

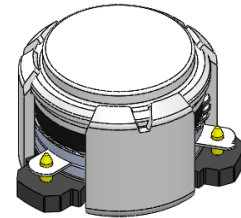


## DP0230C

### ENG PART:DP-10.2CM-3600T3800-CCW

3600MHz to 3800MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	ZC.Wu	2020/05/08	Nick
B	Replace the number 1 on the input port of the label with a black dot	ZC.Wu	2020/10/10	Nick
C	The total height is changed from 7 Max. to 6.8±0.2 and delete the DP logo from the top cover	ZC.Wu	2022/08/24	Nick

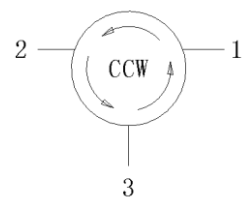


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 3600MHz 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
- BeOfree&RoHS compliant



Block Diagram



**Electrical Specifications:**

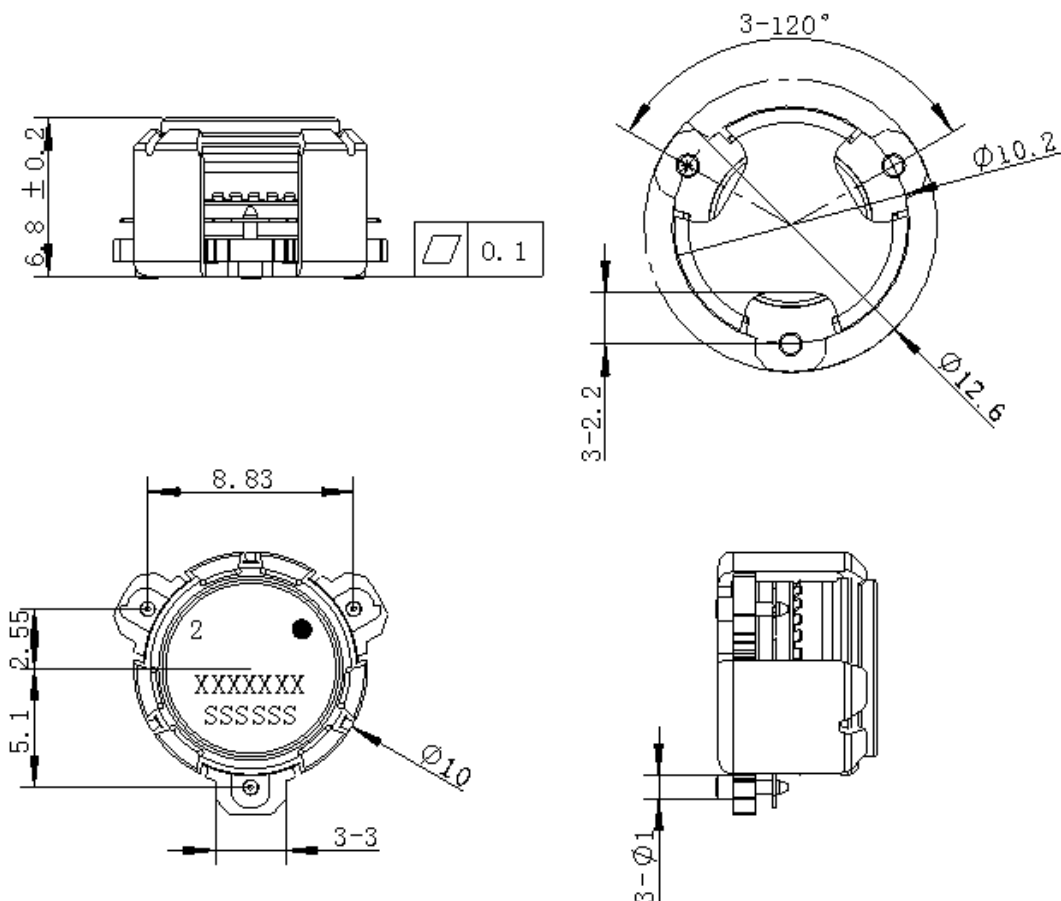
ITEM	SPECIFICATION	
Frequency	3600~3800	MHz
Direction	CCW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.19@25±10℃ 0.23@-40~+105℃	dB
Isolation (Min.)	21	dB
Return Loss (Min.)	22	dB
3rd IMD (Max.)	-60@2*5W CW, Spacing 1MHz	dBc
Extend frequency	3400~4000	MHz
Group delay	2.0	ns
Ripple of group delay in extend frequency	-	ns
Isolation of extend frequency	16	
2nd harmonic suppression	10	dBc
3rd harmonic suppression	5	dBc
Power FWD/REV/PEAK	20/-/160	W
Termination/Attenuator	-	W/dB
Input Impedance ,real	+46~-+55@3600MHz +46~-+54@3700MHz +46~-+54@3800MHz	$\Omega$
Input Impedance ,imaginary	-6j~+3j@ @3600MHz -4.5j~+3j@3700MHz -2j~+5.5j@3800MHz	$\Omega$
Output Impedance ,real	/	$\Omega$
Output Impedance ,imaginary	/	$\Omega$
Resonance point of out-off-band	3400MHz~4000 MHz	

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: 0.1mm 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



PackagingStyle:

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

