

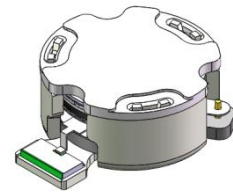


## DP3149S

### ENG PART: DP-15.5IM-1800T2175-CW

1800MHz to 2175MHz Single-Junction Surface Mount Isolator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	SAME AS REV.1	ZZ.Zhu	2024/5/30	Nick

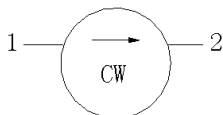


#### Applications:

- Wireless Infrastructure
- Power Amplifier

#### Features:

- Operating frequency range: 1800MHz to 2175MHz
- Operating temperature range: -40°C to +125°C
- Storage temperature range: -40°C to +125°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram

**Electrical Specifications:**

ITEM	SPECIFICATION	
Frequency	1800~1885&2105-2175	MHz
Direction	CW	
Impedance	Typ: 50	$\Omega$
Insertion Loss (Max.)	0.25	dB
Isolation (Min.)	22	dB
Return Loss (Min.)	22	dB
3rd IMD (Max.)	-69@2x10W CW tones spacing 1MHz	dBc
5th IMD (Max.)	-79@2x10W CW tones spacing 1MHz	dBc
Harmonics	60@2x f 20W CW 60@3x f 20W CW	dBc
Out of band attenuation	10@2x f 5@3x f 5@nx f (n=order of in- band frequency multiple)	dB
Group delay	0.4~2	ns
Reciprocity	-0.05~+0.05 @Delta(S21 / S32) within any 10 °C temperature range	dB
	-1~+1 @Delta(S21 / S32) within any 10 °C temperature range	Deg
Deviation from nominal delay	$\pm 0.05$	ns
Power FWD/REV/PEAK	20/20/90	W
Max voltage rating	/	V
Impedance ( real)	53 $\pm$ 3@1800MHz 50 $\pm$ 3@1842.5MHz 46 $\pm$ 3@1885MHz 46 $\pm$ 3@2105MHz 50 $\pm$ 3@2140MHz 53 $\pm$ 3@2175MHz	$\Omega$
Impedance (imaginary)	1.5 $\pm$ 3j@1800MHz -0.3 $\pm$ 3j@1842.5MHz -1.5 $\pm$ 3j@1885MHz 1.5 $\pm$ 3j@2105MHz 0.3 $\pm$ 3j@2140MHz -1.5 $\pm$ 3j@2175MHz	j $\Omega$
Termination/Attenuator	30/-	W/dB
No resonance during	/	

## Notes:

1. Exposure to maximum rating conditions for extended periods may reduce device reliability. There is no damage



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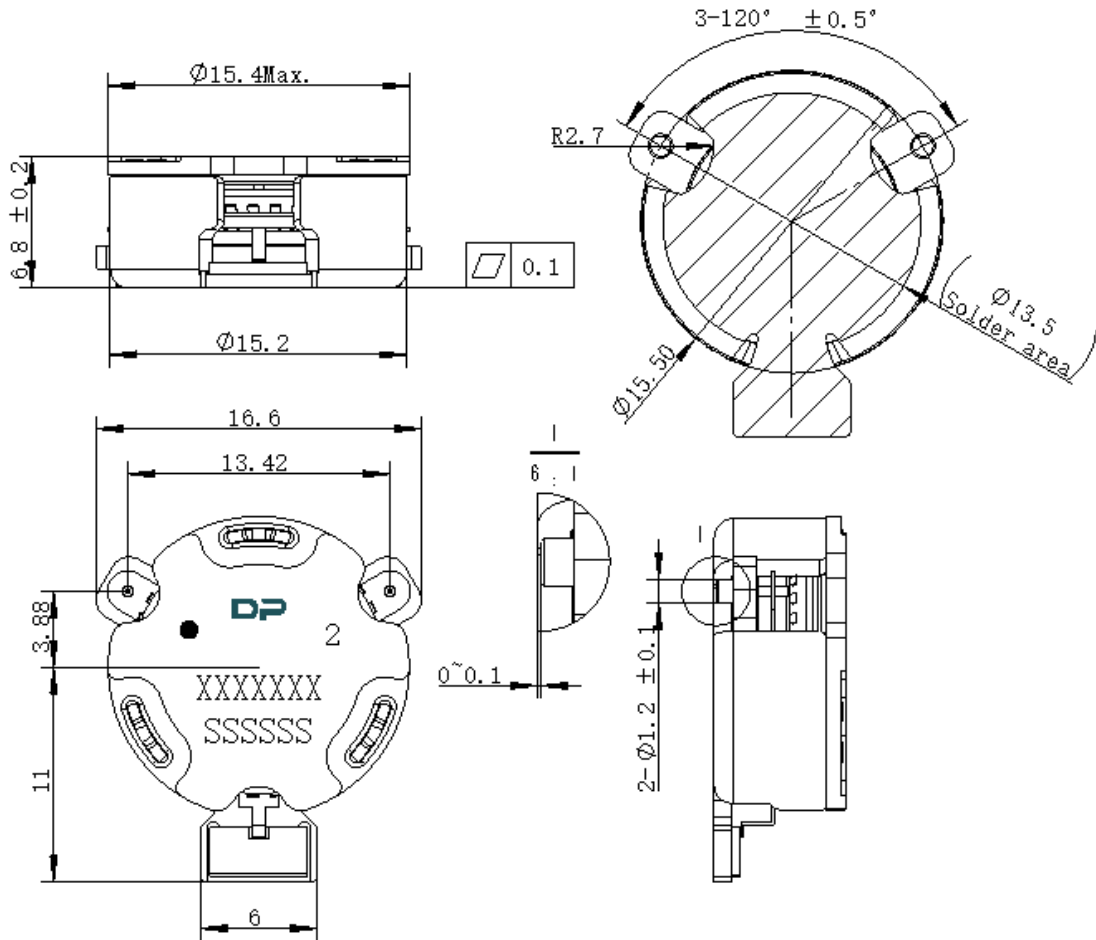
to device with only one parameter set at the limit and all other parameters set at or below their nominal value.

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: 0.1mm maximum.
4. Part Number, Lot Code, and Port Designation are printed on the top side of device.
5. Part Number format shall be XXXXXXXX
6. Serial Number format shall be SSSSSS
7. The black dot on the label represents the input port



Packaging Style:

ITEM	W	A0	B0	K0	D	E	F	F2	P	P0	P2	T
DIM	44	Φ15.5	Φ19.4	7.3	Φ1.5	1.75	20.2	40.5	28	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

