

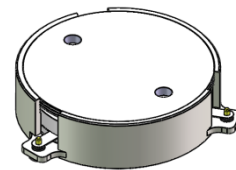


DP2778C

ENG PART:DP-35.0CM-2496T2690-CCW

2496MHz to 2690MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	SAME AS REV.1	ZZ.Zhu	2023/9/8	Nick

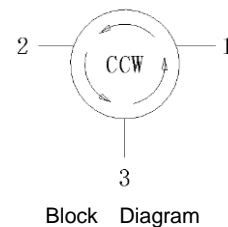


Applications:

- Wireless Infrastructure
- Power Amplifier

Features:

- Operating frequency range: 2496MHz to 2690MHz
- Operating temperature range: -40°C to +120°C
- Storage temperature range: -55°C to +150°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram

**Electrical Specifications:**

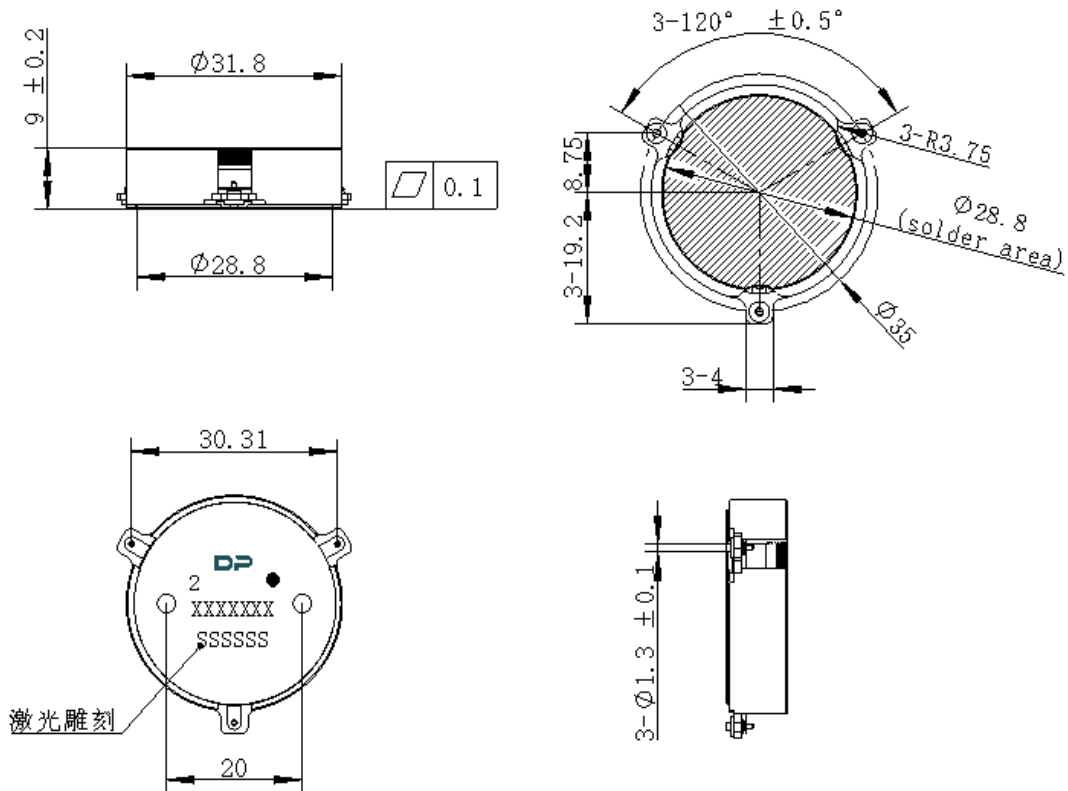
ITEM	SPECIFICATION	
Frequency	2496~2690	MHz
Extend frequency	2346~2840	MHz
Direction	CCW	
Impedance	Typ: 50	Ω
Insertion Loss (Max.)	0.20@25 \pm 5 $^{\circ}$ C	dB
	0.22 (typ. 0.20) @-40~+120 $^{\circ}$ C	
Isolation (Min.)	22 (Typ. 25)	dB
	14@2346~2840MHz	
Return Loss (Min.)	22	dB
FWD 3rd IMD (Max.)	-65@2x100W,CW tones,spacing 1MHz	dBc
Group delay	2	ns
2nd harmonic suppression	15	dBc
3rd harmonic suppression	5	dBc
Power FWD/REV/PEAK	300/-/2200	W
Ripple of group delay in extend frequency	/	ns
Input Impedance ,real	45~51 (typ. 48) @2496MHz	Ω
	47~53 (typ. 50) @2593MHz	
	49~55 (typ. 52) @2690MHz	
Input Impedance ,imaginary	-5j~1j (typ. -2j) @2496MHz	Ω
	-4j~2j (typ. -1j) @2593MHz	
	-4j~2j (typ. -1j) @2690MHz	
Output Impedance ,real	44~52 (typ. 48) @2496MHz	Ω
	46~54 (typ. 50) @2593MHz	
	48~56 (typ. 52) @2690MHz	
Output Impedance ,imaginary	-6j~2j (typ. -2j) @2496MHz	Ω
	-5j~3j (typ. -1j) @2593MHz	
	-5j~3j (typ. -1j) @2690MHz	
Out-off-band resonance point	Resonance point away 2046 MHz to 3140 MHz	

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 ± 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 dots represent the input ports



Packaging Style:

ITEM	W	A0	B0	K0	D	E	F	F2	P	P0	P2	Γ
DM	56	Φ32.2	-	9.5	Φ1.5	1.75	26.25	52.5	48	4	2	0.5
TOLE	±0.3	±0.2	±0.2	±0.15	+0.1	±0.1	±0.15	±0.1	±0.1	±0.1	±0.1	±0.05

