



DP0739C

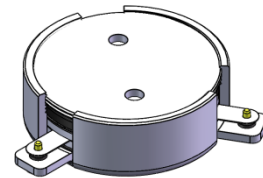
ENG PART:DP-28.4CM-1310T1530-CW

1310MHz to 1530MHz Single-Junction Surface Mount Circulator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	ZC.Wu	2021/11/8	Nick
B	Update Electrical Spec.	ZC.Wu	2021/11/18	Nick
C	Update the impedance	ZC.Wu	2022/4/2	Nick
D	Update the impedance	ZC.Wu	2025/2/7	Nick

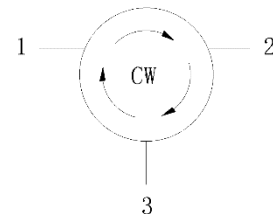
Applications:

- Wireless Infrastructure
- Power Amplifier



Features:

- Operating frequency range: 1310MHz to 1530MHz
- 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:**

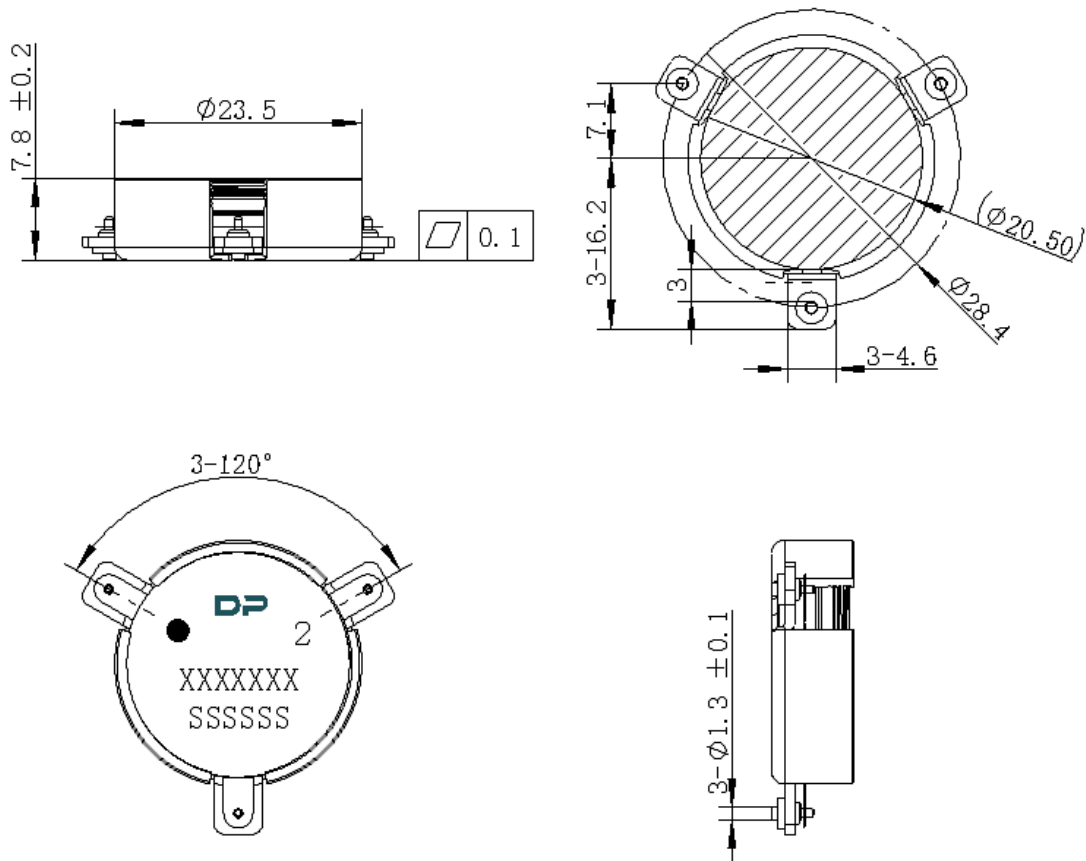
ITEM	SPECIFICATION	
Frequency	1310~1530	MHz
Direction	CW	
Impedance	Typ: 50	Ω
Insertion Loss (Max.)	0.25@25 \pm 5 $^{\circ}$ C 0.30@-40~+120 $^{\circ}$ C	dB
Isolation (Min.)	22 10@1170MHz~1670MHz	dB
Return Loss (Min.)	22 2@1700MHz~1900MHz	dB
FWD 3rd IMD (Max.)	-65@2x80W, Spacing 1MHz	dBc
Extend frequency	1170~1670	MHz
Group delay	2	ns
Ripple of group delay in extend frequency	2	ns
2nd harmonic suppression	15	dBc
3rd harmonic suppression	9	dBc
Power FWD/REV/PEAK	200/-/1600	W
Input Impedance ,real	+49 ~+55(Typ. 52) @1310MHz +45 ~+51(Typ. 48) @1420MHz +49 ~+55(Typ. 52) @1530MHz	Ω
Input Impedance ,Imaginary	-5~+1(Typ. -2) @1310MHz -1 ~+5(Typ. +2) @1420MHz -1 ~+5(Typ. +2) @11530MHz	j Ω
output Impedance ,real	45~55	Ω
output Impedance ,imaginary	-5j~+5j	Ω
Resonance point out-off-band	1110 MHz to 1730 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 $\pm 0.2\text{mm}$ 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	T
DM	56	Φ24.2	-	8.4	Φ1.5	1.75	26.25	52.5	40	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

