



The LQN21A Series consists of air-core chip coils using a subminiature alumina core as a bobbin. The High Q values at high frequencies and high self-resonant frequencies make this coil perfect for use in the high frequency circuits of communications equipment.

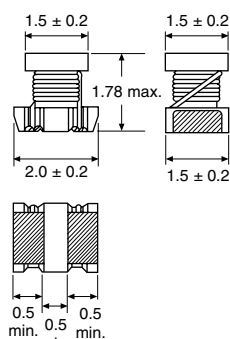
### FEATURES

- LQN21A□□□□04
  - Broad inductance range
  - Inductance tolerance:  $\pm 0.5\text{nH}$  ( $\leq 8.2\text{nH}$ );  $\pm 5\%$  (10nH–470nH)
- LQN21A
  - Tight Inductance Tolerance  $\pm 2\%$
- LQN21A□□□□44
  - High Q •High Rated Current •Low DCR

### PART NUMBERING SYSTEM

<b>LQN</b>	<b>21</b>	<b>A</b>	<b>3N3</b>	<b>D</b>	<b>04</b>	<b>M00</b>
<b>TYPE</b> LQN: Non-epoxy coated	<b>SIZE</b> 21: 2.0 x 1.5mm (0805)	<b>CORE MATERIAL</b> A: Air Core	<b>INDUCTANCE CODE</b> 3N3: 3.3nH	<b>TOLERANCE</b> D: $\pm 0.5\text{nH}$ J: $\pm 5\%$ G: $\pm 2\%$	<b>ELECTRODE MATERIAL</b> 04/44: Nickel & Solder	<b>UNMARKED</b>

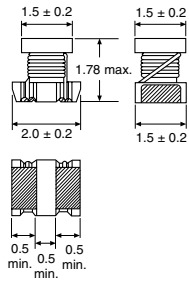
### SPECIFICATIONS

Dimensions: mm	Part Number	Inductance			Q ※1		DC Resistance (Ohms max.)	※2 Self-resonant Frequency (MHz min.)	Allowable Current (mA)	Operating Temp. Range			
		Nominal Value (nH)	Tolerance	Test Frequency (MHz)	Peak Value (Typ.)	Minimum Value							
<b>0805</b> 	*LQN21A3N3D04	3.3	$\pm 0.5\text{nH}$	100	70	10	250	0.05	6000	910			
	*LQN21A6N8D04	6.8				20					0.11	5400	680
	*LQN21A8N2D04	8.2			80	0.12							
	*LQN21A10NJ04	10									65	0.11	3200
	*LQN21A12NJ04	12			70	0.10							
	*LQN21A15NJ04	15									70	0.09	2100
	*LQN21A18NJ04	18			65	0.17							
	*LQN21A22NJ04	22									80	0.15	1900
	*LQN21A27NJ04	27			80	0.09							
	*LQN21A33NJ04	33									65	0.23	1600
	*LQN21A39NJ04	39	70	0.26	1500	430							
	*LQN21A47NJ04	47					65	0.23	1200	460			
	*LQN21A56NJ04	56	60	0.42	1100	320							
	*LQN21A68NJ04	68					70	0.38	900	350			
	*LQN21A82NJ04	82	50	0.40	750	320							
	*LQN21AR10J04	100					45	0.47	350	390			
	*LQN21AR12J04	120	35	0.71	700	250							
	*LQN21AR15J04	150					35	0.70	500	240			
	*LQN21AR18J04	180	50	2.00	550	190							
	*LQN21AR22J04	220					15	2.20	500	180			
	*LQN21AR27K04	270	15	2.50	400	170							
	*LQN21AR33K04	330					15	2.80	350	160			
	*LQN21AR39K04	390	10	2.80	350	160							
	*LQN21AR47K04	470					10	2.80	350	160			
	<b>Tight Tolerance</b>												
		*LQN21A33NG04	33	$\pm 2\%$	100	70	10	250	0.15	1900	570		
		*LQN21A33NG04	39				20					0.09	1700
		*LQN21A33NG04	47			80	0.23						
		*LQN21A33NG04	56									65	0.26
		*LQN21A33NG04	68			70	0.23						
		*LQN21A33NG04	82									30	0.42
		*LQN21AR10G04	100			70	0.55						
	*LQN21AR12G04	120	65									0.40	750
	*LQN21AR15G04	150				80	0.68						
	*LQN21AR18G04	180	80									0.71	700
	*LQN21AR22G04	220		80	0.02	500	240						

※1: Measured with LCR meter YHP4191A, measuring tap 16193A. ※2: Measured with Network Analyzer HP8753C.

\*Available as standard through authorized Murata Electronics Distributors.

### SPECIFICATIONS

Dimensions: mm	Part Number	Inductance			Q				DC Resistance (Ohms max.)	Self-resonant Frequency (MHz min.)	Allowable Current (mA)	Operating Temp. Range
		Nominal Value (nH)	Tolerance	Test Frequency (MHz)	Nominal Value (min.)	Test Frequency (MHz)	800 MHz (Typ.)	1.5 GHz (Typ.)				
	*LQN21A2N7D44	2.7	±0.5nH	100	20	250	85	120	0.02	6000	1900	-25°C ~ +85°C
	*LQN21A3N1D44	3.1						1800				
	*LQN21A3N3D44	3.3						1700				
	*LQN21A5N6D44	5.6						1500				
	*LQN21A6N8D44	6.8						5400			1400	
	*LQN21A8N6D44	8.6						3900			1300	
	*LQN21A10NJ44	10	±5%		85	100	0.03	3300	1320			
	*LQN21A12NK44	12	±10%		100	90	0.04	3200	1100			
	*LQN21A15NK44	15			3100	1000						
	*LQN21A18NK44	18.8			105	75	0.05	2600	950			
	*LQN21A21NK44	21			65	2200	950					
	*LQN21A27NK44	27			95	45	0.06	1800	900			

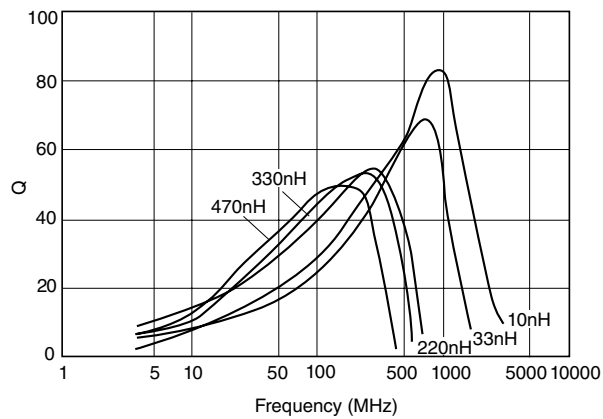
※1: Measured with LCR meter YHP4191A, measuring tap 16193A.

※2: Measured with Network Analyzer HP8753C.

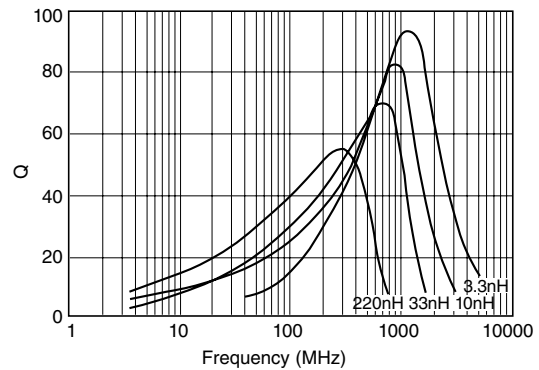
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### TYPICAL ELECTRICAL CHARACTERISTICS

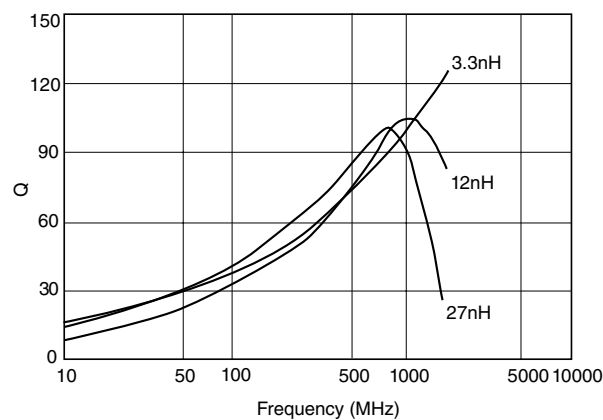
**Q-FREQUENCY CHARACTERISTICS**  
LQN21A□□□□04



**Q-FREQUENCY CHARACTERISTICS**  
LQN21A (Tight Inductance Tolerance)



**LQN21A□□□□44**



**INDUCTANCE-FREQUENCY CHARACTERISTICS**  
LQN21A□□□□44

