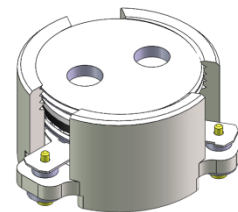




## DP0245C

### 3700MHz to 3980MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A		ZC.Wu	2020/5/22	Nick
B	Replace the number 1 on the input port of the label with a black dot and Updated packaging information	ZC.Wu	2020/11/05	Nick
C	Update the Electrical Spec.	ZC.Wu	2021/06/21	Nick

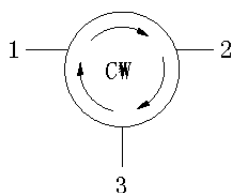


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 3700MHz to 3980MHz
- Operating temperature range: -40°C to +105°C
- Storage temperature range: -40°C to +125°C
- Small surface-mount package delivered on T&R
- BeO free & RoHS compliant



Block Diagram



### Electrical Specifications:

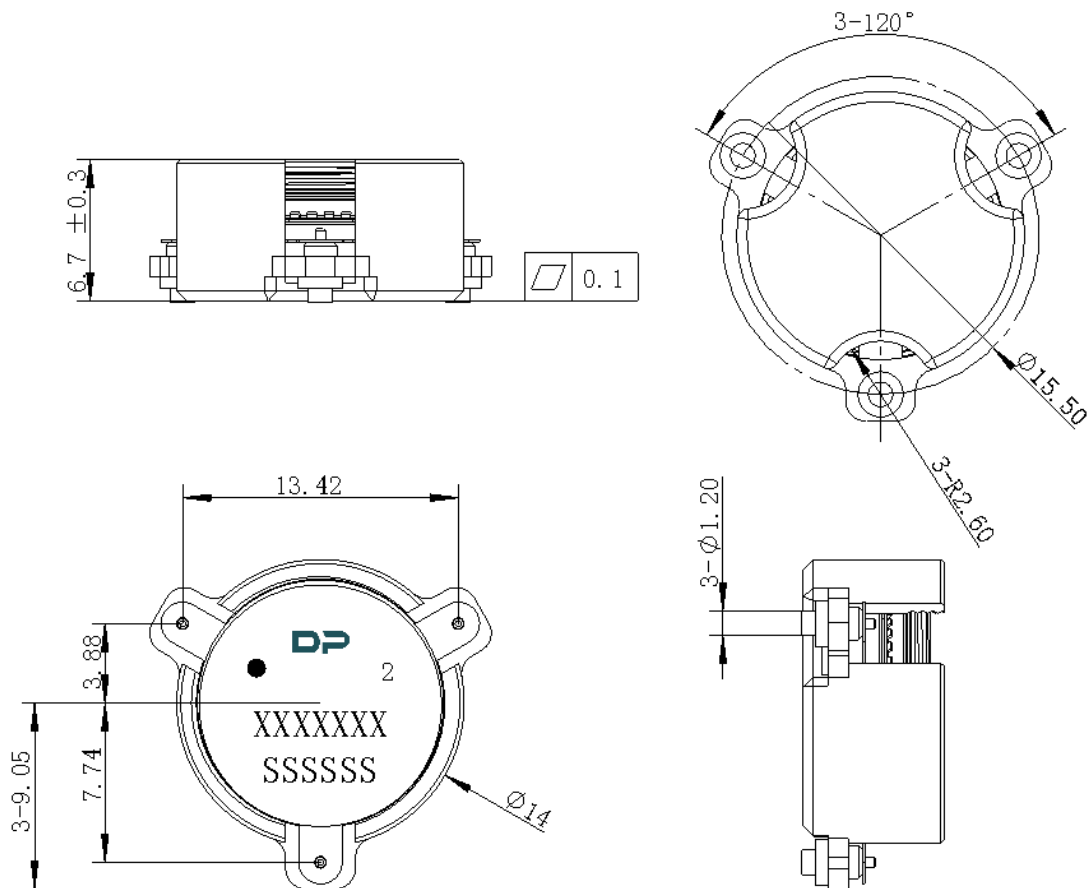
ITEM	SPECIFICATION	
Frequency	3700~3980	MHz
Direction	CW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.25	dB
Isolation (Min.)	23	dB
Return Loss (Min.)	23 1@(Frequency band $\pm$ 600MHz)	dB
3rd IMD (Max.)	-69@2x30W CW tones, 5MHz spacing	dBc
Group delay	0.4~2	ns
Harmonic	-60(2xTX@ 63W CW) -60(3xTX@ 63W CW)	dBc
Power FWD/REV/PEAK	100/100/1000	W
Termination/Attenuator	/	W/dB
Reciprocity	-0.05~+0.05 @Delta(S21 / S32) within any 10 °C temperature range	dB
Reciprocity	-1~+1 @Delta(S21 / S32) within any 10 °C temperature range	Deg

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.
3. Performance will not degrade by > 10% (Insertion loss > 20%) with an operating temperature of up to 130 °C.



### Mechanical Specifications:



Unit: Millimeters

#### Notes:

1. The housing and pins are silver-plated.
2. Tolerance  $\pm 0.2$  mm unless otherwise specified.
3. Co-planarity Specification: 0.1 mm maximum.
4. Part Number, Lot Code, and Port Designation are printed on the top side of device.
5. Part Number format shall be XXXXXXXX
6. Serial Number format shall be SSSSSS



Packaging Style:

ITEM	W	A0	B0	K0	D	E	F	F2	P	P0	P2	T
Dim	32	Φ14.3	18.5	7.2	Φ1.5	1.75	14.2	28.5	24	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

