

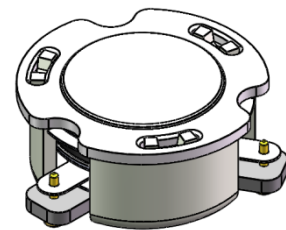


## DP3078C

### ENG PART:DP-15.5CM-2496T2690-CCW

2496MHz to 2690MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Producing release	ZC.Wu	2024/9/30	Nick
B	Added Input Impedance and test method	ZC.Wu	2024/10/23	Nick

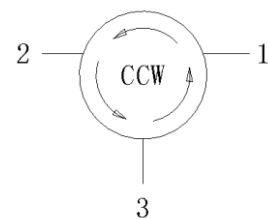


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 2496MHz to 2690MHz
- Operating temperature range: -40°C to +115°C
- Storage temperature range: -50°C to +125°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram

**Electrical Specifications:**

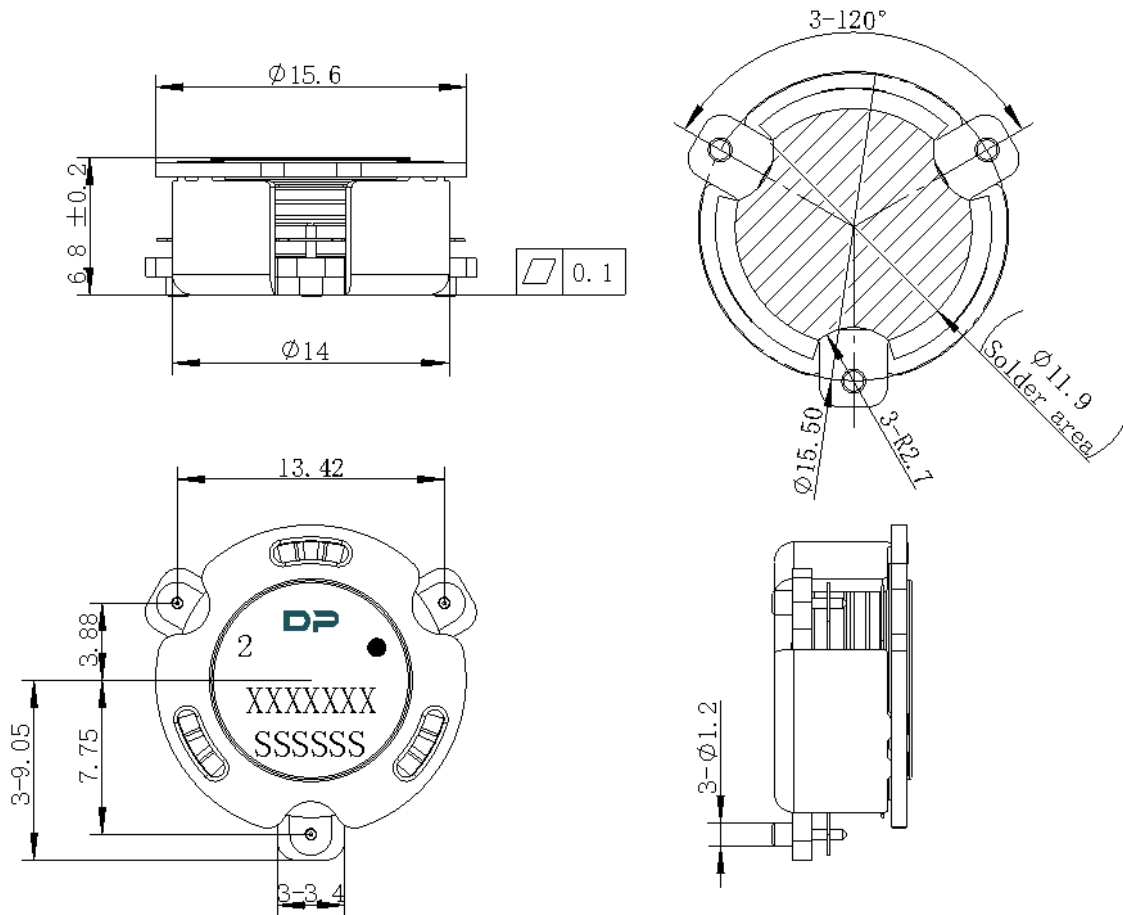
ITEM	SPECIFICATION	
Frequency	2496~2690	MHz
Direction	CCW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.25	dB
Isolation (Min.)	20	dB
Return Loss (Min.)	23 1@1896~3290MHz	dB
3rd IMD (Max.)	-65@2x50W , 5MHz spacing	dBc
5th IMD (Max.)	-	dBc
Harmonics	60@ 2 x TX (100W CW ) 60@ 3 x TX (100W CW )	dBc
Attenuation	20@2xTX 10@3xTX 5@nxTX	dB
Group delay	0.4~2.0	ns
Reciprocity	-0.05~+0.05 @Delta(S21 / S32) within any 10 °C temperature range	dB
	-1~+1 @Delta(S21 / S32) within any 10 °C temperature range	Deg
Power FWD/REV/PEAK	100/100/1000	W
Input Impedance (Real)	48.6±3@2496MHz	$\Omega$
	54.3±3@2593MHz	
	56.7±3@2690MHz	
Input Impedance (Imaginary)	+3.1±3@2496MHz	j $\Omega$
	+3.2±3@2593MHz	
	-0.3±3@2690MHz	
Output Impedance	/	$\Omega$
Testing method	1. Calibrate NWA with SOLT 2. Test fixture Input port reference at end of test cable, Other 2 Ports reference at PCB pad 3. Insertion Loss de-embed by the thru kits .	

## 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:**



Notes:

1. The housing and pins are silver-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. The **XXXXXXX** on the label represents the part number
6. The **SSSSSS** on the label represents the serial number
7. The black dot on the label represents the input port

Unit: Millimeters



Packaging Style:

ITEM	W	A0	B0	K0	D	E	F	F2	P	P0	P2	T
DM	44	Φ14.5	Φ17.2	7.3	Φ1.5	1.75	20.2	40.5	28	4	2	0.5
TOL	±0.3	±0.2	±0.2	±0.2	+0.1	±0.1	±0.15	±0.1	±0.1	±0.1	±0.1	±0.05

