

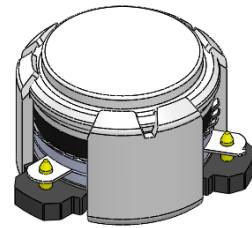


## DP3831C

### ENG PART: DP-10.2IM-2200T2650-CW

2200MHz to 2650MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
1	Creating datasheet	ZC.Wu	2025/3/17	Nick

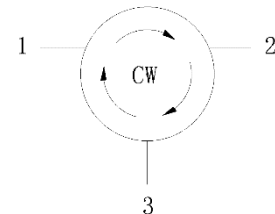


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 2200MHz to 2650MHz
- Operating temperature range: -40°C to +105°C
- Storage temperature range: -50°C to +135°C
- Small surface-mount package delivered on T&R
- BeO free & RoHS compliant



Block Diagram



### Electrical Specifications:

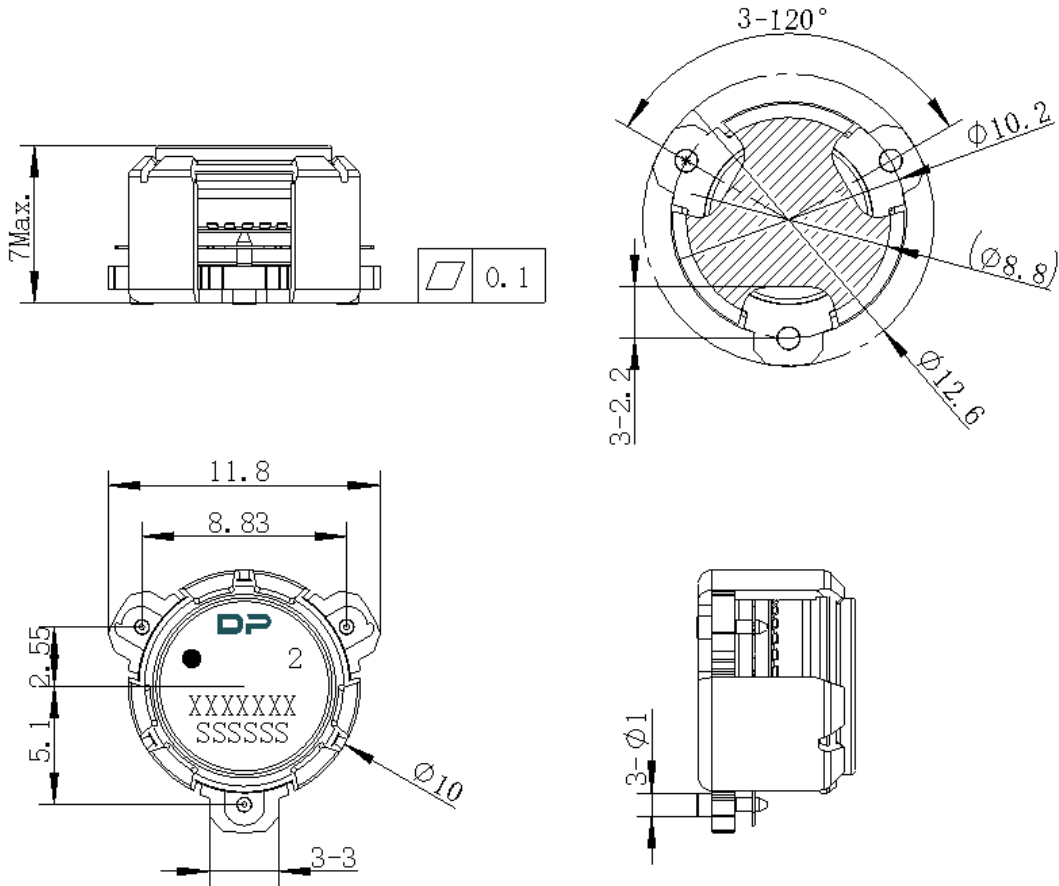
ITEM	SPECIFICATION	
Frequency	2200~2650	MHz
Direction	CW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.45@25 $\pm$ 5 $^{\circ}$ C 0.50@-40~+105 $^{\circ}$ C	dB
Isolation (Min.)	17.5@25 $\pm$ 5 $^{\circ}$ C 16.5@-40~+105 $^{\circ}$ C	dB
Return Loss (Min.)	17.5@25 $\pm$ 5 $^{\circ}$ C 16.5@-40~+105 $^{\circ}$ C	dB
3rd IMD (Max.)	-60@2x5W CW tones spacing 1MHz	dBc
5th IMD (Max.)	/	dBc
2nd Harmonics	12	dB
3rd Harmonics	6	dB
Group delay	/	ns
Power FWD/REV/PEAK	50/30/300	W
Impedance(real)	/	$\Omega$
Impedance (imaginary)	/	j $\Omega$
Termination/Attenuator	-/-	W/dB
No resonance during	2080~2770MHz	

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  $^{\circ}$ C.



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:  $0.1\text{mm}$  maximum.
4. Part Number, Lot Code, and Port Designation are printed on the top side of device.
5. Part Number format shall be XXXXXXXX
6. Serial Number format shall be SSSSSS
7. The black dot on the label represents the input port