

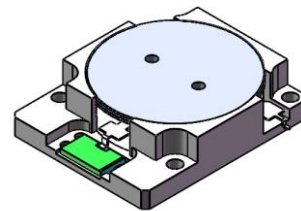


## DP2116S

### ENG PART:DP-31.8X38.8ID-758T960-CCW

758MHz to 960MHz Single-Junction Drop-in Isolator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Producting release	ZZ.Zhu	2022/11/14	Nick
B	Update the Isolation spec.	ZC.Wu	2022/11/30	Nick
C	Add spec.@+105~+125°C	ZC.Wu	2022/12/1	Nick
D	Update the spec.	ZC.Wu	2022/12/27	Nick

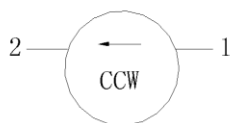


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 758MHz to 960MHz
- Operating temperature range: -40°C to +125°C
- Storage temperature range: -65°C to +155°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram



### Electrical Specifications:

ITEM	SPECIFICATION	
Frequency	758~960	MHz
Direction	CCW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.30@25±5°C (758~821MHz & 925~960MHz) 0.35@-20~+105°C (758~821MHz & 925~960MHz) 0.40@-40~-20&+105~+125°C	dB
Isolation (Min.)	20@25±5°C (758~821MHz & 925~960MHz) 18@-20~+105°C (758~821MHz & 925~960MHz) 15@-40~-20&+105~+125°C 7@658MHz~1020 MHz	dB
Return Loss (Min.)	20@25±5°C (758~821MHz & 925~960MHz) 18@-20~+105°C (758~821MHz & 925~960MHz) 15@-40~-20&+105~+125°C	dB
3rd IMD (Max.)@ 25±5°C	-68@2x100W CW tones, 1MHz spacing (850M/900M) -70@2x100W CW tones, 1MHz spacing (700M/800M)	dBc
3rd IMD (Max.)@-40~+125°C	-65@2x100W CW tones, 1MHz spacing (850M/900M) -65@2x100W CW tones, 1MHz spacing (700M/800M)	dBc
Extend frequency	658~1020	MHz
Group delay	2.5	ns
Ripple of group delay in extend frequency	2	ns
Resonance point of out-off-band	Resonance point away 658MHz to1020 MHz	MHz
2nd harmonicsuppression	12@+25°C ±5°C 10@-40°C ~+125°C	dBc
3rd harmonicsuppression	8	dBc
Power FWD/REV/PEAK	280/150(At the maximum operating temperature and the maximum reverse input power, The parts is not damaged for 30 minutes.) /2200	W
Termination/Attenuator	250/-	W/dB
Input Impedance ,real	50~66@758MHz 40~50@821MHz 42~54@925MHz 45~65@960MHz 38~66@758-960MHz	$\Omega$
Input Impedance ,imaginary	-7j ~+16j@758MHz -6j ~+6j@821MHz -2j ~+7j@925MHz -16j ~+4j@960MHz -16j ~+16j@758-960MHz	$\Omega$



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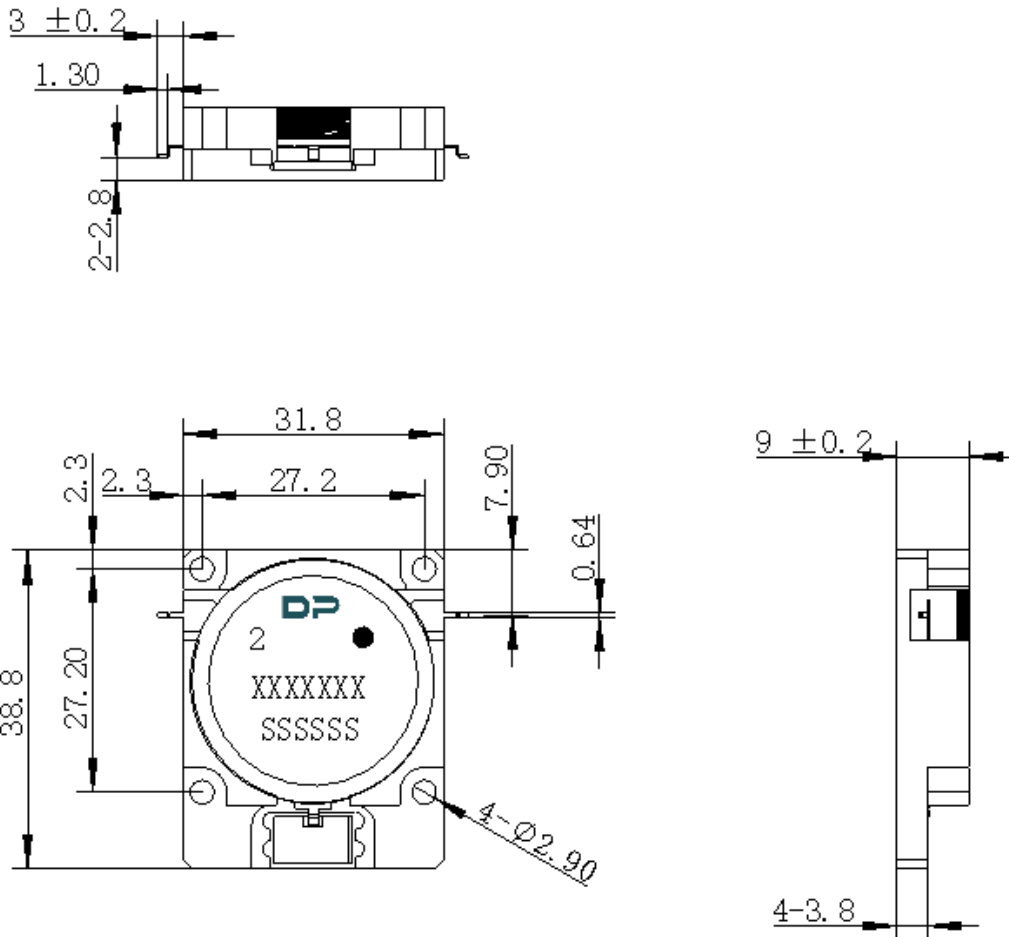
Output Impedance ,real	50~66@758MHz 40~50@821MHz 42~54@925MHz 45~65@960MHz 38~66@758-960MHz	$\Omega$
Output Impedance ,imaginary	-7j ~+16j@758MHz -6j ~+6j@821MHz -2j ~+7j@925MHz -16j ~+4j@960MHz -16j ~+16j@758-960MHz	$\Omega$

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% with operating temperature up to 130 °C.



### Mechanical Specifications:



Unit: Millimeters

#### Notes:

1. The housing is nickel-plated and pins is 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. Part Number format shall be XXXXXXX
6. Serial Number format shall be SSSSS
7. The black dot on the label represents the input port