

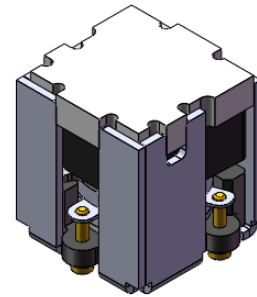


## DP0495C

### ENG PART: DP-3.8X3.8-6425T6825-CW

6425MHz to 6825MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	ZC.Wu	2021/06/02	Nick
B	Update the Mechanical Spec.	ZC.Wu	2021/06/22	Nick
C	Update the Mechanical Spec.	ZC.Wu	2021/06/24	Nick
D	Update the Electrical Spec. and outline drawing	ZC.Wu	2022/5/9	Nick
E	Update the Electrical Spec. and outline drawing	ZC.Wu	2022/5/16	Nick

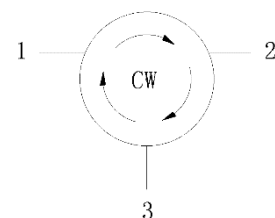


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 6425MHz to 6825MHz
- 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:**

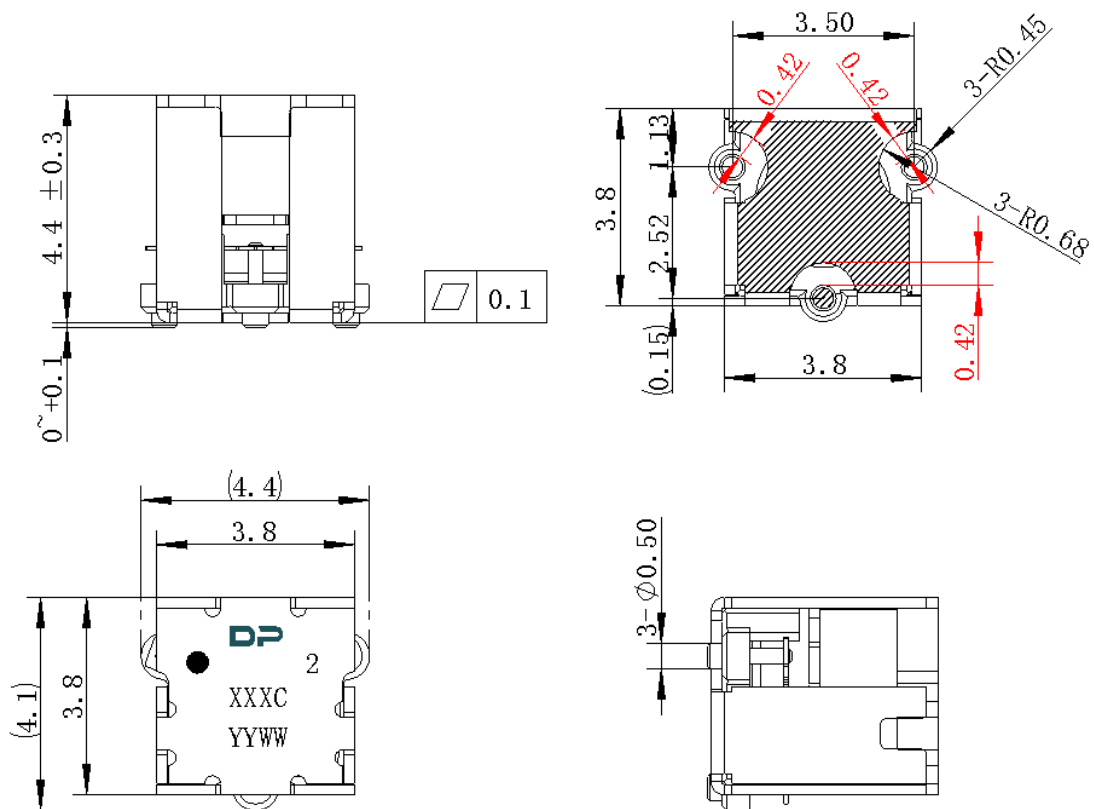
ITEM	SPECIFICATION	
Frequency	6425~6825	MHz
Direction	CW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.45 Typ. @ 25°C ± 10°C 0.5 @ 25°C ± 10°C 0.6 @ -40~+105°C	dB
Isolation (Min.)	20 Typ. @ 25°C ± 10°C 18	dB
Return Loss (Min.)	20 Typ. @ 25°C ± 10°C 18	dB
3rd IMD (Max.)	-	dBc
Group delay	2	ns
2nd harmonic attenuation	/	dB
3rd harmonic attenuation	/	dB
Extend Frequency	6175-7075	MHz
Isolation of extend frequency	15 Typ. @ 25°C ± 10°C 13	dB
Power FWD/REV/PEAK	2/-/20	W
Resonance point of out off band	Resonance point away 5600MHz-7700MHz	W/dB
Input Impedance ,real	/	$\Omega$
Input Impedance ,imaginary	/	$\Omega$

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 the operating temperature up to 130 °C.



### Mechanical Specifications:



Unit: Millimeters

#### Notes:

1. Tolerance  $\pm 0.2$  mm unless otherwise specified.
2. Co-planarity Specification:  $0.1$  mm maximum.
3. Part Number, Lot Code, and Port Designation are printed on the top side of device
4. The **XXXXC** on the label represents the last five digits of the Part Number.
5. Date code is in format **YYWW**
6. The black dot on the label represents the input port