



## DP0479C

### ENG PART: DP-7.0CM-3400T3800-CW

3400MHz to 3800MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	ZC.Wu	2021/05/19	Nick
B	Update the spec.	ZC.Wu	2021/11/24	Nick
C	Update the spec. and PIN size changed from 0.6 to 0.7	ZC.Wu	2021/12/2	Nick
D	Operating temperature changed from -40~+125 to -40~+110 and insertion loss change from 0.28/0.3 to 0.3/0.35	ZC.Wu	2022/9/16	Nick
E	Update the label	ZZ.Zhu	2023/8/1	Nick

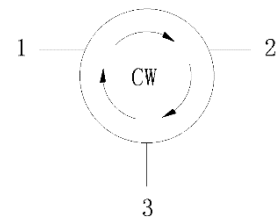


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 3400MHz to 3800MHz
- Operating temperature range: -40°C to +110°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:

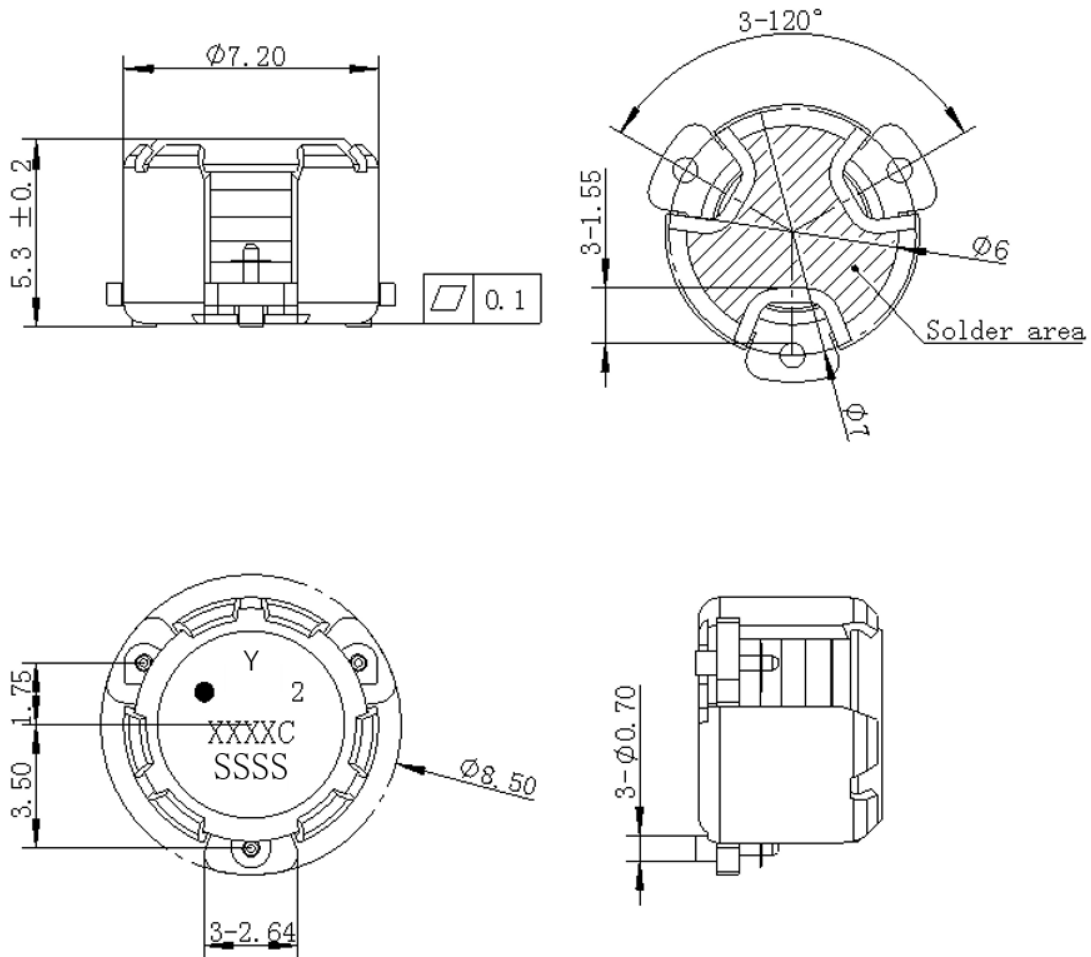
ITEM	SPECIFICATION	
Frequency	3400~3800	MHz
Direction	CW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.30@-20~+105 $^{\circ}$ C 0.35@-40~+110 $^{\circ}$ C	dB
Insertion loss ripple (Max.)	0.1	dB
Isolation (Min.)	21@-20~+105 $^{\circ}$ C 20@-40~+110 $^{\circ}$ C	dB
Return Loss (Min.)	21@-20~+105 $^{\circ}$ C 20@-40~+110 $^{\circ}$ C	dB
3rd IMD (Max.)	-65@ 2x37dBm spacing 5MHz	dBc
Harmonic product generation (Max.)	-56@43dBm CW signal input	dBc
2nd harmonicRejection (Min.)	12	dB
3rd harmonicRejection (Min.)	10	dB
Phase flatness vs. frequency (Max..)	0.5@3300MHz~3900MHz	deg
Power FWD/REV/PEAK(Max.)	43/42/50	dBm
Resonance point of out off band	/	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:



Unit: Millimeters

#### Notes:

1. The housing and pins are silver-plated.
2. Tolerance  $\pm 0.2\text{mm}$  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 "Y" show on the label represents the producing year, when printing the producing year, A stands for 2022, B for 2023, C for 2024, and so on (reference DP's file WDPT PD-003).
6. The **XXXXC** on the label represents the last five digits of the Part Number.
7. The SSSS on the label represents the serial number
8. The black dot on the label represents the input port



Packaging Style:

ITEM	W	A0	B0	C0	K0	D	E	F	F2	P	P0	P2	T
DIM	24	Φ7.4	9.2	2.7	6.0	Φ1.5	1.75	11.5	-	20	4	2	0.5
TOLE	±0.2	±0.2	±0.2	±0.2	±0.2	+0.1	±0.1	±0.15	±0.1	±0.1	±0.1	±0.1	±0.05

