

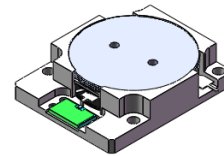


## DP0538S

### ENG PART:DP-31.8X38.8ID-617T746-CCW

617MHz to 746MHz Single-Junction Drop-in Isolator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	Creating datasheet	Jie.Jiang	2021/06/30	Nick
B	Update Isolation Specifications	Jie.Jiang	2021/07/28	Nick

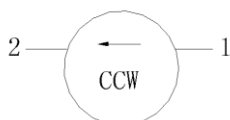


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 617MHz to 746MHz
- Operating temperature range: -40°C to +90°C
- Storage temperature range: -40°C to +150°C
- Small surface-mount package delivered on T&R
- BeO free & RoHS compliant



Block Diagram



**Electrical Specifications:**

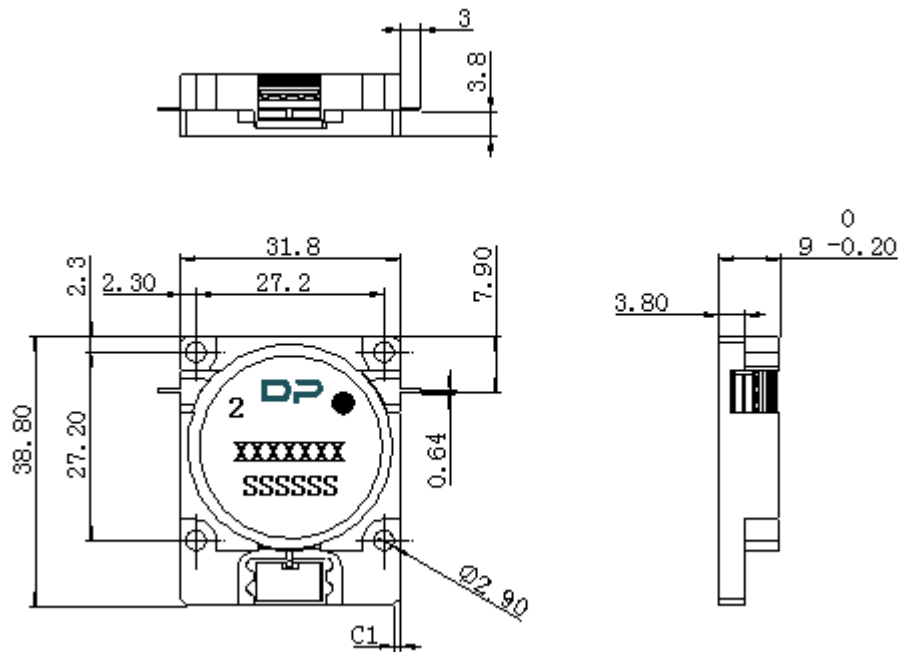
ITEM	SPECIFICATION	
Frequency	617~652 & 728~746	MHz
Direction	CCW	
Impedance	Typ: 50	Ω
Insertion Loss (Max.)	0.25@25°C 0.30@-40~+90°C	dB
Isolation (Min.)	23@25°C 22@-40~+90°C	dB
Return Loss (Min.)	23@25°C 22@-40~+90°C	dB
3rd IMD (Max.)	-77@2x43dBm CW tones, 4MHz spacing	dBc
Extend frequency	/	MHz
Group delay	/	ns
Ripple of group delay in extend frequency	/	ns
Resonance point of out-off-band	/	MHz
2nd harmonic suppression	-47@100W CW	dBc
3rd harmonic suppression	/	dBc
Power FWD/REV/PEAK	200/115W CW(1 Minute) 60W CW(Unlimited time @ 100(Base plate) /1500	W
Termination/Attenuator	250/-	W/dB
Input Impedance ,real	/	Ω
Input Impedance ,imaginary	/	Ω
Output Impedance ,real	/	Ω
Output Impedance ,imaginary	/	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 circuit is silver-plated.
2. Tolerance  $\pm 0.2$  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. The **XXXXXX** 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