



SYNTON-TECH CORPORATION
CHIP NETWORK

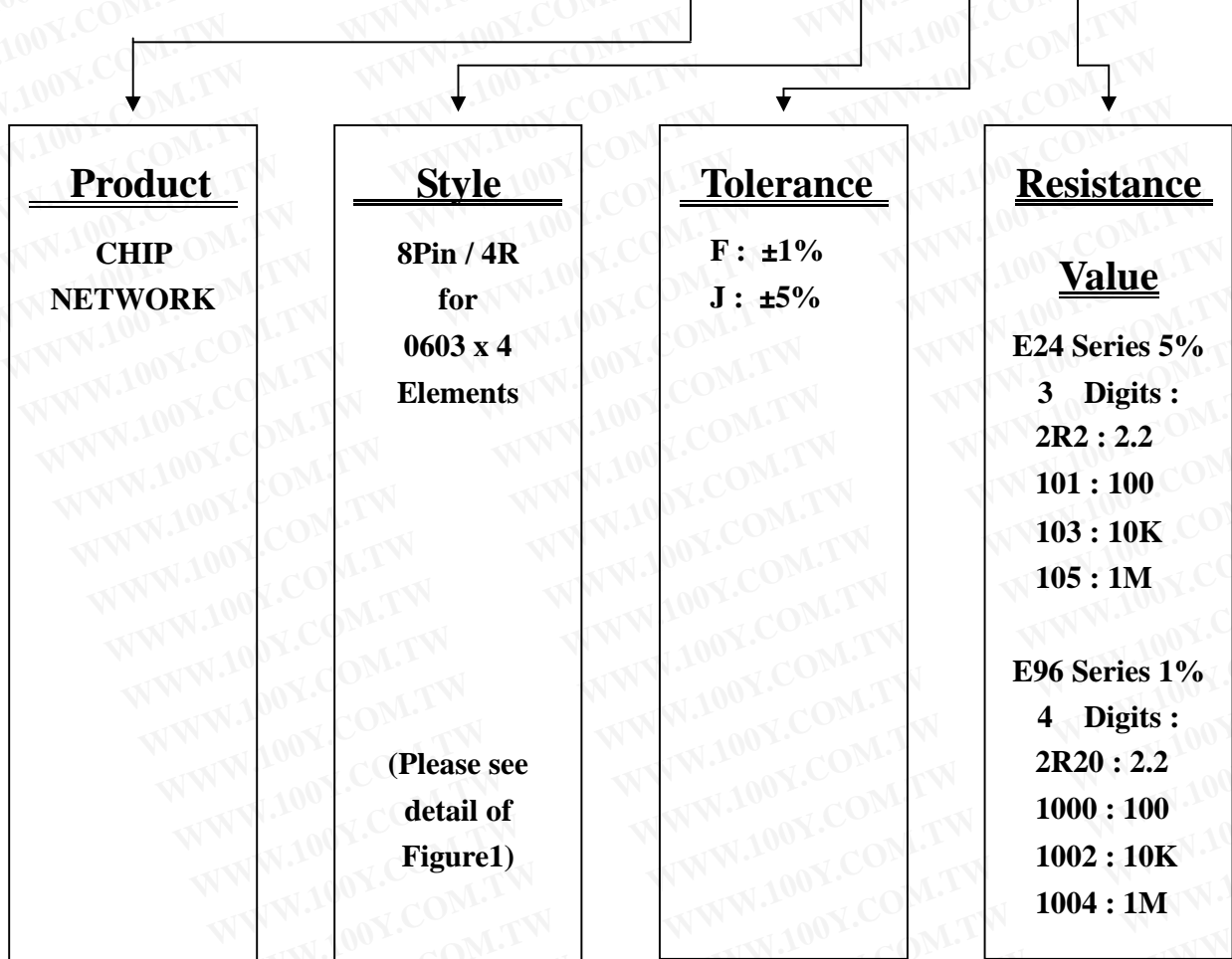
File No.:	YC16-02
Version:	A
Page:	1/11
Date:	2006.01.01

1.SUBJECT : This specification applies on the chip resistors network made by SYNTON-TECH's Corporation.

2.PART NUMBER : Part number of the chip resistor is identified by the No. of Resistors, tolerance, and resistance value .

Example : **DESCRIPTION : YC16 8P4R 5% 10K**

SYNTON CODE : YC16 4R J 103



APPROVED	CHECKED	DESIGNED	REMARK	DOCUMENT NO.
Carol	May	Chen		0201010069

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 勝特力电子(上海) 86-21-54151736
 勝特力电子(深圳) 86-755-83298787
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CHIP NETWORK

File No.:	YC16-02
Version:	A
Page:	2/11
Date:	2006.01.01

3.ELECTRICAL CHARACTERISTICS

STYLE	YC16
POWER	1/10W (0603)
Maximum Working Voltage	50V
Maximum Overload Voltage	100V
Dielectric Withstand Voltage	100V
No.of resistors	4R
Resistance Range	0Ω, 10Ω ~ 1MΩ
Operating Temp. Range	-55 ~ +125
Temperature Coefficient (± PPM / °C)	±200PPM/°C

Figure 1

4. POWER RATING

(1)**Power Derating** : The rated power at the temperature in excess of 70 °C shall be derated in accordance with figure3

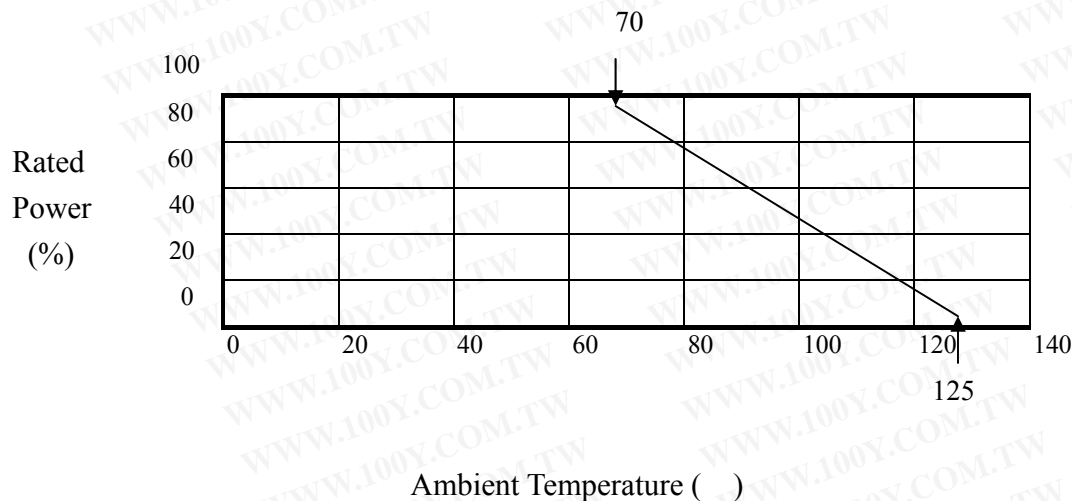


Figure2

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File No.:	YC16-02
Version:	A
Page:	3/11
Date:	2006.01.01

(2) **Rated Voltage** : The DC or AC(rms) continuous working voltage corresponding to the rated power is determined by the following formula:

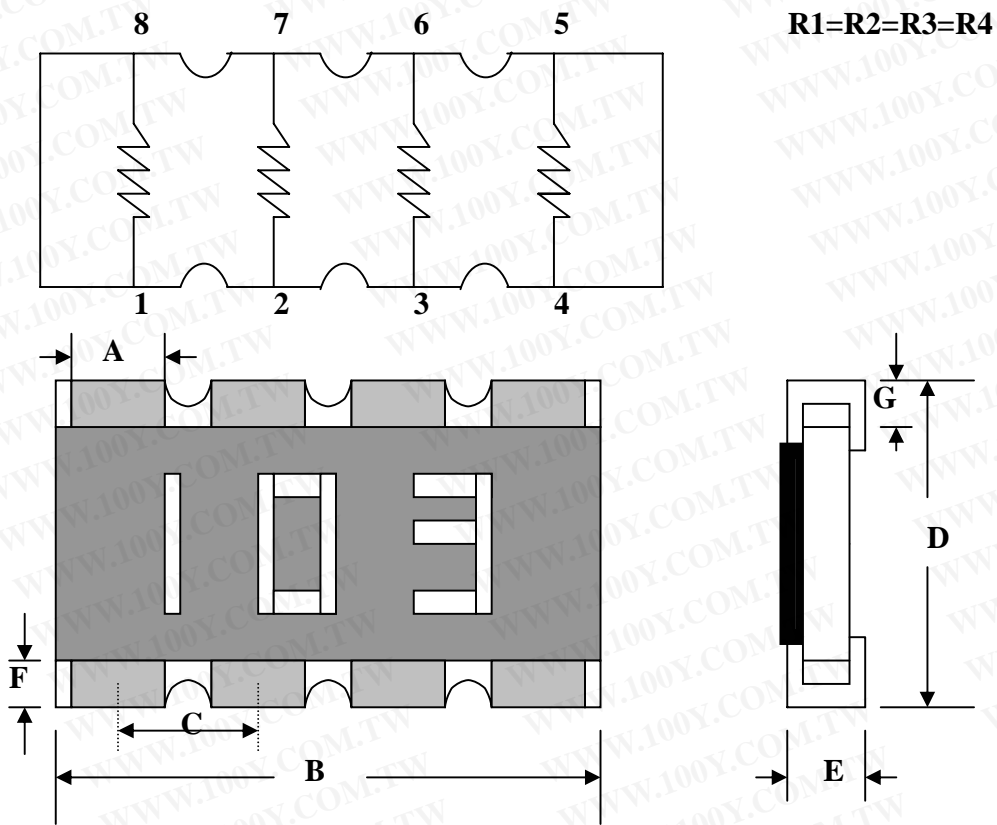
$$V = \sqrt{R \times P}$$

Where V : Continuous rated DC or AC (rms) working voltage (v)

P : Rated power (w)

R : Resistance value ()

5. DIMENSIONS YC16(8Pin/4R)



Unit:m/m

TYPE	NUMBER OF RESISTORS	A	B	C	D	E	F	G
YC16	8P4R	0.5±0.15	3.2±0.2	0.8±0.05	1.6±0.2	0.6±0.1	0.3±0.15	0.3±0.15

Figure3

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CHIP NETWORK

File No.:	YC16-02
Version:	A
Page:	4/11
Date:	2006.01.01

6. CHARACTERISTICS

(1) Temperature Coefficient of Resistance(T.C.R.)

Test Method : Measure resistance at +25 or specified room temperature as R1, then measure at -55 and +125 respectively as R2.

Determine the temperature coefficient of Resistance from the following formula.

$$\text{T. C. R.} = \frac{\text{R2} - \text{R1}}{\text{R1} (\text{t2} - \text{t1})} \times 10^6 \text{ (ppm /)}$$

Where t1 = +25 or specified room temperature
t2 = -55 or +125 ±3

(2) Thermal Shock

Test Method : -55 for 2 minutes and +125 for 2 minutes as One cycle, fter 5 cycles the specimen shall be Stabilized at room temperature for one hour Minimum and then measure the R/R(%).

Acceptance Standard : ±(1.0%+0.05)

(3) Low Temperature Operation

Test Method :Place the specimen in a test chamber maintained at -55 . After one hour stabilization at this temperature, full rated working voltage shall be applied for 45 minutes. 15 minutes after remove the voltage, the specimen shall be removed from the chamber and stabilized at room temperature for 24 hours minimum. Measure R/R(%).

Acceptance Standard : ±(1.0%+0.05) No mechanical damage.

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SYNTON-TECH CORPORATION
CHIP NETWORK

File No.:	YC16-02
Version:	A
Page:	5/11
Date:	2006.01.01

(4) Short Time Overload

Test Method : Apply 2.5 times of rated voltage but not exceeding the maximum overload voltage 1 for 5 seconds. Have the specimen stabilized at room temperature for 30 minutes minimum. Measure the R/R(%).

Acceptance Standard : $\pm(2.0\%+0.05)$) No evidence of mechanical damage.

(5) High Temperature Exposure

Test Method : Place the specimen in an oven at 125 ± 5 for 100 hours. Remove the specimen from the oven and stabilize at room temperature for one hour minimum. Measure the R/R(%).

Acceptance Standard : $\pm(2.0\%+0.1)$)

(6) Resistance to Soldering Heat

Test Method : Immerse the specimen in the solder pot at 260 ± 5 for 10 ± 1 seconds. Have the specimen stabilized at room temperature for 30 minutes minimum. Measure the R/R(%).

Acceptance Standard : $\pm(1.0\%+0.05)$)

(7) Moisture Resistance

Test Method : Place the specimen in a test chamber at 40 ± 2 and 90~95% relative humidity. Apply the rated voltage to the specimen at the 1.5 hours on and 0.5 hour off cycle. The total length of test is 1000 +48/-0 Hrs. After the test, have the specimen stabilized at room temperature for one hour minimum. Measure the R/R(%).

Acceptance Standard : $\pm(3.0\%+0.1)$)

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CHIP NETWORK

File No.:	YC16-02
Version:	A
Page:	6/11
Date:	2006.01.01

(8) Load Life

Test Method : Place the specimen in the oven at 70 ± 2 . Apply the rated voltage to the specimen at 1.5 hours on and 0.5 hour off cycle. The total length of test is $1000 +48/-0$ hours. After the test have the specimen stabilized at room temperature for one hour minimum and measure the R/R(%).

Acceptance Standard : $\pm(3.0\%+0.1)$)

(9) Solderability

Test Method : Immerse the specimen in the solder pot at 245 ± 5 for 5 seconds

Acceptance Standard : At least 95% solder coverage on the termination

(10) Bending Strength

Test Method : Mount the specimen on a test board . Slowly apply the force till the board is bend at $5+0.2$ mm for 5 ± 1 seconds, and measure the R/R(%) at this position.

Acceptance Standard : $\pm(1.0\%+0.05)$)

(11) Insulation Resistance

Test Method : Place the specimen in the jig and apply a 500Vdc voltage for one minute. Measure the insulation resistance.

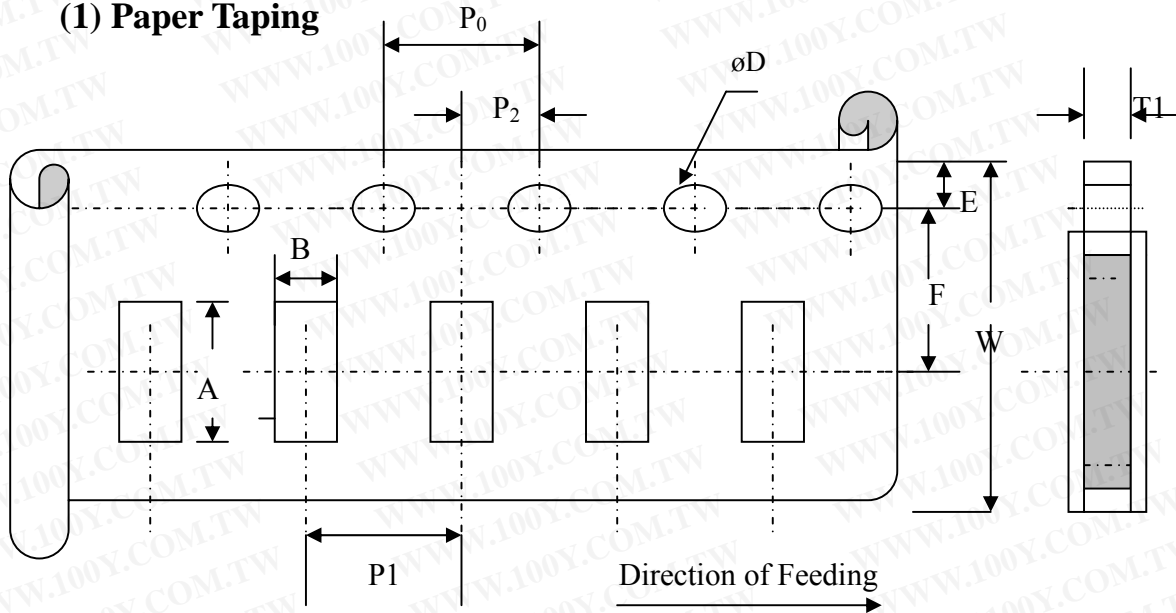
Acceptance Standard : $10^3 M$ minimum.

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7. TAPING SPECIFICATIONS

(1) Paper Taping

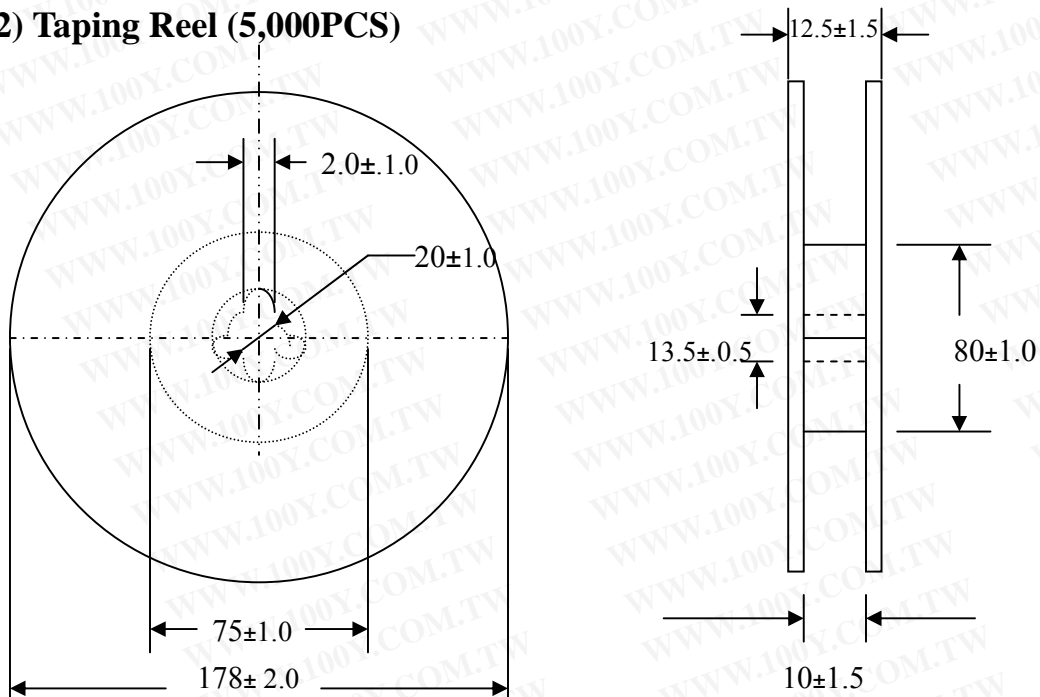


Unit:(mm)

TYPE	Numberof Resistors	A	B	W	E	F	T1	P1 , P0	P2	D
YC16	8P4R	3.6±0.1	2.0±0.1	8.0±0.2	1.75±0.1	3.5±0.05	0.75±0.1	4.0±0.1	2.0±0.05	1.5±0.1

Figure4

(2) Taping Reel (5,000PCS)



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CHIP NETWORK

File No.:	YC16-02
Version:	A
Page:	8/11
Date:	2006.01.01



Test Report

SYNTECH CORPORATION
*16F-3, NO. 79, FAR EAST WORLD CENTER SEC. 1,
HSIN TAI WU ROAD, HSI-CHIH TAIPEI HSIEN,
TAIWAN, R. O. C
DONG GUAN PLANT
*SHUI KOU INDUSTRIAL ZONE, DA LANG,
DONG GUAN, GUANG DONG, CHINA

Report No. : CE/2005/81092A
Date : 2005/08/11
Page : 1 of 4

The following merchandise was (were) submitted and identified by the client as :

Type of Product : CHIP RESISTORS / LEAD-FREE PLATING LAYER
Style/Item No : RC, YC TYPE
Sample Received : 2005/08/04
Testing Date : 2005/08/04 TO 2005/08/11

Test Result : - Please see the next page -

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Daniel Yen, M.F. / Operation Manager
Signed for and on behalf of
SGS TAIWAN LTD.

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File No.:	YC16-02
Version:	A
Page:	9/11
Date:	2006.01.01



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Report No. : CE/2005/81092A
 Date : 2005/08/11
 Page : 2 of 4

Test Result

PART NAME NO.1 : SILVER COLORED METAL PLATING LAYER
 (PLEASE REFER TO THE PHOTO ATTACHED)

Test Item (s):	Unit	Method	MDL	Result
				No. 1
Monobromobiphenyl	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.
Dibromobiphenyl	%		0.0005	N.D.
Tribromobiphenyl	%		0.0005	N.D.
Tetrabromobiphenyl	%		0.0005	N.D.
Pentabromobiphenyl	%		0.0005	N.D.
Hexabromobiphenyl	%		0.0005	N.D.
Heptabromobiphenyl	%		0.0005	N.D.
Octabromobiphenyl	%		0.0005	N.D.
Nonabromobiphenyl	%		0.0005	N.D.
Decabromobiphenyl	%		0.0005	N.D.
Total PBBs(Polybrominated biphenyls)/Sum of above	%		-	N.D.
Monobromobiphenyl ether	%	With reference to USEPA3540C or USEPA3550C. Analysis was performed by HPLC/DAD, LC/MS or GC/MS. (prohibited by 2002/95/EC (RoHS), 83/264/EEC, and 76/769/EEC)	0.0005	N.D.
Dibromobiphenyl ether	%		0.0005	N.D.
Tribromobiphenyl ether	%		0.0005	N.D.
Tetrabromobiphenyl ether	%		0.0005	N.D.
Pentabromobiphenyl ether	%		0.0005	N.D.
Hexabromobiphenyl ether	%		0.0005	N.D.
Heptabromobiphenyl ether	%		0.0005	N.D.
Octabromobiphenyl ether	%		0.0005	N.D.
Nonabromobiphenyl ether	%		0.0005	N.D.
Decabromobiphenyl ether	%		0.0005	N.D.
Total PBDEs(PBDEs(Polybrominated biphenyl ethers)/Sum of above	%		-	N.D.

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File No.:	YC16-02
Version:	A
Page:	10/11
Date:	2006.01.01



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Report No. : CE/2005/81092A
Date : 2005/08/11
Page : 3 of 4

Test Item (s):	Unit	Method	MDL	Result
				No.1
Chromium VI (Cr+6)	ppm	UV-VIS after reference to US EPA 3060A.	2	N.D.
Cadmium (Cd)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.
Mercury (Hg)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	N.D.
Lead (Pb)	ppm	ICP-AES after reference to US EPA 3052 or other acid digestion.	2	17.1

NOTE: (1) N.D. = Not detected (<MDL)
(2) ppm = mg/kg
(3) MDL = Method Detection Limit
(4) " - " = No Regulation

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File No.:	YC16-02
Version:	A
Page:	11/11
Date:	2006.01.01



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Date : 2005/08/11
Page : 4 of 4



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1001