



NIC COMPONENTS CORP.

70 Maxess Road • Melville, New York 11747

(631) 396-7500 • Fax (631) 396-7575

<http://www.niccomp.com>

Technical Inquiries: tpmg@niccomp.com

PERFORMANCE CHARACTERISTICS

PRODUCTS: SMT FERRITE CHIP BEADS
SERIES: NCB & NCB-H

ENVIRONMENTAL TEST DATA:

- LOAD LIFE TEST DATA
- MOISTURE RESISTANCE TEST DATA
- THERMAL SHOCK TEST DATA
- TEMPERATURE AND HUMIDITY CYCLING TEST DATA
- RESISTANCE TO SOLVENTS TEST DATA
- RESISTANCE TO SOLDERING HEAT TEST DATA
- VIBRATION TEST DATA



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RELIABILITY TEST

TEST: LIFE TEST DATE: 0311-031594
 DESCRIPTION: NCBY321611 (1206 size) FERRITE CHIP BEAD
 TEST EQUIPMENT: HP4191A IMPEDANCE ANALYZER FREQUENCY: 100MHZ
 HUMIDEX-520 TEST CHAMBER

TEST CONDITIONS:
 TEMPERATURE: +85C +/- 2C
 HUMIDITY: 20%
 RATED DC CURRENT: 500mA
 TEST DURATION: 96 HOURS

SPEC.: IMPEDANCE SHALL BE WITHIN +/-20% OF THE INITIAL VALUE.

TEST RESULTS:

NO	INITIAL VALUE		AFTER TEST		(Z2-Z1)/Z1
	Z1		Z2		
1	94.60		94.8		0.21%
2	94.30		94.8		0.53%
3	94.80		95.2		0.42%
4	94.60		98.8		2.33%
5	94.80		95.7		0.95%
6	95.20		95.8		0.63%
7	95.60		95.3		0.73%
8	95.30		95.8		0.52%
9	95.70		98.7		1.04%
10	94.90		95.7		0.32%
KAX.	95.70		95.80		2.33%
MIN.	94.30		94.80		0.21%
AVG.	94.98		95.71		

ANALYSIS : OK

APPROVED BY :

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CHECKED BY :

DRAWN BY :



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RELIABILITY TEST

TEST: THERMAL SHOCK DATE: 0303-030494
 DESCRIPTION: NCBY321611 (1206 size) FERRITE CHIP BEAD
 TEST EQUIPMENT: HP4191A IMPEDANCE ANALYZER FREQUENCY: 100MHZ
 HUMIDEX-520 TEST CHAMBER

TEST CONDITIONS:
 TEMPERATURE: -25C , +85C
 TEST DURATION: 30 MINUTES EACH
 CYCLES: FIVE

SPEC.: IMPEDANCE SHALL BE WITHIN +/-20% OF THE INITIAL VALUE.

TEST RESULTS:

NO	INITIAL VALUE		AFTER TEST		(Z2-Z1)/Z1
	Z1		Z2		
1	94.80		95.3		0.58%
2	99.30		99.8		0.52%
3	96.30		96.8		0.52%
4	95.80		96.2		0.42%
5	94.90		95.2		0.32%
6	95.80		96.3		0.52%
7	98.20		98.7		0.52%
8	98.20		98.3		0.10%
9	95.70		95.8		0.10%
10	98.30		98.5		0.21%
MAX.	98.20		98.30		0.33%
MIN.	94.80		95.20		0.10%
AVG.	95.93		96.29		

ANALYSIS : OK

APPROVED BY :

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RELIABILITY TEST

TEST: TEMPERATURE AND HUMIDITY CYCLE DATE: 0318-032094
 DESCRIPTION: NCBY321611 (1206 size) FERRITE CHIP BEAD
 TEST EQUIPMENT: HP4191A IMPEDANCE ANALYZER FREQUENCY: 100MHZ

TEST CONDITIONS:
 (1.) +25C +/-2C, 95-100% RH, 3 HOURS
 (2.) +55C +/-2C, 95-96% RH, 9.5HOURS
 (3.) +25C +/-2C, 95-100% RH, 9.5 HOURS
 CYCLES: SIX

SPEC.: IMPEDANCE SHALL BE WITHIN +/-20% OF THE INITIAL VALUE.

TEST RESULTS:

NO	INITIAL VALUE		AFTER TEST		(Z2-Z1)/Z1
	Z1		Z2		
1	98.3		95.5		0.21%
2	95.8		96.2		0.42%
3	95.4		95.8		0.21%
4	94.9		95.1		0.21%
5	94.8		95.9		0.53%
6	95.3		95.2		0.94%
7	95.5		95.8		0.21%
8	95.8		96.2		0.42%
9	95.6		95.9		0.31%
10	96.3		96.6		0.82%
MAX.	96.30		96.80		0.94%
MIN.	94.80		95.10		0.21%
AVG.	95.48		95.86		

ANALYSIS : OK

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RELIABILITY TEST

TEST: IR REFLOW SOLDERING HEAT
 DESCRIPTION: NCBY321611 (1206 size) FERRITE CHIP BEAD
 TEST EQUIPMENT: HP4191A IMPEDANCE ANALYZER
 IR OVEN

DATE: 032194
 FREQUENCY: 100MHZ

TEST CONDITIONS:
 TEMPERATURE: +250C
 TIME: 5 MINUTES
 CYCLES: ONE

SPEC.: IMPEDANCE SHALL BE WITHIN +/-20% OF THE INITIAL VALUE.

TEST RESULTS:

NO	INITIAL VALUE		AFTER TEST		(Z2-Z1)/Z1
	Z1	Z2	Z1	Z2	
1	95.6	95.8	95.8	95.8	0.21%
2	95.8	96.2	96.2	96.2	0.42%
3	95.8	96.7	96.7	96.7	0.94%
4	95.7	95.9	95.9	95.9	0.21%
5	96.2	96.8	96.8	96.8	0.62%
6	96.3	96.8	96.8	96.8	0.52%
7	94.3	95.3	95.3	95.3	0.42%
8	95.8	96.3	96.3	96.3	0.52%
9	95.1	95.8	95.8	95.8	0.74%
10	95.2	95.9	95.9	95.9	0.74%
MAX.	96.30	96.80	96.80	96.80	0.94%
MIN.	94.90	95.30	95.30	95.30	0.21%
AVG.	95.64	96.15	96.15	96.15	

ANALYSIS : OK

APPROVED BY :

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RELIABILITY TEST

TEST: VIBRATION DATE: 0301-0302
 DESCRIPTION: NCBY321611 (1206 size) FERRITE CHIP BEAD
 TEST EQUIPMENT: HP4191A IMPEDANCE ANALYZER FREQUENCY: 100MHZ
 VIBRATION TESTER

TEST CONDITIONS:
 FREQUENCY: 10HZ TO 55HZ
 AMPLITUDE: 1.5MM
 DIRECTION: X, Y, Z AXIS
 TIME: 2 HOURS EACH AXIS

SPEC.: IMPEDANCE SHALL BE WITHIN +/-20% OF THE INITIAL VALUE.

TEST RESULTS:

NO	INITIAL VALUE		AFTER TEST		(Z2-Z1)/Z1
	Z1		Z2		
1	89.60		90.3		0.78%
2	94.60		94.8		0.21%
3	94.80		95.2		0.42%
4	95.20		95.8		0.83%
5	95.30		96.7		1.47%
6	94.70		94.9		0.21%
7	95.00		96.2		0.42%
8	95.20		96.3		0.10%
9	96.30		96.8		0.52%
10	94.90		95.2		0.32%
MAX.	96.30		99.80		1.47%
MIN.	89.60		90.30		0.10%
AVG.	94.74		95.22		

ANALYSIS : OK

APPROVED BY :

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