

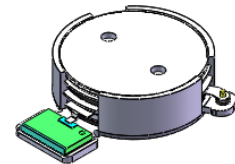


## DP3154S

### ENG PART:DP-27.28IM-1805T2200-CCW

1805MHz to 2200MHz Single-Junction Surface Mount Isolator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	SAME AS REV.1	ZZ.Zhu	2024/4/17	Nick
B	Updated the IMD and the impedance	ZC.Wu	2024/6/8	Nick

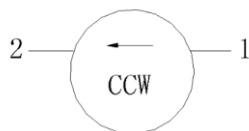


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 1805MHz to 2200MHz
- Operating temperature range: -40°C to +120°C
- Storage temperature range: -40°C to +115°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram

**Electrical Specifications:**

ITEM	SPECIFICATION	
Frequency	1805~2200	MHz
Extend frequency	1655~2320	MHz
Direction	CCW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.25@25°C $\pm$ 5°C 0.25@-40~+120°C	dB
Isolation (Min.)	22.0@-40~+120°C 12@1655MHz~2320MHz	dB
Return Loss (Min)	22.0@-40~+120°C	dB
3rd IMD (Max.)@-40~+120°C	-75@2*100W CW, Spacing 1MHz (1805~1880MHz) -68@2*100W CW, Spacing 1MHz (1881~2170MHz)	dBc
Group delay	2	ns
Ripple of group delay in extend frequency	2	ns
2nd harmonicsuppression	10	dBc
3rd harmonicsuppression	5	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	+47.5~+54.5 (typ.51) @1805 +43.5~+50.5 (typ.47) @1880 +42~+50 (typ.46) @1960 +46.5~+53.5 (typ.50) @2110 +49.5~+56.5 (typ.53) @2170	$\Omega$
Input Impedance ,imaginary	-6.5j~+0.5j (typ.-3) @1805 -3.5j~+3.5j (typ.0) @1880 -1.5j~+5.5j (typ.+2) @1960 +0.5j~+7.5j (typ.+4) @2110 -3.5j~+3.5j (typ.0) @2170	$\Omega$
Output Impedance ,real	+46~+56 (typ.51) @1805 +42~+52 (typ.47) @1880 +41~+51 (typ.46) @1960 +45~+55 (typ.50) @2110 +48~+58 (typ.53) @2170	$\Omega$
Output Impedance , imaginary	-8j~+2j (typ.-3) @1805 -5j~+5j (typ.0) @1880 -3j~+7j (typ.+2) @1960 -1j~+9j (typ.+4) @2110 -5j~+5j (typ.0) @2170	$\Omega$



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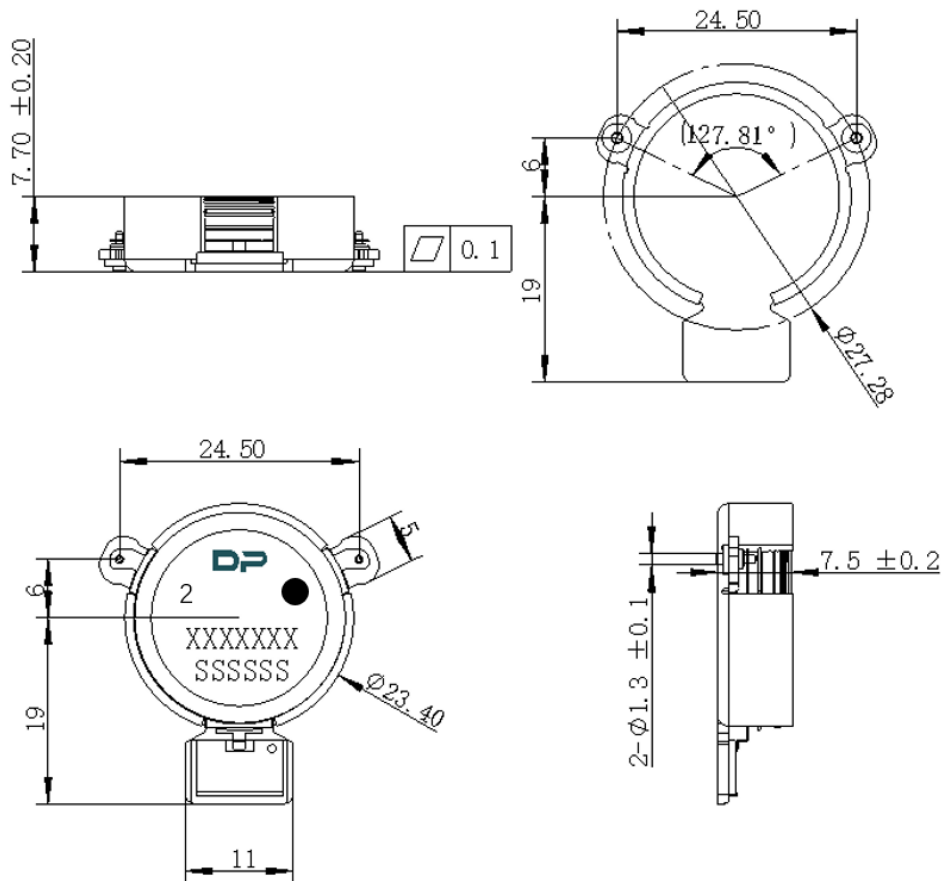
Resonance point of out-off-band	1605~2400MHz	
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Notes:

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 °C.



### Mechanical Specifications:



Unit: Millimeters

#### Notes:

1. The housing and pins are 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. Part Number format shall be XXXXXXX
6. Serial Number format shall be SSSSSS
7. The black dot on the label represents the input port