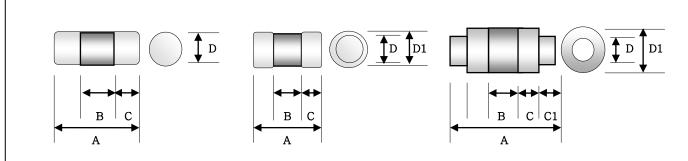


Rod Termination Resistors CQT

Power: 20W to 100W Resistance: 50 ohm

Frequency: DC to 28GHz





 $\label{eq:Type B} \text{Type B} \qquad \qquad \text{Type C}$

Dimensions (Unit: mm)

Part	Туре	A	В	С	C1	D	D1
CQT02R	А	2.70	1.00	0.90		1.30	
CQT02R	В	3.00	1.20	0.90		1.30	1.63
CQT05R	А	5.20	2.20	1.50		1.70	
CQT10R	А	10.00	5.60	2.20		3.00	
CQT20R	А	14.00	5.60	4.20		4.50	
CQT50R	А	23.00	10.00	6.50		7.00	
CQT50RA	С	25.3	14.50	2.20	3.20	5.20	6.20
CQT100R	А	19.00	9.00	5.00		9.50	

Ordering Information

Part No.	RF Power	Frequency	TCR	Resistance	Tolerance	Package	Condition
CQT02R-500AG	2W	DC to 12GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	1000	OEM
CQT02R-500UG	2W	DC to 28GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	1000	OEM
CQT02R-500C	2W	DC to 6GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	1000	Standard
CQT05R-500AG	5W	DC to 12GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	1000	Standard
CQT10R-500NI	10W	DC to 8GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	1000	Standard
CQT20R-500AG	20W	DC to 10GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	100	OEM
CQT50R-500AG	50W	DC to 10GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	100	OEM
CQT50RA-500AG	50W	DC to 12GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	100	OEM
CQT100R-500AG	100W	DC to 10GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	100	OEM

Planed by	WY. Choi	Product Specification	Part No.
Drew by	YoWang	Title and Description	
Drew date	Aug04,2017		CQT02R-500AG
Up date	Sep14,2020	RF Power Termination Resistor	

CQT02R-500AG 는 초고열전도성, 비유전율의 고순도 소재를 사용한 종단용 박막저항입니다. 마이크로파와 고주파 영역에서 무 유도적이고, 열전도성이 좋아 고주파용 제품에 장시간 사용해도 안정적입니다.

- 용도

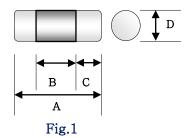
이동통신중계기, 고주파증폭기, 고주파계측기, 고주파전원장치, 고압전원장치, 의료용장비, 방송장비

1. Dimensional specifications are detailed per the following draft of Fig.1(Unit: mm)

Power: 2W

Frequency: DC to 12GHz

VSWR (Max): 1.20: 1



Туре	A	В	С	D
Rod	5.20	2.20	1.50	1.70

Table 1. Type Designations

Part No.	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT02R-500AG	2W	DC to 12GHz	C (50ppm/℃)	50 ohm	+/-1%, +/- 3%	1000

Table 2. Ordering Information

2. Note

2-1. Model

Model description shall be as CQT02R-500AG

2-2. TC (Temperature Coefficient of Resistance)

TC shall be only +/-200ppm/K and expressed as C

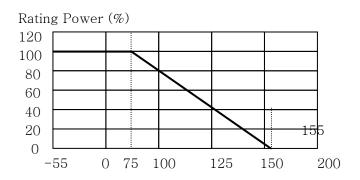
2-3. Resistance Tolerance.

Resistance Tolerance shall be $\pm 1/-1\%$, $\pm 1/-3\%$

2-4. Additional Process Code Terminal conductor, solder plated Ag

3-1. Rating Power with Heat Sink (Fig.2)

Resistors have power rating based on full load operation at terminals temperature from - 55C to +155C. Operating power shall be derated as figure 2 in operating at excess of +155C of terminal temperature.



Terminal Temperature (C)

Fig.2 Power derating

3-2. General Electrical Specifications. (Table 3.)

Items	Specification	Condition
Rating Power	2W	3-1
Resistance Values	50 ohm	Standard
Frequency	DC to 12GHz	
Temp. Coefficient of Resistance.	+/-200ppm/C	-55C to +155C
Tolerance of Resistance	+/-3%	Standard
Equivalent Parallel Capacitance	1.0 pF Max.	
Equivalent Parallel Inductance	3.5nH	

Table 3. General Specifications

Electrical and mechanical performance will be shown as Table 4.

Items	Specifications	Test Conditions
Operation Temp. Range	-55- +155 C	
Storage Temp. Range	-55 - +155 C	
Withstanding Voltage	1,500 Volt	60 seconds.
Load Life	+/-(1.0 %+0.05 ohm)	25C, 90min.ON, 30min.OFF, 1000hours.
Humidity	+/- (1.0 %+0.05 ohm)	40C, 90-95%RH, DC 0.1W, 1000hours.
Temperature Cycle	+/- (0.25 %+ 0.05 ohm)	-55C, 30 min., +155C 30min., 5cycles.
Soldering Heat	+/- (0.25 %+0.05 ohm)	350+/-5C, 3seconds,
Solderability	Over 3/4 of surface	230+/-5C, 3seconds.
Insulation Resistance	Over 1000 M ohm	Between terminals and resistor body.
Vibration	+/- (0.25 %+ 0.05 ohm)	

Table 4. Electrical and Mechanical Performance

5. Quality Assurance

Cqtel shall be assure to the CiTEL customers of the resistors quality. Receiving fault report from the customer, analyzing the cause of fault and reporting of QA to the customer shall be obligation of Cqtel, because brand of the resistor and type CQT02R-500AG is right of CiTEL.

6. Country of Origin

The resistors are produced at main factory of CiTEL Co., Ltd.

End of specifications

Planed by	WY. Choi	Product Specification	Part No.
Drew by	YoWang	Title and Description	
Drew date	Aug04,2005		CQT02R-500C
Up date	Sep14,2020	RF Power Termination Resistor	

CQT02R-500C는 초고열전도성, 비유전율의 고순도 소재를 사용한 종단용 박막저항입니다. 마이크로파와 고주파 영역에서 무 유도적이고, 열전도성이 좋아 고주파용 제품에 장시간 사용해도 안정적입니다.

- 용도

이동통신중계기, 고주파증폭기, 고주파계측기, 고주파전원장치, 고압전원장치, 의료용장비, 방송장비

1. Dimensional specifications are detailed per the following draft of Fig.1(Unit: mm)

Power : 2W

Frequency: DC to 6GHz VSWR (Max): 1.20: 1

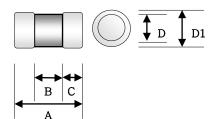


Fig.1

Туре	A	В	С	D	D1
Rod Cap	3.00	1.20	0.90	1.30	1.63

Table 1. Type designations

Part No.	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT02R-500C	2W	DC to 6GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	1000

Table 2. Ordering Information

2. Note

2-1. Model,.

Model description shall be as CQT02R-500C

2-2. TC (Temperature Coefficient of Resistance)

TC shall be only +/-200ppm/K and expressed as C

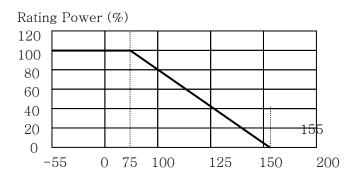
2-3. Resistance Tolerance.

Resistance Tolerance shall be $\pm 1/-1\%$, $\pm 1/-3\%$

2-4. Additional Process Code Terminal conductor, solder plated Sn / Ni.

3-1. Rating Power with Heat Sink (Fig.2)

Resistors have power rating based on full load operation at terminals temperature from - 55C to +155C. Operating power shall be derated as figure 2 in operating at excess of +155C of terminal temperature.



Terminal Temperature (C)

Fig.2 Power derating

3-2. General Electrical Specifications. (Table 3.)

Items	Specification	Condition
Rating Power	2W	3-1
Resistance Values	50 ohm	Standard
Frequency	DC to 6GHz	
Temp. Coefficient of Resistance.	+/-200ppm/C	-55C to + 155C
Tolerance of Resistance	+/- 1%	Standard
Equivalent Parallel Capacitance	1.0 pF Max.	
Equivalent Parallel Inductance	3.5nH	

Table 3. General specifications

Electrical and mechanical performance will be shown as Table 4.

Items	Specifications	Test Conditions
Operation Temp. Range	-55- +155 C	
Storage Temp. Range	-55 - +155 C	
Withstanding Voltage	1,500 Volt	60 seconds.
Load Life	+/-(1.0 %+0.05 ohm)	25C, 90min.ON, 30min.OFF, 1000hours.
Humidity	+/- (1.0 %+0.05 ohm)	40C, 90-95%RH, DC0.1W, 1000hours.
Temperature Cycle	+/- (0.25 %+ 0.05 ohm)	-55C, 30 min., +155C 30min., 5cycles.
Soldering Heat	+/- (0.25 %+ 0.05 ohm)	350+/-5C, 3seconds,
Solderability	Over 3/4 of surface	230+/-5C, 3seconds.
Insulation Resistance	Over 1000 M ohm	Between terminals and resistor body.
Vibration	+/- (0.25 %+0.05 ohm)	

Table 4. Electrical and mechanical performance

5. Quality Assurance

Cqtel shall be assure to the CiTEL customers of the resistors quality. Receiving fault report from the customer, analyzing the cause of fault and reporting of QA to the customer shall be obligation of Cqtel, because brand of the resistor and type CQT02R-500C is right of CiTEL.

6. Country of Origin

The resistors are produced at main factory of CiTEL Co., Ltd.

End of specifications

Planed by	WY. Choi	Product Specification	Part No.
Drew by	YoWang	Title and Description	
Drew date	Aug04,2017		CQT05R-500AG
Up date	Sep14,2020	RF Power Termination Resistor	

CQT05R-500AG 는 초고열전도성, 비유전율의 고순도 소재를 사용한 종단용 박막저항입니다. 마이크로파와 고주파 영역에서 무 유도적이고, 열전도성이 좋아 고주파용 제품에 장시간 사용해도 안정적입니다.

- 용도

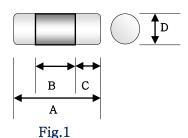
이동통신중계기, 고주파증폭기, 고주파계측기, 고주파전원장치, 고압전원장치, 의료용장비, 방송장비

1. Dimensional specifications are detailed per the following draft of Fig.1(Unit: mm)

Power: 5W

Frequency: DC to 12GHz

VSWR (Max): 1.20: 1



Туре	A	В	С	D
Rod	5.20	2.20	1.50	1.70

Table 1. Type designations

Part No.	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT05R-500AG	5W	DC to 12GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	1000

Table 2. Ordering Information

2. Note

2-1. Model..

Model description shall be as CQT05R-500AG

2-2. TC (Temperature Coefficient of Resistance)

TC shall be only +/-200ppm/K and expressed as C

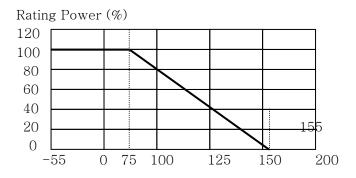
2-3. Resistance Tolerance.

Resistance Tolerance shall be $\pm 1/-1\%$, $\pm 1/-3\%$

2-4. Additional Process Code Terminal conductor, solder plated Ag.

3-1. Rating Power with Heat Sink (Fig.2)

Resistors have power rating based on full load operation at terminals temperature from - 55C to + 155C. Operating power shall be derated as figure 2 in operating at excess of + 155C of terminal temperature.



Terminal Temperature (C)

Fig.2 Power derating

3-2. General Electrical Specifications. (Table 3.)

Items	Specification	Condition
Rating Power	5W	3-1
Resistance Values	50 ohm	Standard
Frequency	DC to 12GHz	
Temp. Coefficient of Resistance.	+/-200ppm/C	-55C to + 155C
Tolerance of Resistance	+/-3%	Standard
Equivalent Parallel Capacitance	1.0 pF Max.	
Equivalent Parallel Inductance	3.5nH	

Table 3. General specifications

Electrical and mechanical performance will be shown as Table 4.

Items	Specifications	Test Conditions
Operation Temp. Range	-55- +155 C	
Storage Temp. Range	-55 - +155 C	
Withstanding Voltage	1,500 Volt	60 seconds.
Load Life	+/-(1.0 %+0.05 ohm)	25C, 90min. ON, 30min.OFF, 1000hours.
Humidity	+/- (1.0 %+0.05 ohm)	40C, 90-95%RH, DC0.1W, 1000hours.
Temperature Cycle	+/- (0.25 %+ 0.05 ohm)	-55C, 30 min., +155C 30min., 5cycles.
Soldering Heat	+/- (0.25 %+ 0.05 ohm)	350+/-5C, 3seconds,
Solderability	Over 3/4 of surface	230+/-5C, 3seconds.
Insulation Resistance	Over 1000 M ohm	Between terminals and resistor body.
Vibration	+/- (0.25 %+0.05 ohm)	

Table 4. Electrical and mechanical performance

5. Quality Assurance

Cqtel shall be assure to the CiTEL customers of the resistors quality. Receiving fault report from the customer, analyzing the cause of fault and reporting of QA to the customer shall be obligation of Cqtel, because brand of the resistor and type CQT05R-500AG is right of CiTEL.

6. Country of Origin

The resistors are produced at main factory of CiTEL Co., Ltd.

End of specifications

Planed by	WY. Choi	Product Specification	Part No.
Drew by	YoWang	Title and Description	
Drew date	Aug04,2005		CQT10R-500NI
Up date	Sep14,2020	RF Power Termination Resistor	

CQT10R-500NI는 초고열전도성, 비유전율의 고순도 소재를 사용한 종단용 박막저항입니다. 마이크로파와 고주파 영역에서 무 유도적이고, 열전도성이 좋아 고주파용 제품에 장시간 사용해도 안정적입니다.

- 용도

이동통신중계기, 고주파증폭기, 고주파계측기, 고주파전원장치, 고압전원장치, 의료용장비, 방송장비

1. Dimensional specifications are detailed per the following draft of Fig.1(Unit: mm)

Power: 10W

Frequency: DC to 8GHz VSWR (Max): 1.20: 1

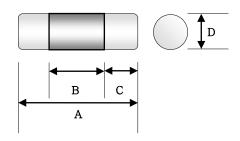


Fig.1

Туре	A	В	С	D
Rod	10.00	5.60	2.20	3.00

Table 1. Type designations

Part No.	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT10R-500NI	10W	DC to 8GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	100

Table 2. Ordering Information

2. Note

2-1. Model..

Model description shall be as CQT10R-500NI

2-2. TC (Temperature Coefficient of Resistance)

TC shall be only +/-200ppm/K and expressed as C

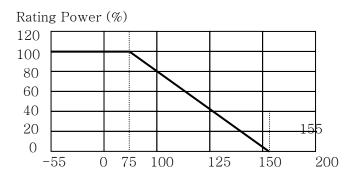
2-3. Resistance Tolerance.

Resistance Tolerance shall be +/-1%, +/-3%

2-4. Additional Process Code Terminal conductor, solder plated Ag.

3-1. Rating Power with Heat Sink (Fig.2)

Resistors have power rating based on full load operation at terminals temperature from - 55C to +155C. Operating power shall be derated as figure 2 in operating at excess of +155C of terminal temperature.



Terminal Temperature (C)

Fig.2 Power derating

3-2. General Electrical Specifications. (Table 3.)

Items	Specification	Condition
Rating Power	10W	3-1
Resistance Values	50 ohm	Standard
Frequency	DC to 8GHz	
Temp. Coefficient of Resistance.	+/-200ppm/C	-55C to +155C
Tolerance of Resistance	+/-3%	Standard
Equivalent Parallel Capacitance	1.0 pF Max.	
Equivalent Parallel Inductance	3.5nH	

Table 3. General specifications

Electrical and mechanical performance will be shown as Table 4.

Items	Specifications	Test Conditions
Operation Temp. Range	-55- +155 C	
Storage Temp. Range	-55 - +155 C	
Withstanding Voltage	1,500 Volt	60 seconds.
Load Life	+/-(1.0 %+0.05 ohm)	25C, 90min.ON, 30min.OFF, 1000hours.
Humidity	+/- (1.0 %+0.05 ohm)	40C, 90-95%RH, DC0.1W, 1000hours.
Temperature Cycle	+/- (0.25 %+0.05 ohm)	-55C, 30 min., + 155C 30min., 5cycles.
Soldering Heat	+/- (0.25 %+0.05 ohm)	350+/-5C, 3seconds,
Solderability	Over 3/4 of surface	230+/-5C, 3seconds.
Insulation Resistance	Over 1000 M ohm	Between terminals and resistor body.
Vibration	+/- (0.25 %+ 0.05 ohm)	

Table 4. Electrical and mechanical performance

5. Quality Assurance

Cqtel shall be assure to the CiTEL customers of the resistors quality. Receiving fault report from the customer, analyzing the cause of fault and reporting of QA to the customer shall be obligation of Cqtel, because brand of the resistor and type CQT10R-500NI is right of CiTEL.

6. Country of Origin

The resistors are produced at main factory of CiTEL Co., Ltd.

End of specifications

Planed by	WY. Choi	Product Specification	Part No.
Drew by	YoWang	Title and Description	
Drew date	Aug04,2019		CQT20R-500AG
Up date	Sep14,2020	RF Power Termination Resistor	

CQT20R-500AG 는 초고열전도성, 비유전율의 고순도 소재를 사용한 종단용 박막저항입니다. 마이크로파와 고주파 영역에서 무 유도적이고, 열전도성이 좋아 고주파용 제품에 장시간 사용해도 안정적입니다.

- 용도

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1. Dimensional specifications are detailed per the following draft of Fig.1(Unit: mm)

Power: 20W

Frequency: DC to 10GHz

VSWR (Max): 1.20: 1

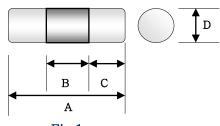


Fig.1

Туре	A	В	С	D
Rod	14.00	5.60	4.20	4.50

Table 1. Type designations

TYPE	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT20R-500AG	20W	DC to 10GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	100

Table 2. Ordering Information

2. Note

2-1. Model..

Model description shall be as CQT20R-500AG

2-2. TC (Temperature Coefficient of Resistance)

TC shall be only +/-200ppm/K and expressed as C

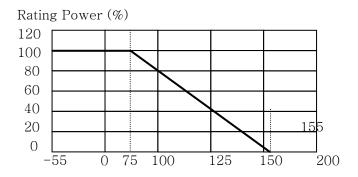
2-3. Resistance Tolerance.

Resistance Tolerance shall be $\pm 1/-1\%$, $\pm 1/-3\%$

2-4. Additional Process Code Terminal conductor, solder plated Ag.

3-1. Rating Power with Heat Sink (Fig.2)

Resistors have power rating based on full load operation at terminals temperature from - 55C to +155C. Operating power shall be derated as figure 2 in operating at excess of +155C of terminal temperature.



Terminal Temperature (C)

Fig.2 Power derating

3-2. General Electrical Specifications. (Table 3.)

Items	Specification	Condition
Rating Power	20W	3-1
Resistance Values	50 ohm	Standard
Frequency	DC to 10GHz	
Temp. Coefficient of Resistance.	+/-200ppm/C	-55C to + 155C
Tolerance of Resistance	+/-3%	Standard
Equivalent Parallel Capacitance	1.0 pF Max.	
Equivalent Parallel Inductance	3.5nH	

Table 3. General specifications

Electrical and mechanical performance will be shown as Table 4.

Items	Specifications	Test Conditions
Operation Temp. Range	-55- +155 C	
Storage Temp. Range	-55 - +155 C	
Withstanding Voltage	1,500 Volt	60 seconds.
Load Life	+/-(1.0 %+0.05 ohm)	25C, 90min.ON, 30min.OFF, 1000hours.
Humidity	+/- (1.0 %+0.05 ohm)	40C, 90-95%RH, DC0.1W, 1000hours.
Temperature Cycle	+/- (0.25 %+ 0.05 ohm)	-55C, 30 min., +155C 30min., 5cycles.
Soldering Heat	+/- (0.25 %+ 0.05 ohm)	350+/-5C, 3seconds,
Solderability	Over 3/4 of surface	230+/-5C, 3seconds.
Insulation Resistance	Over 1000 M ohm	Between terminals and resistor body.
Vibration	+/- (0.25 %+ 0.05 ohm)	

Table 4. Electrical and mechanical performance

5. Quality Assurance

Cqtel shall be assure to the CiTEL customers of the resistors quality. Receiving fault report from the customer, analyzing the cause of fault and reporting of QA to the customer shall be obligation of Cqtel, because brand of the resistor and type CQT20R-500AG is right of CiTEL.

6. Country of Origin

The resistors are produced at main factory of CiTEL Co., Ltd.

End of specifications

Planed by	WY. Choi	Product Specification	Part No.
Drew by	YoWang	Title and Description	
Drew date	Aug04,2019		CQT50R-500AG
Up date	Sep14,2020	RF Power Termination Resistor	

CQT50R-500AG는 초고열전도성, 비유전율의 고순도 소재를 사용한 종단용 박막저항입니다. 마이크로파와 고주파 영역에서 무 유도적이고, 열전도성이 좋아 고주파용 제품에 장시간 사용해도 안정적입니다.

- 용도

이동통신중계기, 고주파증폭기, 고주파계측기, 고주파전원장치, 고압전원장치, 의료용장비, 방송장비

1. Dimensional specifications are detailed per the following draft of Fig.1(Unit: mm)

Power: 50W

Frequency: DC to 10GHz

VSWR (Max): 1.20: 1

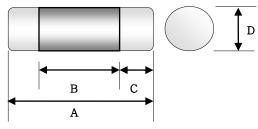


Fig.1

Туре	A	В	С	D
Rod	23.00	10.00	6.50	7.00

Table 1. Type designations

Part No.	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT50R-500AG	50W	DC to 10GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	10

Table 2. Ordering Information

2. Note

2-1. Model..

Model description shall be as CQT50R-500AG

2-2. TC (Temperature Coefficient of Resistance)

TC shall be only +/-200ppm/K and expressed as C

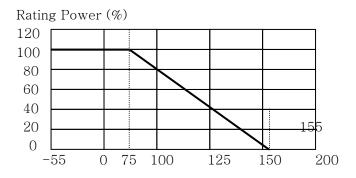
2-3. Resistance Tolerance.

Resistance Tolerance shall be $\pm 1/-1\%$, $\pm 1/-3\%$

2-4. Additional Process Code Terminal conductor, solder plated Ag

3-1. Rating Power with Heat Sink (Fig.2)

Resistors have power rating based on full load operation at terminals temperature from - 55C to + 155C. Operating power shall be derated as figure 2 in operating at excess of + 155C of terminal temperature.



Terminal Temperature (C)

Fig.2 Power Derating

3-2. General Electrical Specifications. (Table 3.)

Items	Specification	Condition
Rating Power	50W	3-1
Resistance Values	50 ohm	Standard
Frequency	DC to 10GHz	
Temp. Coefficient of Resistance.	+/-200ppm/C	-55C to +155C
Tolerance of Resistance	+/-3%	Standard
Equivalent Parallel Capacitance	1.0 pF Max.	
Equivalent Parallel Inductance	3.5nH	

Table 3. General Specifications

Electrical and mechanical performance will be shown as Table 4.

Items	Specifications	Test Conditions
Operation Temp. Range	-55- +155 C	
Storage Temp. Range	-55 - +155 C	
Withstanding Voltage	1,500 Volt	60 seconds.
Load Life	+/-(1.0 %+0.05 ohm)	25C, 90min.ON, 30min.OFF, 1000hours.
Humidity	+/- (1.0 %+ 0.05 ohm)	40C, 90-95%RH, DC0.1W, 1000hours.
Temperature Cycle	+/- (0.25 %+0.05 ohm)	-55C, 30 min., +155C 30min., 5cycles.
Soldering Heat	+/- (0.25 %+0.05 ohm)	350+/-5C, 3seconds,
Solderability	Over 3/4 of surface	230+/-5C, 3seconds.
Insulation Resistance	Over 1000 M ohm	Between terminals and resistor body.
Vibration	+/- (0.25 %+ 0.05 ohm)	

Table 4. Electrical and Mechanical Performance

5. Quality Assurance

Cqtel shall be assure to the CiTEL customers of the resistors quality. Receiving fault report from the customer, analyzing the cause of fault and reporting of QA to the customer shall be obligation of Cqtel, because brand of the resistor and type CQT50R-500AG is right of CiTEL.

6. Country of Origin

The resistors are produced at main factory of CiTEL Co., Ltd.

End of specifications

Planed by	WY. Choi	Product Specification	Part No.
Drew by	YoWang	Title and Description	
Drew date	Aug16,2020		CQT50RA-500AG
Up date	Oct20,2020	RF Power Termination Resistor	

CQT50RA-500AG 는 초고열전도성, 비유전율의 고순도 소재를 사용한 종단용 박막저항입니다. 마이크로파와 고주파 영역에서 무 유도적이고, 열전도성이 좋아 고주파용 제품에 장시간 사용해도 안정적입니다.

- 용도

이동통신중계기, 고주파증폭기, 고주파계측기, 고주파전원장치, 고압전원장치, 의료용장비, 방송장비

1. Dimensional specifications are detailed per the following draft of Fig.1(Unit: mm)

Power (Max): 50W
Frequency: DC to 12GHz
VSWR (Max): 1.20: 1

Fig.1

 Type
 A
 B
 C
 C1
 D
 D1

 Rod
 25.30
 14.50
 2.20
 3.20
 5.20
 6.20

Table 1. Type designations

Part No.	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT50RA-500AG	50W	DC to 12GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	10

Table 2. Ordering Information

2. Note

2-1. Model,.

Model description shall be as CQT50RA-500AG

2-2. TC (Temperature Coefficient of Resistance)

TC shall be only +/-200 ppm/K and expressed as C

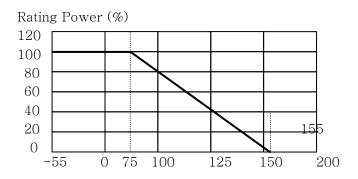
2-3. Resistance Tolerance.

Resistance Tolerance shall be +/-1%, +/-3%

2-4. Additional Process Code Terminal conductor, solder plated Ag

3-1. Rating Power with Heat Sink (Fig.2)

Resistors have power rating based on full load operation at terminals temperature from - 55C to + 155C. Operating power shall be derated as figure 2 in operating at excess of + 155C of terminal temperature.



Terminal Temperature (C)

Fig.2 Power Derating

3-2. General Electrical Specifications. (Table 3.)

Items	Specification	Condition
Rating Power	50W	3-1
Resistance Values	50 ohm	Standard
Frequency	DC to 12GHz	
Temp. Coefficient of Resistance.	+/-200ppm/C	-55C to +155C
Tolerance of Resistance	+ /-3%	Standard
Equivalent Parallel Capacitance	1.0 pF Max.	
Equivalent Parallel Inductance	3.5nH	

Table 3. General Specifications

Electrical and mechanical performance will be shown as Table 4.

Items	Specifications	Test Conditions
Operation Temp. Range	-55- +155 C	
Storage Temp. Range	-55 - +155 C	
Withstanding Voltage	1,500 Volt	60 seconds.
Load Life	+/-(1.0 %+ 0.05 ohm)	25C, 90min.ON, 30min.OFF, 1000hours.
Humidity	+/- (1.0 %+0.05 ohm)	40C, 90-95%RH, DC0.1W, 1000hours.
Temperature Cycle	+/- (0.25 %+ 0.05 ohm)	-55C, 30 min., +155C 30min., 5cycles.
Soldering Heat	+/- (0.25 %+ 0.05 ohm)	350+/-5C, 3seconds,
Solderability	Over 3/4 of surface	230+/-5C, 3seconds.
Insulation Resistance	Over 1000 M ohm	Between terminals and resistor body.
Vibration	+/- (0.25 %+0.05 ohm)	·

Table 4. Electrical and Mechanical Performance

5. Quality Assurance

Cqtel shall be assure to the CiTEL customers of the resistors quality. Receiving fault report from the customer, analyzing the cause of fault and reporting of QA to the customer shall be obligation of Cqtel, because brand of the resistor and type CQT50RA-500AG is right of CiTEL.

6. Country of Origin

The resistors are produced at main factory of CiTEL Co., Ltd.

End of specifications

Planed by	WY. Choi	Product Specification	Part No.
Drew by	YoWang	Title and Description	
Drew date	Aug04,2017		CQT100R-500AG
Up date	Sep14,2020	RF Power Termination Resistor	

CQT100R-500AG 는 초고열전도성, 비유전율의 고순도 소재를 사용한 종단용 박막저항입니다. 마이크로파와 고주파 영역에서 무 유도적이고, 열전도성이 좋아 고주파용 제품에 장시간 사용해도 안정적입니다.

- 용도

이동통신중계기, 고주파증폭기, 고주파계측기, 고주파전원장치, 고압전원장치, 의료용장비, 방송장비

1. Dimensional specifications are detailed per the following draft of Fig.1(Unit: mm)

Power: 100W

Frequency: DC to 10GHz

VSWR (Max): 1.20: 1

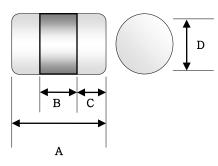


Fig.1

Туре	A	В	С	D
Rod	19.00	9.00	5.00	9.50

Table 1. Type designations

Part No.	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT100R-500AG	100W	DC to 10GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	10

Table 2. Ordering Information

2. Note

2-1. Model..

Model description shall be as CQT100R-500AG

2-2. TC (Temperature Coefficient of Resistance)

TC shall be only +/-200ppm/K and expressed as C

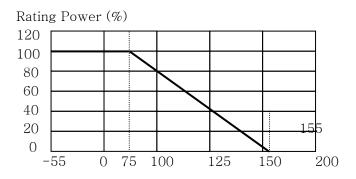
2-3. Resistance Tolerance.

Resistance Tolerance shall be +/-1%, +/-3%

2-4. Additional Process Code Terminal conductor, solder plated Ag

3-1. Rating Power with Heat Sink (Fig.2)

Resistors have power rating based on full load operation at terminals temperature from - 55C to +155C. Operating power shall be derated as figure 2 in operating at excess of +155C of terminal temperature.



Terminal Temperature (C)

Fig.2 Power Derating

3-2. General Electrical Specifications. (Table 3.)

Items	Specification	Condition
Rating Power	100W	3-1
Resistance Values	50 ohm	Standard
Frequency	DC to 10GHz	
Temp. Coefficient of Resistance.	+/-200ppm/C	-55C to + 155C
Tolerance of Resistance	+/-3%	Standard
Equivalent Parallel Capacitance	1.0 pF Max.	
Equivalent Parallel Inductance	3.5nH	

Table 3. General Specifications

Electrical and mechanical performance will be shown as Table 4.

Items	Specifications	Test Conditions
Operation Temp. Range	-55- +155 C	
Storage Temp. Range	-55 - +155 C	
Withstanding Voltage	1,500 Volt	60 seconds.
Load Life	+/-(1.0 %+0.05 ohm)	25C, 90min.ON, 30min.OFF, 1000hours.
Humidity	+/- (1.0 %+0.05 ohm)	40C, 90-95%RH, DC0.1W, 1000hours.
Temperature Cycle	+/- (0.25 %+0.05 ohm)	-55C, 30 min., + 155C 30min., 5cycles.
Soldering Heat	+/- (0.25 %+0.05 ohm)	350+/-5C, 3seconds,
Solderability	Over 3/4 of surface	230+/-5C, 3seconds.
Insulation Resistance Over 1000 M ohm		Between terminals and resistor body.
Vibration	+/- (0.25 %+0.05 ohm)	

Table 4. Electrical and Mechanical Performance

5. Quality Assurance

Cqtel shall be assure to the CiTEL customers of the resistors quality. Receiving fault report from the customer, analyzing the cause of fault and reporting of QA to the customer shall be obligation of Cqtel, because brand of the resistor and type CQT100R-500AG is right of CiTEL.

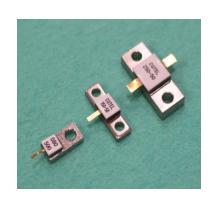
6. Country of Origin

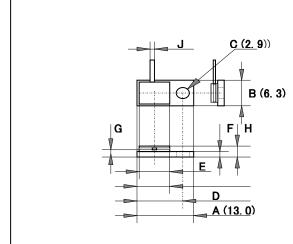
The resistors are produced at main factory of CiTEL Co., Ltd.

End of specifications

Flange Termination Resistors CQT

Power: 50W to 250W Frequency: DC to 3GHz





G F H D A (20.3)

С

Type A

Type B

Dimensions (Unit: mm)

Part	Туре	A	В	С	D	Е	F	G	Н	J
CQT50F	А	13.00	6.30	2.90	9.90	6.10	1.50	2.50	3.40	0.80
CQT100F	В	20.30	5.70	3.20	14.60	8.90	1.50	2.50	3.40	1.00
CQT150F	В	20.30	5.70	3.20	14.60	8.90	1.50	2.50	3.40	1.00
CQT150F	В	22.30	6.30	3.20	14.20	8.50	1.50	2.50	3.20	1.00
CQT250F	В	25.00	9.50	3.20	18.40	9.60	3.00	4.10	4.50	3.00

Ordering Information

Part No.	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT50F-500NI	50W	DC to 3GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	50
CQT100F-500NI	100W	DC to 3GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	50
CQT150F-500NI	150W	DC to 2.5GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	50
CQR150F-101NK	150W	DC to 2.5GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	50
CQR250F-101NI	250W	DC to 2.5GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	50

Planed by	WY. Choi	Product Specification	Part No.
Drew by	YoWang	Title and Description	
Drew date	Oct20,2001		CQT50F-500NI
Up date	Aug04,2019	RF Power Termination Resistor	

CQT50F-500NI는 초고열전도성, 비유전율의 고순도 소재를 사용한 종단용 저항입니다. 마이크로파와 고주파 영역에서 무 유도적이고, 열전도성이 좋아 고주파용 제품에 장시간 사용해도 안정적입니다.

- 용도

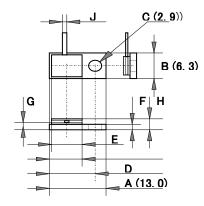
이동통신중계기, 고주파증폭기, 고주파계측기, 고주파전원장치, 고압전원장치, 의료용장비, 방송장비

1. Dimensional specifications are detailed per the following draft of Table 1. (Unit: mm)

Power: 50W

Frequency: DC to 3GHz

VSWR (Max): 1.25:1



Туре	A	В	С	D	E	F	G	Н	J
Flange	13.00	6.30	2.90	9.90	6.10	1.50	2.50	3.40	0.80

Table 1. Type designations

Part No.	Lead Position	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT50FC-500NI	Center	50W	DC to 3GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	50
CQT50FR-500NI	Right	50W	DC to 3GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	50
CQT50FL-500NI	Left	50W	DC to 3GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	50

Table 2. Ordering Information

2. Note

2-1. Model..

Model description shall be as CQT50F-500NI

2-2. TC (Temperature Coefficient of Resistance)

TC shall be only +/-200ppm/K and expressed as C

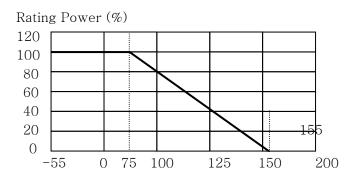
2-3. Resistance Tolerance.

Resistance Tolerance shall be +/-1%, +/-3%

2-4. Additional Process Code Terminal conductor, solder plated Sn / Ag

3-1. Rating Power with Heat Sink (Fig.1)

Resistors have power rating based on full load operation at terminals temperature from - 55C to +155C. Operating power shall be derated as figure 2 in operating at excess of +155C of terminal temperature.



Terminal Temperature (C)

Fig.1 Power derating

3-2. General Electrical Specifications. (Table 3.)

Items	Specification	Condition
Rating Power	50W	3-1
Resistance Values	50 ohm	Standard
Frequency	DC to 3GHz	
Temp. Coefficient of Resistance.	+/-200ppm/C	-55C to +155C
Tolerance of Resistance	+/-3%	Standard
Equivalent Parallel Capacitance	1.5 pF Max.	
Equivalent Parallel Inductance	3.5nH	

Table 3. General specifications

Electrical and mechanical performance will be shown as Table 4.

Items	Specifications	Test Conditions
Operation Temp. Range	-55- +155 C	
Storage Temp. Range	-55 - +155 C	
Withstanding Voltage	1,500 Volt	60 seconds.
Load Life	+/-(1.0 %+0.05 ohm)	25C, 90min.ON, 30min.OFF, 1000hours.
Humidity	+/- (1.0 %+0.05 ohm)	40C, 90-95%RH, DC0.1W, 1000hours.
Temperature Cycle	+/- (0.25 %+ 0.05 ohm)	-55C, 30 min., + 155C 30min., 5cycles.
Soldering Heat	+/- (0.25 %+ 0.05 ohm)	350+/-5C, 3seconds,
Solderability	Over 3/4 of surface	230+/-5C, 3seconds.
Insulation Resistance Over 1000 M ohm		Between terminals and resistor body.
Vibration	+/- (0.25 %+0.05 ohm)	

Table 4. Electrical and mechanical performance

5. Quality Assurance

Cqtel shall be assure to the CiTEL customers of the resistors quality. Receiving fault report from the customer, analyzing the cause of fault and reporting of QA to the customer shall be obligation of Cqtel, because brand of the resistor and type CQT50F-500NI is right of CiTEL.

6. Country of Origin

The resistors are produced at main factory of CiTEL Co., Ltd.

End of specifications

Planed by	WY. Choi	Product Specification	Part No.
Drew by	YoWang	Title and Description	
Drew date	Oct20,2001		CQT100F-500NI
Up date	Aug04,2019	RF Power Termination Resistor	

CQT100F-500NI는 초고열전도성, 비유전율의 고순도 소재를 사용한 종단용 저항입니다. 마이크로파와 고주파 영역에서 무 유도적이고, 열전도성이 좋아 고주파용 제품에 장시간 사용해도 안정적입니다.

- 용도

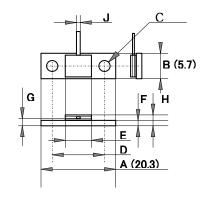
이동통신중계기, 고주파증폭기, 고주파계측기, 고주파전원장치, 고압전원장치, 의료용장비, 방송장비

1. Dimensional specifications are detailed per the following draft of Table 1. (Unit: mm)

Power: 100W

Frequency: DC to 3GHz

VSWR (Max): 1.25:1



Туре	Α	В	С	D	E	F	G	Н	J
Flange	20.30	5.70	3.20	14.60	8.90	1.50	2.50	3.40	1.00

Table 1. Type designations

Part No.	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT100F-500NI	100W	DC to 3GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	50

Table 2. Ordering Information

2. Note

2-1. Model..

Model description shall be as CQT100F-500NI

2-2. TC (Temperature Coefficient of Resistance)

TC shall be only +/-200ppm/K and expressed as C

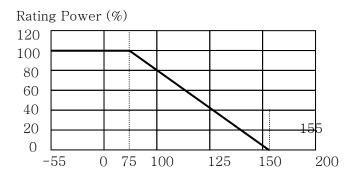
2-3. Resistance Tolerance.

Resistance Tolerance shall be $\pm /-1\%$, $\pm /-3\%$

2-4. Additional Process Code Terminal conductor, solder plated Sn / Ag.

3-1. Rating Power with Heat Sink (Fig.2)

Resistors have power rating based on full load operation at terminals temperature from - 55C to +155C. Operating power shall be derated as figure 2 in operating at excess of +155C of terminal temperature.



Terminal Temperature (C)

Fig.2 Power derating

3-2. General Electrical Specifications. (Table 3.)

Items	Specification	Condition
Rating Power	100W	3-1
Resistance Values	50 ohm	Standard
Frequency	DC to 3GHz	
Temp. Coefficient of Resistance.	+/-200ppm/C	-55C to +155C
Tolerance of Resistance	+/-3%	Standard
Equivalent Parallel Capacitance	1.5 pF max.	
Equivalent Parallel Inductance	3.5nH	

Table 3. General specifications

Electrical and mechanical performance will be shown as Table 4.

Items	Specifications	Test Conditions
Operation Temp. Range	-55- +155 C	
Storage Temp. Range	-55 - +155 C	
Withstanding Voltage	1,500 Volt	60 seconds.
Load Life	+/-(1.0 %+0.05 ohm)	25C, 90min.ON, 30min.OFF, 1000hours.
Humidity	+/- (1.0 %+0.05 ohm)	40C, 90-95%RH, DC0.1W, 1000hours.
Temperature Cycle	+/- (0.25 %+ 0.05 ohm)	-55C, 30 min., + 155C 30min., 5cycles.
Soldering Heat	+/- (0.25 %+ 0.05 ohm)	350+/-5C, 3seconds,
Solderability	Over 3/4 of surface	230+/-5C, 3seconds.
Insulation Resistance	Over 1000 M ohm	Between terminals and resistor body.
Vibration	+/- (0.25 %+0.05 ohm)	

Table 4. Electrical and mechanical performance

5. Quality Assurance

Cqtel shall be assure to the CiTEL customers of the resistors quality. Receiving fault report from the customer, analyzing the cause of fault and reporting of QA to the customer shall be obligation of Cqtel, because brand of the resistor and type CQT100F-500NI is right of CiTEL.

6. Country of Origin

The resistors are produced at main factory of CiTEL Co., Ltd.

End of specifications

Planed by	WY. Choi	Product Specification	Part No.
Drew by	YoWang	Title and Description	CQT150F-500NI
Drew date	Oct20,2001		CQT150F-500NI CQT150F-500NK
Up date	Aug04,2015	RF Power Termination Resistor	CQ11301 300111

CQT150F-500 은 초고열전도성, 비유전율의 고순도 소재를 사용한 종단용 저항입니다. 마이크로파와 고주파 영역에서 무 유도적이고, 열전도성이 좋아 고주파용 제품에 장시간 사용해도 안정적입니다.

- 용도

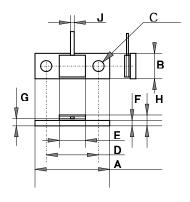
이동통신중계기, 고주파증폭기, 고주파계측기, 고주파전원장치, 고압전원장치, 의료용장비, 방송장비

1. Dimensional specifications are detailed per the following draft of Table 1. (Unit: mm)

Power: 150W

Frequency: DC to 2.5GHz

VSWR (Max): 1.25:1



Туре	A	В	С	D	E	F	G	H	J
Flange	20.30	5.70	3.20	14.60	8.90	1.50	2.50	3.40	1.00
Flange-L	22.30	6.30	3.20	14.20	8.50	1.50	2.50	3.20	1.00

Table 1. Type designations

Part No.	Туре	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT150F-500NI	Flange	150W	DC to 2.5GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	50
CQT150F-500NK	Flange-L	150W	DC to 2GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	50

Table 2. Ordering Information

2. Note

2-1. Model..

Model description shall be as CQT150F-500

2-2. TC (Temperature Coefficient of Resistance)

TC shall be only +/-200ppm/K and expressed as C

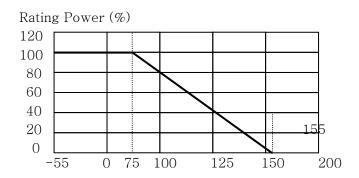
2-3. Resistance Tolerance.

Resistance Tolerance shall be $\pm /-1\%$, $\pm /-3\%$

2-4. Additional Process Code Terminal conductor, solder plated Sn / Ag.

3-1. Rating Power with Heat Sink (Fig.2)

Resistors have power rating based on full load operation at terminals temperature from - 55C to +155C. Operating power shall be derated as figure 2 in operating at excess of +155C of terminal temperature.



Terminal Temperature (C)

Fig.2 Power derating

3-2. General Electrical Specifications. (Table 3.)

Items	Specification	Condition
Rating Power	150W	3-1
Resistance Values	50 ohm	Standard
Frequency	DC to 2.5GHz	
Temp. Coefficient of Resistance.	+/-200ppm/C	-55C to +155C
Tolerance of Resistance	+ /-1%	Standard
Equivalent Parallel Capacitance	1.5 pF max.	
Equivalent Parallel Inductance	3.5nH	

Table 3. General specifications

Electrical and mechanical performance will be shown as Table 4.

Items	Specifications	Test Conditions		
Operation Temp. Range	-55- +155 C			
Storage Temp. Range	-55 - +155 C			
Withstanding Voltage	1,500 Volt	60 seconds.		
Load Life	+/-(1.0 %+0.05 ohm)	25C, 90min.ON, 30min.OFF, 1000hours.		
Humidity	+/- (1.0 %+0.05 ohm)	40C, 90-95%RH, DC0.1W, 1000hours.		
Temperature Cycle	+/- (0.25 %+ 0.05 ohm)	-55C, 30 min., + 155C 30min., 5cycles.		
Soldering Heat	+/- (0.25 %+ 0.05 ohm)	350+/-5C, 3seconds,		
Solderability	Over 3/4 of surface	230+/-5C, 3seconds.		
Insulation Resistance	Over 1000 M ohm	Between terminals and resistor body.		
Vibration	+/- (0.25 %+0.05 ohm)			

Table 4. Electrical and mechanical performance

5. Quality Assurance

Cqtel shall be assure to the CiTEL customers of the resistors quality. Receiving fault report from the customer, analyzing the cause of fault and reporting of QA to the customer shall be obligation of Cqtel, because brand of the resistor and type CQT150F-500 is right of CiTEL

6. Country of Origin

The resistors are produced at main factory of CiTEL Co., Ltd.

End of specifications

Planed by	WY. Choi	Product Specification	Part No.
Drew by	YoWang	Title and Description	
Drew date	Oct20,2001		CQT250F-500NI
Up date	Aug04,2015	RF Power Termination Resistor	

CQT250F-500NI는 초고열전도성, 비유전율의 고순도 소재를 사용한 종단용 저항입니다. 마이크로파와 고주파 영역에서 무 유도적이고, 열전도성이 좋아 고주파용 제품에 장시간 사용해도 안정적입니다.

- 용도

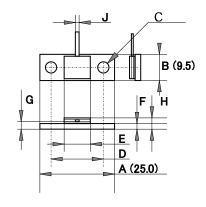
이동통신중계기, 고주파증폭기, 고주파계측기, 고주파전원장치, 고압전원장치, 의료용장비, 방송장비

1. Dimensional specifications are detailed per the following draft of Table 1. (Unit: mm)

Power: 250W

Frequency: DC to 2.5GHz

VSWR (Max): 1.25: 1



Туре	A	В	С	D	Е	F	G	Н	J
Flange	25.00	9.50	3.20	18.40	9.60	3.00	4.10	4.50	3.00

Table 1. Type designations

Part No.	RF Power	Frequency	TCR	Resistance	Tolerance	Package
CQT250F-500NI	250W	DC to 2.5GHz	C(50ppm/C)	50 ohm	+/-1%. +/-3%	50

Table 2. Ordering Information

2. Note

2-1. Model..

Model description shall be as CQT250F-500NI

2-2. TC (Temperature Coefficient of Resistance)

TC shall be only +/-200ppm/K and expressed as C

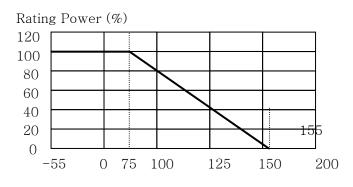
2-3. Resistance Tolerance.

Resistance Tolerance shall be +/-1%, +/-3%

2-4. Additional Process Code Terminal conductor, solder plated Sn / Ag.

3-1. Rating Power with Heat Sink (Fig.2)

Resistors have power rating based on full load operation at terminals temperature from - 55C to +155C. Operating power shall be derated as figure 2 in operating at excess of +155C of terminal temperature.



Terminal Temperature (C)

Fig.2 Power derating

3-2. General Electrical Specifications. (Table 3.)

Items	Specification	Condition
Rating Power	250W	3-1
Resistance Values	50 ohm	Standard
Frequency	DC to 2.5GHz	
Temp. Coefficient of Resistance.	+/-200ppm/C	-55C to +155C
Tolerance of Resistance	+/-3%	Standard
Equivalent Parallel Capacitance	1.5 pF max.	
Equivalent Parallel Inductance	3.5nH	

Table 3. General specifications

Electrical and mechanical performance will be shown as Table 4.

Items	Specifications	Test Conditions	
Operation Temp. Range	-55- +155 C		
Storage Temp. Range	-55 - +155 C		
Withstanding Voltage	1,500 Volt	60 seconds.	
Load Life	+/-(1.0 %+0.05 ohm)	25C, 90min.ON, 30min.OFF, 1000hours.	
Humidity	+/- (1.0 %+0.05 ohm)	40C, 90-95%RH, DC0.1W, 1000hours.	
Temperature Cycle	+/- (0.25 %+0.05 ohm)	-55C, 30 min., + 155C 30min., 5cycles.	
Soldering Heat	+/- (0.25 %+0.05 ohm)	350+/-5C, 3seconds,	
Solderability	Over 3/4 of surface	230+/-5C, 3seconds.	
Insulation Resistance	Over 1000 M ohm	Between terminals and resistor body.	
Vibration	+/- (0.25 %+0.05 ohm)		

Table 4. Electrical and mechanical performance

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6. Country of Origin

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End of specifications