

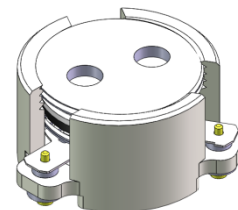


DP2942C

ENG PART:DP-15.5CM-4700T5000-CCW

4700MHz to 5000MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	ZZ.Zhu	2023/12/5	Nick
B	Updated the Impedance	ZC.Wu	2024/2/27	Nick

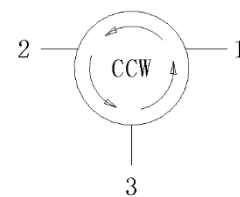


Applications:

- Wireless Infrastructure
- Power Amplifier

Features:

- Operating frequency range: 4700MHz to 5000MHz
- 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:

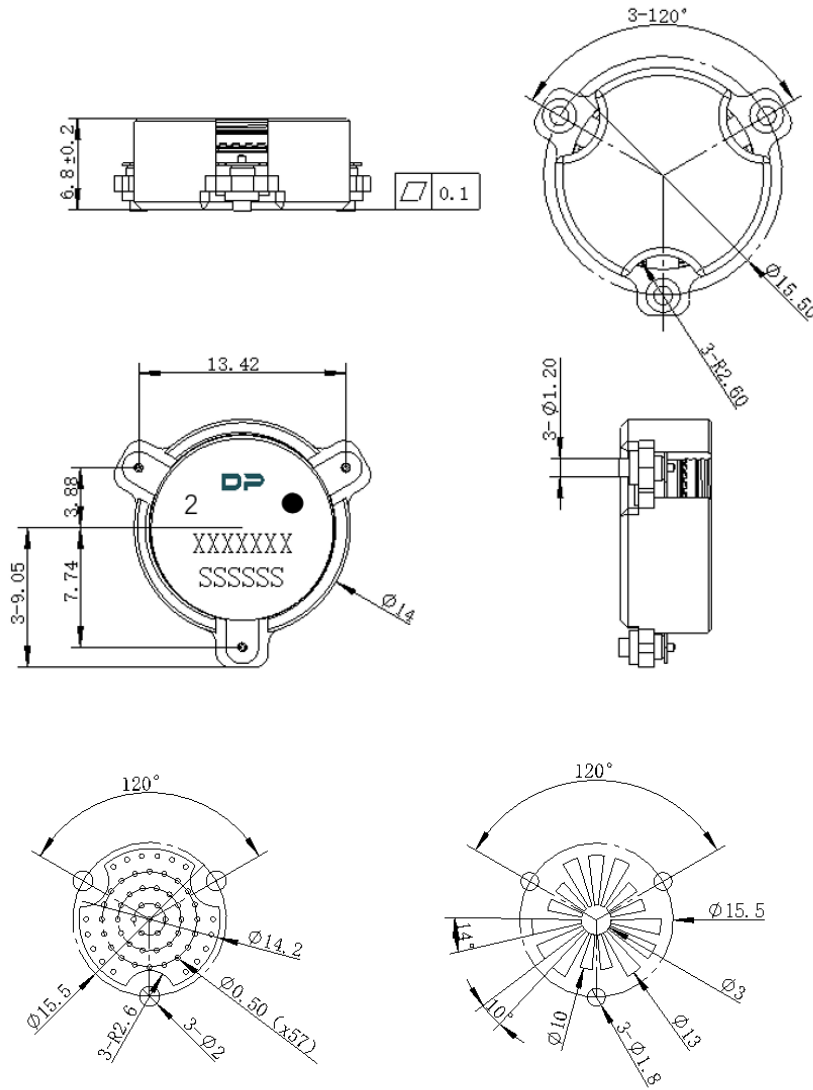
ITEM	SPECIFICATION	
Frequency	4700~5000	MHz
Direction	CCW	
Impedance	Typ: 50	Ω
Insertion Loss (Max.)	0.30	dB
Isolation (Min.)	22	dB
Return Loss (Min.)	23	dB
3rd IMD (Max.)	-65@2x50W , 5MHz spacing	dBc
5th IMD (Max.)	-	dBc
Group delay	-	ns
Power FWD/REV/PEAK	100/100/1000	W
Input Impedance (real)	44~56 (Typ.50)	Ω
Input Impedance (Imaginary)	-7j~+7j (Typ.+0j)	Ω
Output Impedance	50	Ω
Resonance out of	4200~5600	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 ± 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 **XXXXXX** 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

