

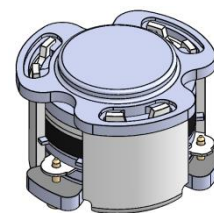


## DP0578C

### ENG PART:DP-7.0CM-2220T2380-CCW

2220MHz to 2380MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	ZC.Wu	2021/7/27	Nick
B	Update the label	ZZ.Zhu	2023/8/1	Nick
C	Update contour drawing	ZZ.Zhu	2024/1/26	Nick

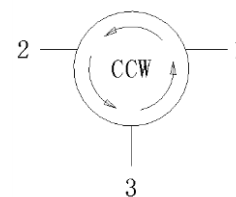


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 2220MHz to 2380MHz
- Operating temperature range: -40°C to +110°C
- Storage temperature range: -40°C to +125°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram



### Electrical Specifications:

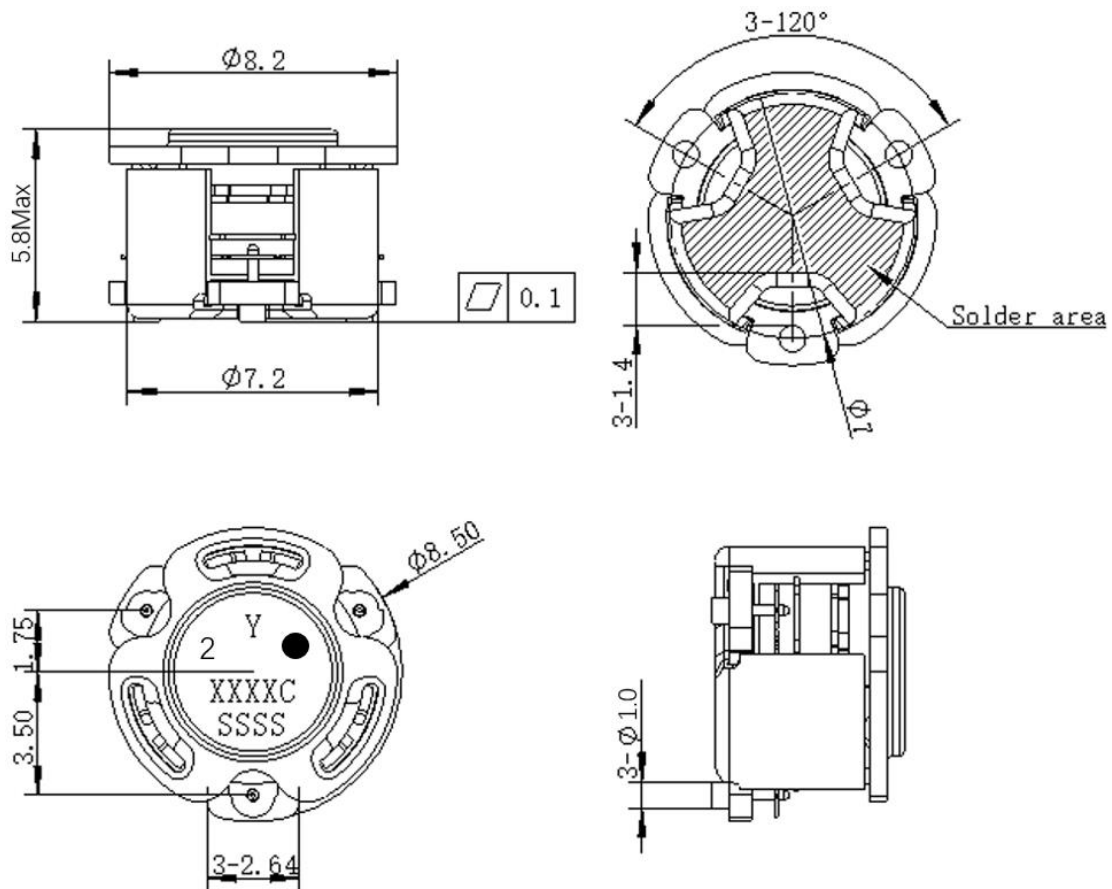
ITEM	SPECIFICATION	
Frequency	2220~2380	MHz
Direction	CCW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.4@25±10°C 0.45@-40~+110°C	dB
Isolation (Min.)	21@25±10°C 18@-40~+110°C	dB
Return Loss (Min.)	21@25±10°C 18@-40~+110°C	dB
3rd IMD (Max.)	-60@2x5W CW tones, 1MHz spacing	dBc
3rd IMD (Max.)	-55@2x10W CW tones, 1MHz spacing	dBc
Group delay	2	ns
2nd harmonic attenuation	15	dB
3rd harmonic attenuation	10	dB
Nx harmonic attenuation	5	dB
2nd Harmonic suppression (Max.)	-60@10W CW	dBc
3rd Harmonic suppression (Max.)	-60@10W CW	dBc
Power FWD/REV/PEAK	30/30/150	W
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:



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

