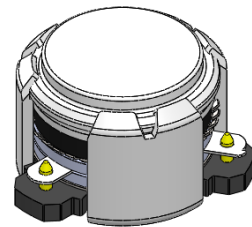




## DP0013C

### 3300MHz to 3800MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating	ZC.Wu	2019/09/13	Nick
B	Updated the Insertion Loss spec.	ZC.Wu	2019/12/30	Nick
C	1.Remove the DP logo from the top cover and replace the number 1 on the input port with a black dot; 2. Optimize the housing and cover to strengthen the reliability	ZC.Wu	2021/04/21	Nick
D	IMD changed from -60dBc to -65dBc	ZC.Wu	2023/2/28	Nick

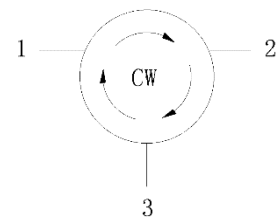


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 3300MHz to 3800MHz
- Operating temperature range: -40°C to +105°C
- Storage temperature range: -65°C to +155°C
- Small surface-mount package delivered on T&R
- BeO free & RoHS compliant



Block Diagram



**Electrical Specifications:**

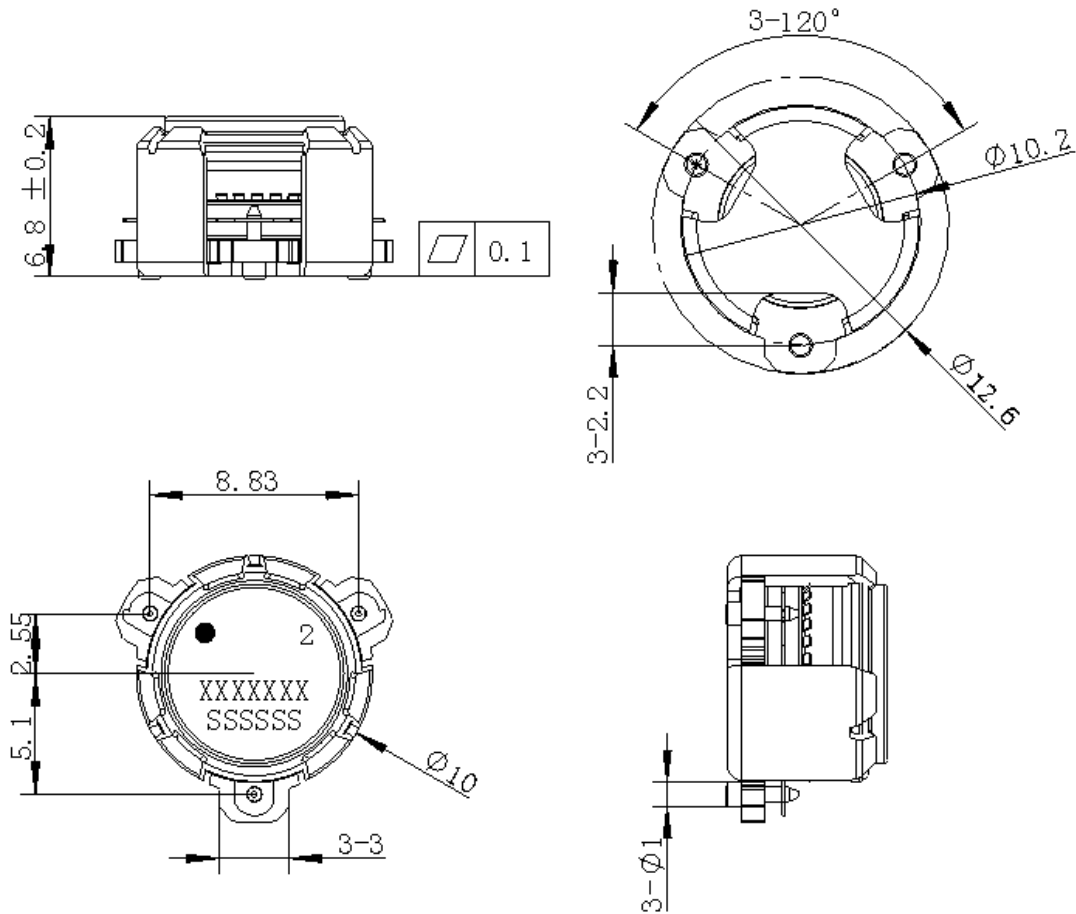
ITEM	SPECIFICATION	
Frequency	3300~3800	MHz
Direction	CW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.35@25°C±10°C 0.4@-40~+105°C	dB
Isolation (Min.)	23@25°C±10°C 20@-40~+105°C	dB
Return Loss (Min.)	23@25°C±10°C 20@-40~+105°C	dB
3rd IMD (Max.)	-65@2x5W CW tones, 1MHz spacing	dBc
Group delay	2	ns
2nd harmonic	10	dBc
3rd harmonic	5	dBc
Power FWD/REV/PEAK	50/50/200	W
Termination/Attenuator	/	W/dB
Out Band Resonance	Resonance point away 3200MHz-3900MHz	

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:



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. The XXXXXXX on the label represents the part number
6. The SSSSSS on the label represents the serial number
7. The black dots represent the input port.



Packaging Style:

ITEM	W	A0	B0	C0	K0	D	E	F	F2	P	P0	P2	T
DIM	32	Φ10.4	12.5	4	7.0	Φ1.5	1.75	14.2	28.5	24	4	2	0.5
TOLE	±0.3	±0.2	±0.2	±0.2	±0.2	+0.1	±0.1	±0.15	±0.1	±0.1	±0.1	±0.1	±0.05

