



DP3031S

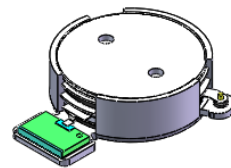
ENG PART: DP-27.28IM-1930T2200-CW

1930MHz to 2200MHz Single-Junction Surface Mount Isolator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A	SAME AS REV.1	ZZ.Zhu	2024/2/05	Nick

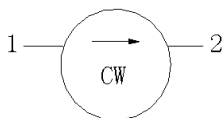
Applications:

- Wireless Infrastructure
- Power Amplifier



Features:

- Operating frequency range: 1930MHz to 2200MHz
- 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	1930~2200	MHz
Direction	CW	
Impedance	Typ: 50	Ω
Insertion Loss (Max.) @-40~+115 $^{\circ}$ C	0.30@1930~2200MHz 0.20@1930~1995MHz & 2110~2200MHz	dB
Insertion Loss (Max.) @+115~+125 $^{\circ}$ C	0.23@1930~1995MHz & 2110~2200MHz	dB
Isolation (Min.)	20@1930~2200MHz 23@1930~1995MHz & 2110~2200MHz 20@1910~1930MHz & 2200~2220MHz 10@1800~1910MHz & 2220~2380MHz	dB
Return Loss (Min.)	20@1930~2200MHz (0~+125 $^{\circ}$ C) 17@1930~2200MHz (-40~0 $^{\circ}$ C) 23@1930~1995MHz & 2110~2200MHz (0~+125 $^{\circ}$ C) 20@1930~1995MHz & 2110~2200MHz (-40~0 $^{\circ}$ C) 20@1910~1930MHz & 2200~2220MHz 6@1800~1910MHz & 2220~2380MHz	dB
3rd IMD (Max.)	-69@2x65W CW tones 1930~1995MHz & 2110~2200MHz	dBc
5th IMD (Max.)	-79@2x65W CW tones 1930~1995MHz & 2110~2200MHz	dBc
Harmonics	0@2x f 130W CW -10@3x f 130W CW -10@4x f 130W CW -35@5x f 130W CW -25@6x f 130W CW -25@7x f 130W CW	dBm
Out of band attenuation	10@2x f 10@3x f@1930~1995MHz 5@3x f@2110~2200MHz 5@nx f (n=order of in- band frequency multiple)	dB
Group delay	2.8	ns
Deviation from nominal delay	± 0.05	ns
Power FWD/REV/PEAK	150/80/1500	W
Max voltage rating	1080	V
Impedance control (the reference point at Isolator Pad) , real	50 ± 4.5	Ω
Impedance control (the reference point at Isolator Pad) , imaginary	± 5.5	j Ω



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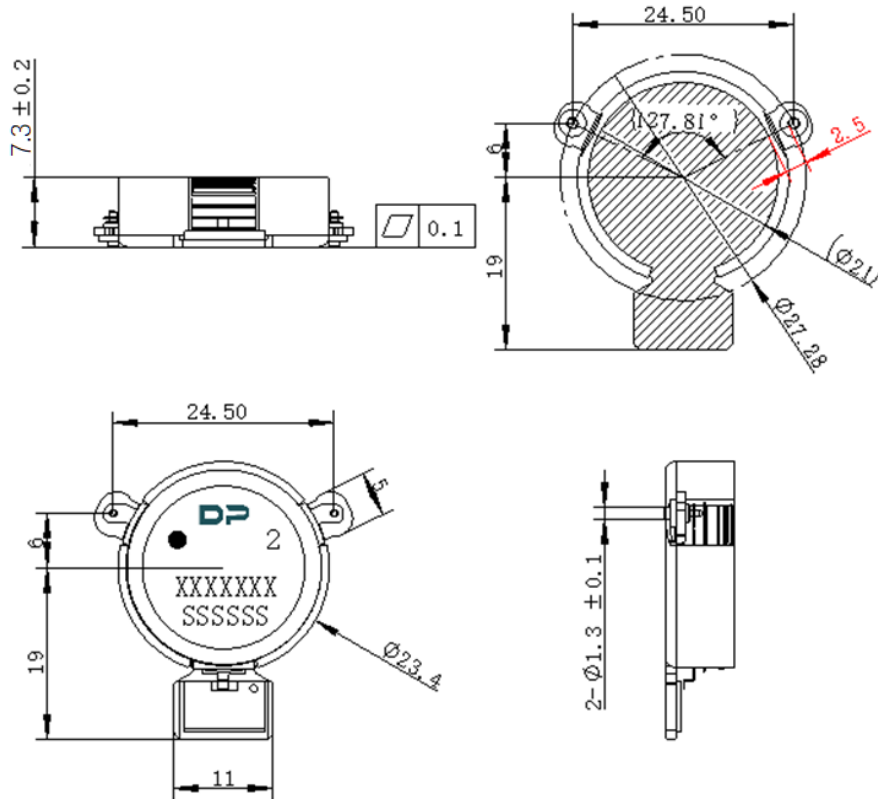
Termination/Attenuator	150/-	W/dB
No resonance during	1800~2380MHz	

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 ± 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



Packaging Style:

ITEM	W	A0	B0	K0	D	E	F	F2	P	P0	P2	T
DIM	56	Φ23.8	31.1	8.3	Φ1.5	1.75	26.25	52.5	44	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

