

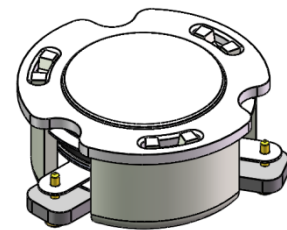


## DP2909C

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

2496MHz to 2690MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	SAME AS REV.1	ZZ.Zhu	2023/12/14	Nick

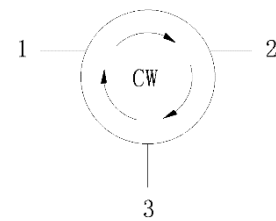


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

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



Block Diagram

**Electrical Specifications:**

ITEM	SPECIFICATION	
Frequency	2496~2690	MHz
Direction	CW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.20@-40~+115 $^{\circ}$ C 0.25@+115~+125 $^{\circ}$ C	dB
Isolation (Min.)(P2-P1)	23@2496~2690MHz 20@2476~2710MHz 10@2296~2890MHz 8 @2096~3090MHz 6@1896~3290MHz	dB
Return Loss (Min.)	23@2496~2690MHz (0~125 $^{\circ}$ C) 20@2496~2690MHz (-40~0 $^{\circ}$ C) 20@2476~2710MHz 6@2296~2890MHz 6 @2096~3090MHz 3@1896~3290MHz	dB
3rd IMD (Max.)	-69@2x50W , 1MHz spacing	dBc
5th IMD (Max.)	-79@2x50W , 1MHz spacing	dBc
Harmonics	60@ 2 x TX (100W CW ) 60@ 3 x TX (100W CW )	dBc
Out of band attenuation	20@2xTX 10@3xTX 5@nxTX	dB
Group delay	0.4~2.0	ns
Deviation from nominal delay over temperature range	$\pm 0.05$ (Measured with fixed frequency)	ns
Reciprocity	-0.05~+0.05 @Delta(S21 / S32) within any 10 $^{\circ}$ C temperature range	dB
	-1~+1 @Delta(S21 / S32) within any 10 $^{\circ}$ C temperature range	Deg
Power FWD/REV/PEAK	150/100/1500	W
Max voltage rating	1080	V
Input Impedance (real)	50 $\pm$ 2.5(the reference point at Isolator Pad)	$\Omega$
Input Impedance (Imaginary)	-2.5j~+2.5j(the reference point at Isolator Pad)	$\Omega$
Output Impedance	50	$\Omega$
Resonance out of	2104~3082	MHz



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Termination/Attenuator	/-	W/dB
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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.



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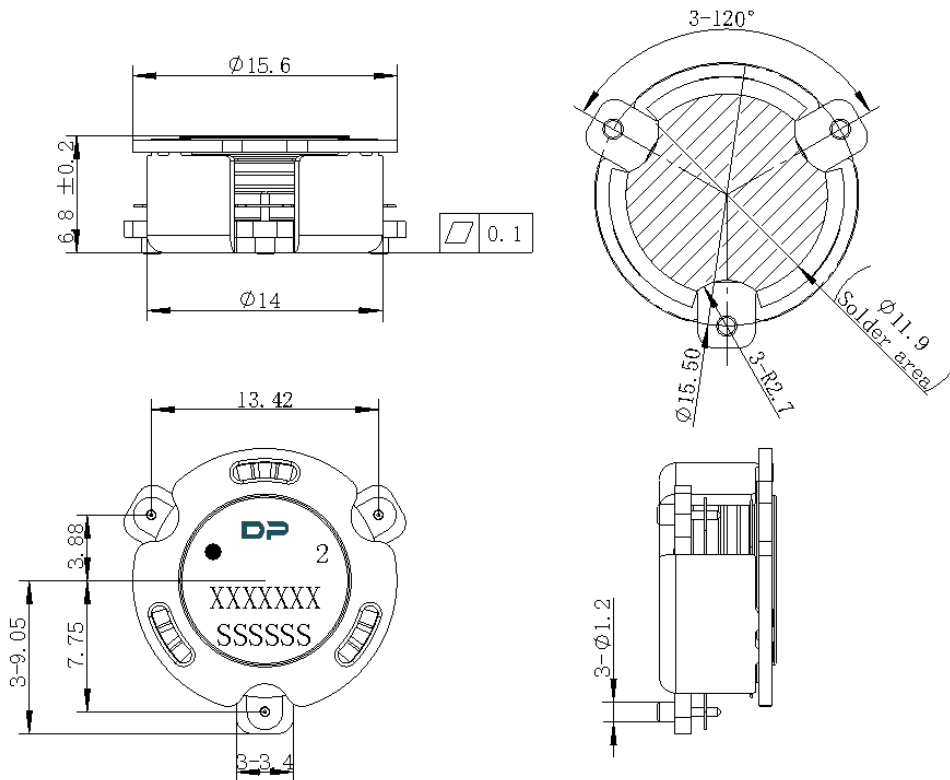
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**Mechanical Specifications:**



Unit: Millimeters





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 **XXXXXXXX** 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

Packaging Style:

ITEM	W	A0	B0	K0	D	E	F	F2	P	P0	P2	T
DIM	44	$\Phi 14.5$	$\Phi 17.2$	7.3	$\Phi 1.5$	1.75	20.2	40.5	28	4	2	0.5
TOLE	$\pm 0.3$	$\pm 0.2$	$\pm 0.2$	$\pm 0.2$	$+0.1$	$\pm 0.1$	$\pm 0.15$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$\pm 0.1$	$\pm 0.05$

