

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

TO:

Part No.: NDI9024

Customer's Part No.:

Application

Please return this copy as a certification of your approval

Checked &amp; 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.com](mailto:sales@dghuaying.com)Website: <http://www.dghuaying.com>

Prepared by:

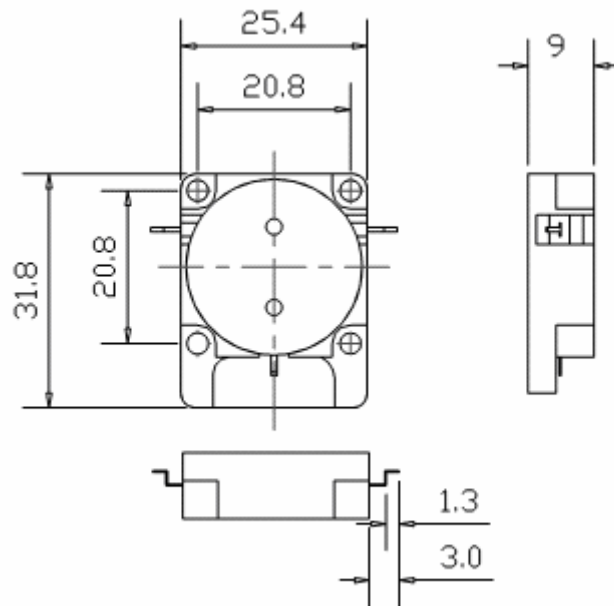
Checked by:



Approved by

Old Version	Revision Date	Revision Record	Revisor

**Circulator  
 Approval Specification**
**Features**

- Microwave Circulators and Isolators for base station
- Metal Package for **drop in**
- Lead-free Production and **RoHS** Compliance

**Package Dimensions**


<div style="text-align: center;"> <b>Marking</b>   </div>	Top View, Laser Marking				
	"ND":	Manufacturer's mark	"I":	Isolator	
	"9024":	Part number			
	"I"	IN	"O"	OUT	 Conduct Direction
		1.805-1.880GHz : operating Frequency Range			
	"*":	Lot number (the first two numbers of years and the last two numbers of weeks)			

**Maximum Ratings**

Rating		Value	Unit
Average Power	$P_{AVG}$	200	W
Peak Power	$P_{PX}$	1200	W
Reverse Power	$P$	150	W
Operating Temperature Range	$T_A$	-40 ~ +90	°C
Storage Temperature Range	$T_{stg}$	-55 ~ +125	°C

**Circulator  
 Approval Specification**
**Electrical Characteristics**

Reference temperature:  $T_A = 25\text{ }^\circ\text{C}$   
 Terminating source impedance:  $Z_S = 50\ \Omega$   
 Terminating load impedance:  $Z_L = 50\ \Omega$

Characteristic	Min.	Typ.	Max.	Unit
Center frequency $f_c$	2110		2170	MHz
Insertion attenuation $IL$	—	0.20	0.25	dB
Isolation 2110~2170MHz	28	30	—	dB
Isolation 2150~2230MHz	18	27	—	dB
IMD(2X65W, 1MHz space)	75	80		dBc
Input Return Loss	23	26		dB
Output Return Loss	23	26		dB
Group Delay			2.0	ns
Group Delay variation			0.5	ns

 **RoHS Compliant**
 **Electrostatic Sensitive Device**

© HUAYING 2014. All Rights Reserved.

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@dquaying.com](mailto:sales@dquaying.com).