

Circulator
Approval Specification**Approval Specification****Complies with Directive 2002/95/EC (RoHS)**

TO:

Part No.: NDC9004

Customer's Part No.:

Application

Please return this copy as a certification of your approval

Checked & Approval by:

Date:

**CETC DEQING HUAYING ELECTRONICS CO., LTD.**

Add: Zhiyuan Road Wukang Deqing County

Zhejiang Province P.R.C

Tel: 0086-572-8281621

Fax: 0086-572-8281498

E-mail: sales@dghuaying.comWebsite: <http://www.dghuaying.com>

Prepared by:

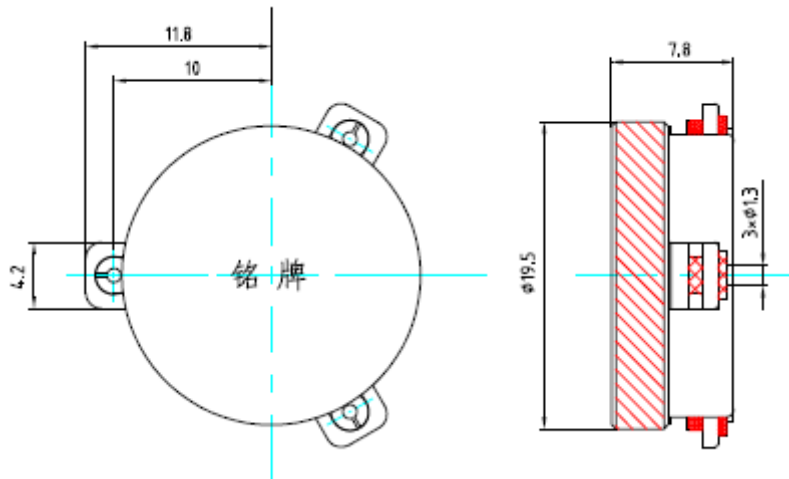
Checked by:

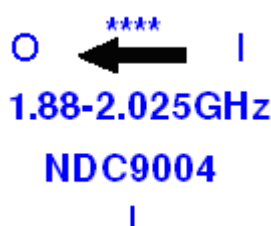

Approved by

| Old Version | Revision Date | Revision Record | Revisor |
|-------------|---------------|-----------------|---------|
| | | | |

**Circulator
Approval Specification**
Features

- Microwave Circulators and Isolators for base station
- Metal Package for **Surface Mounted Technology (SMT)**
- Lead-free Production and **RoHS** Compliance

Package Dimensions


| Marking  | Top View, Laser Marking | | | | | | | | | | | | | |
|---|-------------------------|---|-----|-----|-----|------|---|-------------------|------------|--|--|--|--|--|
| | "ND": | Manufacturer's mark | | | | | | "C": | Circulator | | | | | |
| | "9004": | Part number | | | | | | ".": | Terminal 1 | | | | | |
| | "I" | IN | "O" | OUT | "L" | LOAD |  | Conduct Direction | | | | | | |
| | | 1.880-2.025GHz : operating Frequency Range | | | | | | | | | | | | |
| | "*": | Lot number (the first two numbers of years and the last two numbers of weeks) | | | | | | | | | | | | |

| Code | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|------|---|---|---|---|---|---|---|---|---|----|----|----|
| 2013 | A | B | C | D | E | F | G | H | J | K | L | M |
| 2014 | N | P | Q | R | S | T | U | V | W | X | Y | Z |
| 2015 | a | b | c | d | e | f | g | h | i | j | k | m |
| 2016 | n | p | q | r | s | t | u | v | w | x | y | z |

**Circulator
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Maximum Ratings

| Rating | | Value | Unit |
|-----------------------------|-----------|-----------|------|
| Source Power | P | 30 | dBm |
| DC Voltage | V_{DC} | 10 | V |
| Operating Temperature Range | T_A | -40 ~ +85 | °C |
| Storage Temperature Range | T_{stg} | -40 ~ +85 | °C |


Electrical Characteristics

 Reference temperature: $T_A = 25\text{ °C}$

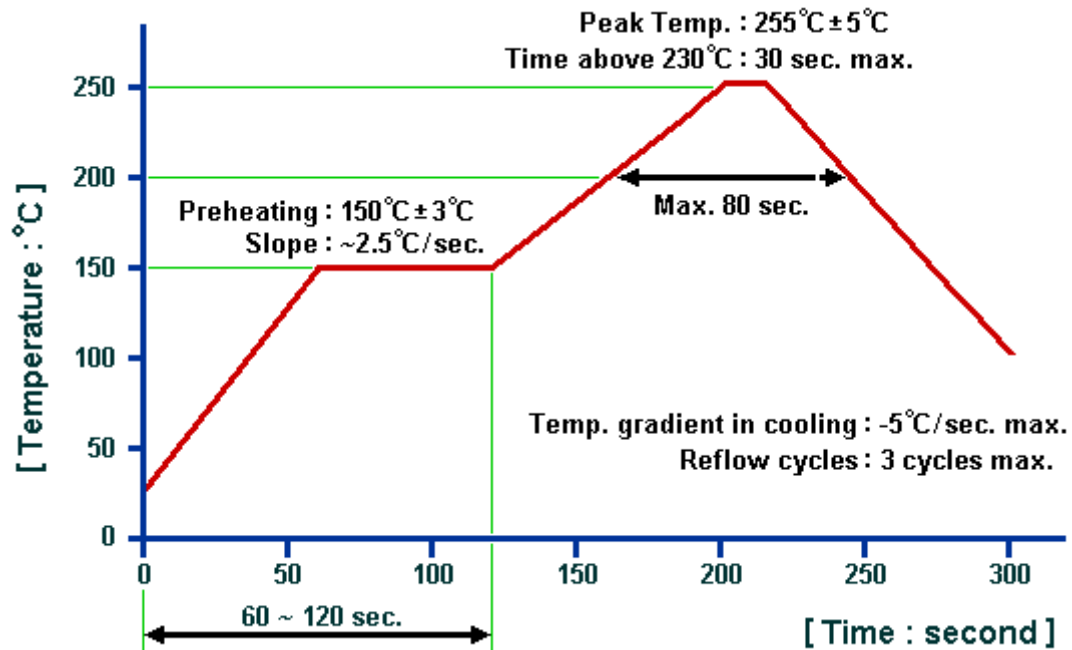
 Terminating source impedance: $Z_S = 50\ \Omega$

 Terminating load impedance: $Z_L = 50\ \Omega$

| Characteristic | | Min. | Typ. | Max. | Unit |
|-----------------------|-------|-------|------|-------|------|
| Center frequency | f_c | 1.880 | | 2.025 | GHz |
| Insertion attenuation | IL | — | 0.18 | 0.24 | dB |
| Isolation | | 25 | 27 | — | dB |
| Input return Loss | | 23.0 | 26.0 | | |
| Output return | | 23.0 | 26.0 | | |

 **RoHS Compliant**
 **Electrostatic Sensitive Device**
Maximum Ratings

| Rating | | Value | Unit |
|-----------------------------|-----------|-----------|------|
| Source Power | P | 60 | W |
| DC Voltage | V_{DC} | 100 | V |
| Operating Temperature Range | T_A | -40~ +85 | °C |
| Storage Temperature Range | T_{stg} | -40 ~ +85 | °C |

**Circulator
Approval Specification****Recommended Soldering Profile**

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Our liability is only assumed for the circulator and isolator component(s) per se, not for applications, processes and circuits implemented within components or assemblies.

For questions on technology, prices and delivery, please contact our sales offices or e-mail sales@dghuaying.com.