

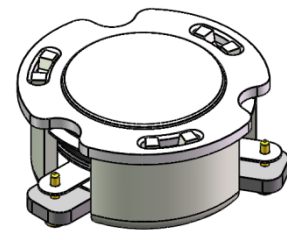


## DP3007C

### ENG PART:DP-15.5CM-1800T2175-CW

1800MHz to 2175MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	SAME AS REV.1	ZZ.Zhu	2024/02/06	Nick

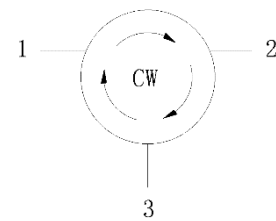


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 1800~1885MHz to 2105~2175MHz
- Operating temperature range: -40°C to +125°C
- Storage temperature range: -50°C to +125°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram



### Electrical Specifications:

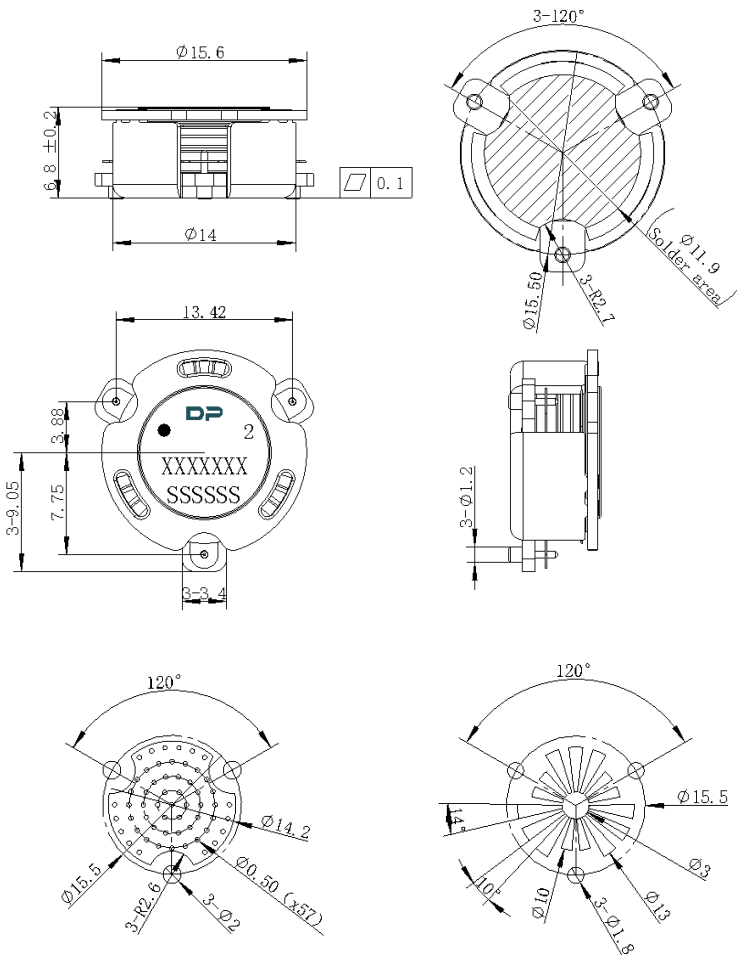
ITEM	SPECIFICATION	
Operating Frequency	1800~1885&2105~2175	MHz
Direction	CW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.35	dB
Isolation (Min.)	22	dB
Return Loss (Min.)	22	dB
3rd IMD (Max.)	-69@2x10W , 1MHz spacing	dBc
5th IMD (Max.)	-79@2x10W , 1MHz spacing	dBc
Harmonics	60@ 2 x f (20W CW ) 60@ 3 x f (20W CW )	dBc
Out of band attenuation	10@2x f 5@3x f 5@nx f	dB
Group delay	0.4~2.0	ns
Deviation from nominal delay over temperature range	$\pm 0.05$ (Measured with fixed frequency)	ns
Power FWD/REV/PEAK	20/20/160	W
Input Impedance (Real)	/	$\Omega$
Max voltage rating	/	V
Input Impedance (real)	/	
Input Impedance (Imaginary)	/	$\Omega$
Output Impedance	50	$\Omega$
Resonance out of	/	MHz
Termination/Attenuator	/-	W/dB

Notes:

1. Exposure to maximum rating conditions for extended periods may reduce device reliability. There is no damage to device with only one parameter set at the limit and all other parameters set at or below their nominal value. Exceeding any of the limits listed here may result in permanent damage to the device.
2. Performance is guaranteed under the conditions listed in this table and over the operating temperature range.



### Mechanical Specifications:



Copper Pattern

Soldermask Pattern

Unit: Millimeters

PCB Material: ROGERS R04350B 0.508mm thickness trace width 1.07mm wide

#### Notes:

1. The housing and pins are silver-plated.
2. Tolerance  $\pm 0.2$ mm unless otherwise specified.
3. Co-planarity Specification: 0.1mm maximum.
4. Part Number, Lot Code, and Port Designation are printed on the top side of device
5. The **XXXXXXX** on the label represents the part number
6. The **SSSSSS** on the label represents the serial number
7. The black dot on the label represents the input port



Packaging Style:

ITEM	W	A0	B0	K0	D	E	F	F2	P	P0	P2	T
DM	44	Φ14.5	Φ17.2	7.3	Φ1.5	1.75	20.2	40.5	28	4	2	0.5
TOL	±0.3	±0.2	±0.2	±0.2	+0.1	±0.1	±0.15	±0.1	±0.1	±0.1	±0.1	±0.05

