012010U 2N1	2.1	±0.2nH	14 / 500MHz	6	0.2	500	2.7	0.2nH	LQP03TN2N7C02
UT012010T 2N1	2.1	±0.3nH	14 / 500MHz	6	0.2	500	N/A	N/A	N/A
UT012010□ 2N2	2.2	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500	2.8	0.1nH	LQP03TN2N8B02
UT012010□ 2N3	2.3	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.2	500	2.9	0.1nH	LQP03TN2N9B02
UT012010□ 2N4	2.4	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.25	450	3	0.1nH	LQP03TN3N0B02
UT012010□ 2N5	2.5	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.25	450	3.1	0.1nH	LQP03TN3N1B02
UT012010□ 2N6	2.6	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.25	450	3.2	0.1nH	LQP03TN3N2B02
UT012010B 2N7	2.7	±0.1nH	14 / 500MHz	6	0.25	450	3.3	0.1nH	LQP03TN3N3B02
UT012010U 2N7	2.7	±0.2nH	14 / 500MHz	6	0.25	450	3.3	0.2nH	LQP03TN3N3C02
UT012010T 2N7	2.7	±0.3nH	14 / 500MHz	6	0.25	450	N/A	N/A	N/A
UT012010□ 2N8	2.8	±0.1, 0.2, 0.3nH	14 / 500MHz	6	0.25	450	3.4	0.1nH	LQP03TN3N4B02

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ELECTRICAL CHARACTERISTICS

UT01-2 (0201)

Part Number	Inductance (nH)	Inductance Tolerance (nH / %)	Q min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.	Replace Murata		
							Inductance (nH)	Tolerance (\pm)	Part number
UT012010□ 3N	3	$\pm 0.1, 0.2, 0.3$ nH		6	0.3	400	3.6	0.1nH	LQP03TN3N6B02
UT012010□ 3N1	3.1	$\pm 0.1, 0.2, 0.3$ nH	14 / 500MHz	6	0.3	400	3.7	0.1nH	LQP03TN3N7B02
UT012010□ 3N2	3.2	$\pm 0.1, 0.2, 0.3$ nH	14 / 500MHz	6	0.3	400	3.8	0.1nH	LQP03TN3N8B02
UT012010B 3N3	3.3	± 0.1 nH	14 / 500MHz	6	0.3	400	3.9	0.1nH	LQP03TN3N9B02
UT012010U 3N3	3.3	± 0.2 nH	14 / 500MHz	6	0.3	400	3.9	0.2nH	LQP03TN3N9C02
UT012010T 3N3	3.3	± 0.3 nH	14 / 500MHz	6	0.3	400	N/A	N/A	N/A
UT012010□ 3N4	3.4	$\pm 0.1, 0.2, 0.3$ nH	14 / 500MHz	6	0.4	350	N/A	N/A	N/A
UT012010□ 3N5	3.5	$\pm 0.1, 0.2, 0.3$ nH	14 / 500MHz	6	0.4	350	N/A	N/A	N/A
UT012010□ 3N6	3.6	$\pm 0.1, 0.2, 0.3$ nH	14 / 500MHz	6	0.4	350	N/A	N/A	N/A
UT012010□ 3N7	3.7	$\pm 0.1, 0.2, 0.3$ nH or 3%	14 / 500MHz	6	0.4	350	4.3	3%	LQP03TN4N3H02
UT012010□ 3N8	3.8	$\pm 0.1, 0.2, 0.3$ nH	14 / 500MHz	6	0.4	350	N/A	N/A	N/A
UT012010□ 3N9	3.9	$\pm 0.1, 0.2, 0.3$ nH	14 / 500MHz	6	0.4	350	N/A	N/A	N/A
UT012010□ 4N	4	$\pm 0.1, 0.2, 0.3$ nH	14 / 500MHz	6	0.4	350	N/A	N/A	N/A
UT012010H 4N	4	$\pm 3\%$	14 / 500MHz	6	0.4	350	4.7	3%	LQP03TN4N7H02
UT012010J 4N	4	$\pm 5\%$	14 / 500MHz	6	0.4	350	4.7	5%	LQP03TN4N7J02

Operating Temperature Range : -40°C to $+85^{\circ}\text{C}$

Test Equipment : HP4287A+Agilent 16196C

Gausstek is capable to manufacture the optional spec based on customer's requirement .

THIN FILM CHIP INDUCTORS

Series **UT** For high frequency and high precision inductance

ELECTRICAL CHARACTERISTICS

UT02 (0402)

Part Number	Inductance (nH)	Inductance Tolerance (nH / %)	Q min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.	Replace Murata		
							Inductance (nH)	Tolerance (±)	Part number
UT02X130□ 0N3	0.3	±0.1, 0.2, 0.3nH		14	0.1	800	1.1	0.1nH	LQP15MN1N1B00
UT02X130□ 0N4	0.4	±0.1, 0.2, 0.3nH	13 / 500MHz	14	0.1	800	1.2	0.1nH	LQP15MN1N2B00
UT02X130□ 0N5	0.5	±0.1, 0.2, 0.3nH	13 / 500MHz	14	0.15	700	1.3	0.1nH	LQP15MN1N3B00
UT02X130B 0N8	0.8	±0.1nH	13 / 500MHz	14	0.15	700	1.5	0.1nH	LQP15MN1N5B00
UT02X130U 0N8	0.8	±0.2nH	13 / 500MHz	14	0.15	700	N/A	N/A	N/A
UT02X130T 0N8	0.8	±0.3nH	13 / 500MHz	14	0.15	700	1.5	0.3nH	LQP15MN1N5S00
UT02X130□ 0N9	0.9	±0.1, 0.2, 0.3nH	13 / 500MHz	14	0.15	700	1.6	0.1nH	LQP15MN1N6B00
UT02X130□ 1N	1	±0.1, 0.2, 0.3nH	13 / 500MHz	12	0.15	700	1.7	0.1nH	LQP15MN1N7B00
UT02X130□ 1N1	1.1	±0.1, 0.2, 0.3nH	13 / 500MHz	12	0.15	700	N/A	N/A	N/A
UT02X130B 1N2	1.2	±0.1nH	13 / 500MHz	12	0.15	700	1.8	0.1nH	LQP15MN1N8B00
UT02X130U 1N2	1.2	±0.2nH	13 / 500MHz	12	0.15	700	N/A	N/A	N/A
UT02X130T 1N2	1.2	±0.3nH	13 / 500MHz	12	0.15	700	1.8	0.3nH	LQP15MN1N8S00
UT02X130□ 1N3	1.3	±0.1, 0.2, 0.3nH	13 / 500MHz	10	0.25	700	2	0.1nH	LQP15MN2N0B00
UT02X130□ 1N4	1.4	±0.1, 0.2, 0.3nH	13 / 500MHz	10	0.25	700	N/A	N/A	N/A
UT02X130□ 1N5	1.5	±0.1, 0.2, 0.3nH	13 / 500MHz	10	0.25	700	2.2	0.1nH	LQP15MN2N2B00
UT02X130□ 1N6	1.6	±0.1, 0.2, 0.3nH	13 / 500MHz	10	0.25	560	2.3	0.1nH	LQP15MN2N3B00
UT02X130□ 1N7	1.7	±0.1, 0.2, 0.3nH	13 / 500MHz	10	0.25	560	2.4	0.1nH	LQP15MN2N4B00
UT02X130□ 1N8	1.8	±0.1, 0.2, 0.3nH	13 / 500MHz	10	0.25	560	2.7	0.1nH	LQP15MN2N7B00
UT02X130□ 1N9	1.9	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	560	N/A	N/A	N/A
UT02X130□ 2N	2	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	560	2.9	0.1nH	LQP15MN2N9B00
UT02X130□ 2N1	2.1	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440	3	0.1nH	LQP15MN3N0B00
UT02X130□ 2N2	2.2	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440	3.1	0.1nH	LQP15MN3N1B00
UT02X130□ 2N3	2.3	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440	N/A	N/A	N/A
UT02X130□ 2N4	2.4	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440	3.2	0.1nH	LQP15MN3N2B00
UT02X130□ 2N5	2.5	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440	N/A	N/A	N/A
UT02X130□ 2N6	2.6	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440	N/A	N/A	N/A
UT02X130□ 2N7	2.7	±0.1, 0.2, 0.3nH	13 / 500MHz	8	0.35	440	3.3	0.1nH	LQP15MN3N3B00
UT02X130□ 2N8	2.8	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.45	380	N/A	N/A	N/A
UT02X130□ 2N9	2.9	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.45	380	3.6	0.1nH	LQP15MN3N6B00
UT02X130□ 3N	3	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.45	380	3.7	0.1nH	LQP15MN3N7B00
UT02X130□ 3N1	3.1	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.45	380	3.9	N/A	LQP15MN3N9B00
UT02X130□ 3N2	3.2	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.45	380	N/A	N/A	N/A
UT02X130□ 3N3	3.3	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.45	380	4.1	0.1nH	LQP15MN4N1B00
UT02X130□ 3N4	3.4	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.55	380	N/A	N/A	N/A
UT02X130□ 3N5	3.5	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.55	380	N/A	N/A	N/A
UT02X130□ 3N6	3.6	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.55	380	4.3	0.1nH	LQP15MN4N3B00
UT02X130□ 3N7	3.7	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.55	340	4.5	0.1nH	LQP15MN4N5B00
UT02X130□ 3N8	3.8	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.55	340	N/A	N/A	N/A
UT02X130□ 3N9	3.9	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.55	340	4.7	0.1nH	LQP15MN4N7B00
UT02X130□ 4N3	4.3	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.65	320	5.1	0.1nH	LQP15MN5N1B00
UT02X130□ 4N7	4.7	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.65	320	5.6	0.1nH	LQP15MN5N6B00
UT02X130□ 5N4	5.4	±0.1, 0.2, 0.3nH	13 / 500MHz	6	0.85	280	6.2	0.1nH	LQP15MN6N2B00

Operating Temperature Range : -40°C to +85°C

Test Equipment : HP4287A+Agilent 16196C

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ELECTRICAL CHARACTERISTICS

UT02 (0402)

Part Number	Inductance (nH)	Inductance Tolerance (nH / %)	Q min.	SRF (GHz) min.	DCR (Ω) max.	IDC (mA) max.	Replace Murata		
							Inductance (nH)	Tolerance (\pm)	Part number
UT02X130□ 5N9	5.9	$\pm 0.1, 0.2, 0.3nH$		6	0.85	280	6.8	0.1nH	LQP15MN6N8B00
UT02X130□ 6N5	6.5	$\pm 0.1, 0.2, 0.3nH$	13 / 500MHz	6	1.05	260	7.5	0.1nH	LQP15MN7N5B00
UT02X130□ 6N8	6.8	$\pm 0.1, 0.2, 0.3nH$	13 / 500MHz	6	1.05	260	7.7	0.1nH	LQP15MN7N7B00
UT02X130□ 7N2	7.2	$\pm 0.1, 0.2, 0.3nH$	13 / 500MHz	6	1.05	260	8.2	0.1nH	LQP15MN8N2B00
UT02X130□ 8N	8	$\pm 0.1, 0.2, 0.3nH$	13 / 500MHz	5.5	1.25	220	9	0.1nH	LQP15MN9N0B00
UT02X130□ 8N1	8.1	$\pm 0.1, 0.2, 0.3nH$	13 / 500MHz	5.5	1.25	220	9.1	0.1nH	LQP15MN9N1B00
UT02X130□ 8N2	8.2	$\pm 0.1, 0.2, 0.3nH$	13 / 500MHz	5.5	1.25	220	9.2	0.1nH	LQP15MN9N2B00
UT02X130□ 9N1	9.1	$\pm 0.1, 0.2, 0.3nH$	13 / 500MHz	5.5	1.25	220	10	2%	LQP15MN10NG00
UT02X130□ 10N	10	$\pm 1/2/3/5\%$	13 / 500MHz	4.5	1.35	200	N/A	N/A	N/A
UT02X130□ 10N8	10.8	$\pm 1/2/3/5\%$	13 / 500MHz	4.5	1.35	200	12	2%	LQP15MN12NG00
UT02X130□ 12N	12	$\pm 1/2/3/5\%$	13 / 500MHz	3.7	1.55	180	N/A	N/A	N/A
UT02X130□ 13N8	13.8	$\pm 1/2/3/5\%$	13 / 500MHz	3.7	1.75	180	15	2%	LQP15MN15NG00
UT02X130□ 15N	15	$\pm 1/2/3/5\%$	13 / 500MHz	3.3	1.75	130	N/A	N/A	N/A
UT02X130□ 17N	17	$\pm 1/2/3/5\%$	13 / 500MHz	3.1	1.95	100	18	2%	LQP15MN18NG00
UT02X130□ 18N	18	$\pm 1/2/3/5\%$	13 / 500MHz	3.1	2.15	100	N/A	N/A	N/A
UT02X130□ 20N8	20.8	$\pm 1/2/3/5\%$	13 / 500MHz	2.8	2.55	90	22	2%	LQP15MN22NG00
UT02X130□ 22N	22	$\pm 1/2/3/5\%$	13 / 500MHz	2.8	2.65	90	N/A	N/A	N/A
UT02X130□ 25N7	25.7	$\pm 1/2/3/5\%$	13 / 500MHz	2.5	3.25	75	27	2%	LQP15MN27NG00
UT02X130□ 27N	27	$\pm 1/2/3/5\%$	13 / 500MHz	2.5	3.25	75	N/A	N/A	N/A
UT02X130□ 31N6	31.6	$\pm 1/2/3/5\%$	13 / 500MHz	2.5	4.5	75	33	2%	LQP15MN33NG00
UT02X130J 33N	33	$\pm 5\%$	13 / 500MHz	2.5	4.5	75	N/A	N/A	N/A

Operating Temperature Range : -40°C to $+85^{\circ}\text{C}$

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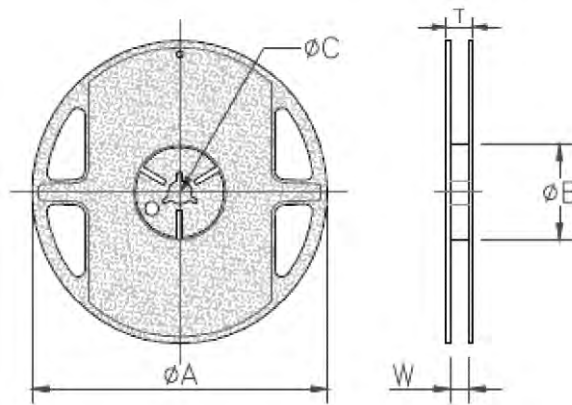
ENVIRONMENTAL CHARACTERISTICS

Item	Requirement	Test Method
Bending Strength	As Spec.	JIS-C-5201-1 6.1.4 Bending Amplitude 3mm for 10 seconds
Insulation Resistance	>1000M	MIL-STD-202 Method 302 Apply 100VDC for 1 minute
Dielectric Withstand Voltage	By type	MIL-STD-202 Method 301 Apply Max Overload Voltage for 1 minute
Solderability	95% min. coverage	MIL-STD-202 Method 208H 245°C±5°C · 3±0.5(sec)
Resistance to Soldering Heat	$\Delta L \leq 10\%$	MIL-STD-202 Method 210E 260±5°C, 10±1 seconds
High Temperature Exposure	$\Delta L \leq 10\%$	JIS-C-5201-1 7.285±2°C, 1000 +48/-0 hours
Low Temperature Storage	$\Delta L \leq 10\%$	JIS-C-5201-1 7.1-40±3°C, 1000 +48/-0 hours
Moisture Resistance	$\Delta L \leq 10\%$	MIL-STD-202 Method 103B 40±2°C, 90~95%RH, 1000 +48/-0 hours
Temperature Cycle	$\Delta L \leq 10\%$	JIS-C-5201-1 7.4-40/RT/85/RT, 10 cycles

*Storage Temperature :25±3°C; Humidity <80%RH

PACKAGING

Type	Φ A	Φ B	Φ C	W	T	Quantity (EA)
UT01	178±1.0	60.0±1.0	13.5±0.70	9.5±1.0	11.5±1.0	10,000
UT02	178±1.0	60.0±1.0	13.5±0.70	9.5±1.0	11.5±1.0	10,000



TAPING DIMENSION

Type	A	B	W	E	F	P0	P1	P2	Φ D0	T
UT01	0.40±0.05	0.70±0.05	8.00±0.10	1.75±0.05	3.50±0.05	4.00±0.10	2.00±0.05	2.00±0.05	1.55±0.03	0.42±0.02
UT02	0.70±0.05	1.16±0.05	8.00±0.10	1.75±0.05	3.50±0.05	4.00±0.10	2.00±0.05	2.00±0.05	1.55±0.05	0.40±0.03

