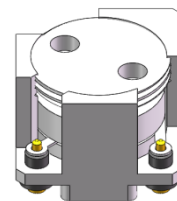




## DP1003C

2496MHz to 2690MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A		ZC.Wu	2020/03/30	

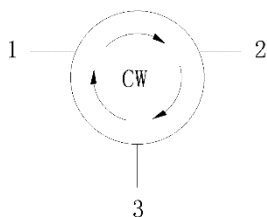


### Applications:

- Wireless Infrastructure
- Power Amplifier

### Features:

- Operating frequency range: 2496MHz to 2690MHz
- Operating temperature range: -40°C to +125°C
- Storage temperature range: -55°C to +150°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram



### Electrical Specifications:

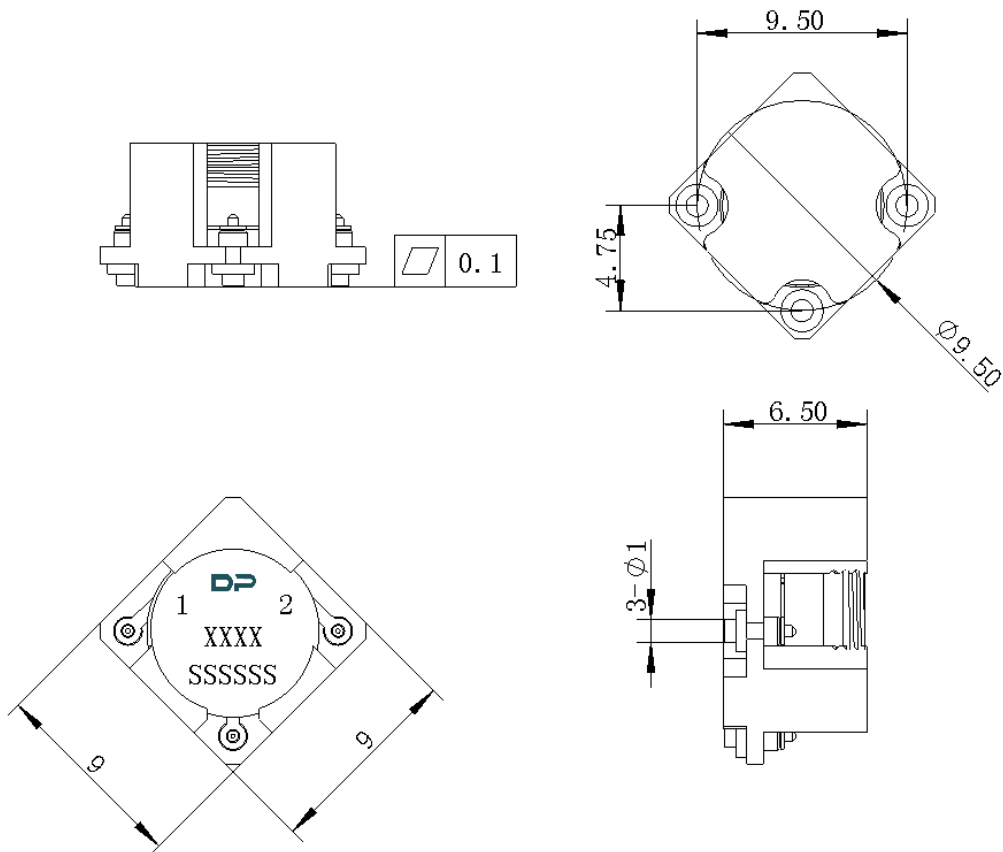
ITEM	SPECIFICATION	
Frequency	2496~2690	MHz
Direction	CW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.30@25 $\pm$ 10 $^{\circ}$ C 0.35@-40~+125 $^{\circ}$ C	dB
Isolation (Min.)	20@25 $\pm$ 10 $^{\circ}$ C 18@-40~+125 $^{\circ}$ C	dB
Return Loss (Min.)	20@25 $\pm$ 10 $^{\circ}$ C 18@-40~+125 $^{\circ}$ C	dB
3rd IMD (Max.)	-62@2x5W Spacing 1MHz	dBc
Group delay	/	ns
Insert Loss@ 2nd harmonic (Min)	15	dB
Insert Loss@3rd harmonic (Min)	10	dB
Power FWD/REV/PEAK	50/-/200 (Used duty cycle 100:1 pulse signal to test)	W
Input Impedance ,real	45~55	$\Omega$
Input Impedance ,imaginary	-4.7j~+4.7j	$\Omega$
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.
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 is silver-plated and pins are gold-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. Part Number format shall be XXXX (Last four digits)
6. Serial Number format shall be SSSSSS



Packaging Style:

ITEM	W	A0	B0	K0	D	E	F	F2	P	P0	P2	T
DIM	32	9.4	9.4	6.8	Φ1.5	1.75	14.2	28.5	24	4	2	0.5
TOLE	±0.3	±0.2	±0.2	+0.2	+0.1	±0.1	±0.15	±0.1	±0.1	±0.1	±0.1	±0.05

