

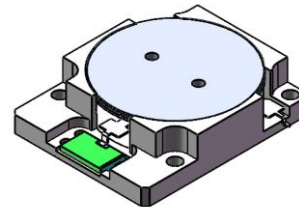


DP2116S

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 |
| E | Update the insertion loss spec. (Same as Rev. D1) | ZC.Wu | 2023/1/13 | Nick |

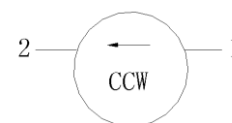


Applications:

- 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
- BeO free & RoHS compliant



Block Diagram

**Electrical Specifications:**

| ITEM | SPECIFICATION | |
|---|---|----------|
| Frequency | 758~960 | MHz |
| Direction | CCW | |
| Impedance | Typ: 50 | Ω |
| Insertion Loss (Max.) | 0.30@25±5℃ (758~821MHz & 925~960MHz) 0.35@-20~+105℃ 0.40@-40~-20&+105~+125℃ | dB |
| Isolation (Min.) | 20@25±5℃ (758~821MHz & 925~960MHz) 18@-20~+105℃ (758~821MHz & 925~960MHz) 15@-40~-20&+105~+125℃ 7@658MHz~1020 MHz | dB |
| Return Loss (Min.) | 20@25±5℃ (758~821MHz & 925~960MHz) 18@-20~+105℃ (758~821MHz & 925~960MHz) 15@-40~-20&+105~+125℃ (758~821MHz & 925~960MHz) | dB |
| 3rd IMD (Max.)@ 25±5℃ | -68@2x100W CW tones, 1MHz spacing (850M/900M) -70@2x100W CW tones, 1MHz spacing (700M/800M) | dBc |
| 3rd IMD (Max.)@-40~+125℃ | -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℃±5℃ 10@-40℃~+125℃ | 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 | Ω |
| Input Impedance ,imaginary | -7j ~+16j@758MHz -6j ~+6j@821MHz -2j ~+7j@925MHz -16j ~+4j@960MHz | Ω |



Guangdong Dapu Telecom Technology Co., Ltd

<http://www.dptel.com>

Bldg13-16,.N.Ind.Zone,SSLIndustry
Park,DongguanCity,Guangdong
Province,PRChina
TEL:0086-0769-88010888
FAX:0086-0769-81800098

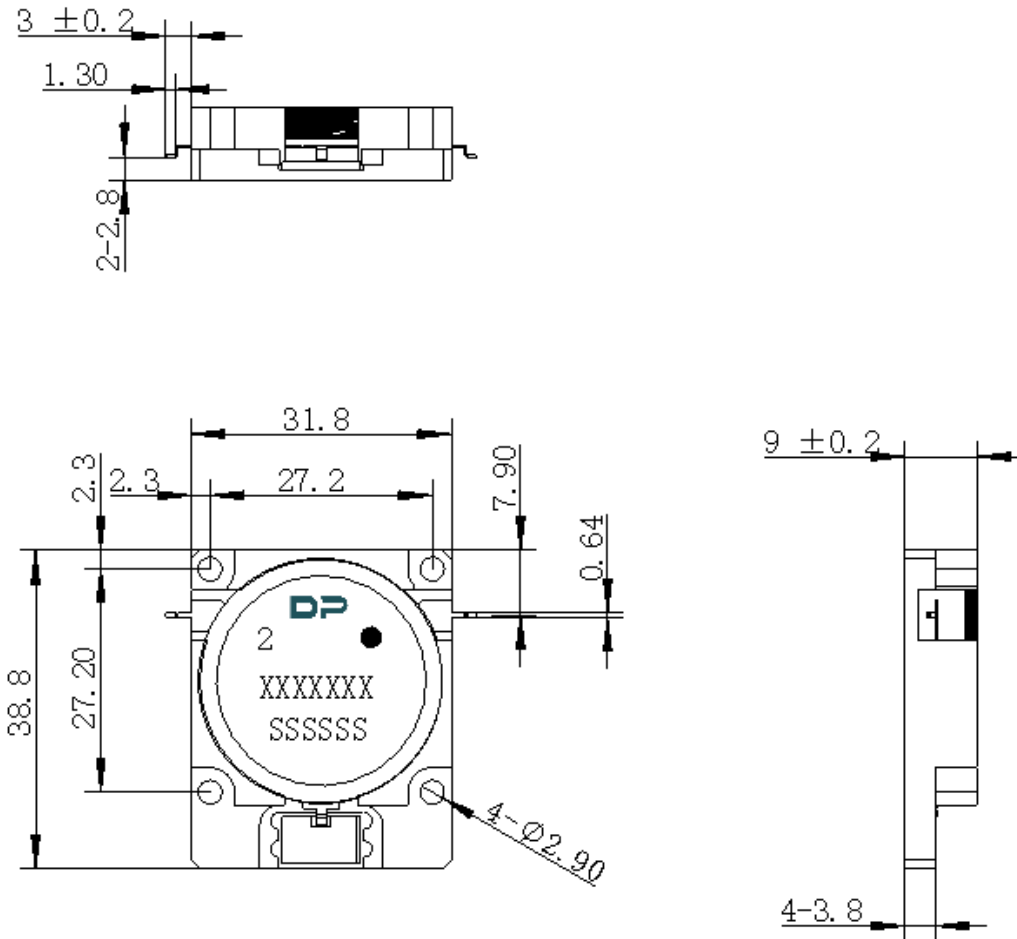
| | | |
|-----------------------------|---|----------|
| | -16j ~+16j@758-960MHz | |
| Output Impedance ,real | 50~66@758MHz 40~50@821MHz 42~54@925MHz 45~65@960MHz 38~66@758-960MHz | Ω |
| Output Impedance ,imaginary | -7j ~+16j@758MHz -6j ~+6j@821MHz -2j ~+7j@925MHz -16j ~+4j@960MHz -16j ~+16j@758-960MHz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

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 ± 0.2 mm unless otherwise specified.
3. Co-planarity Specification: 0.1 mm 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