



DP1006S

ENG PART: DP-13.94IM-7050T8550-CCW

7050MHz to 8550MHz Single-Junction Surface Mount Isolator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
A		ZC.Wu	2020/07/14	DP.Zhang
B	Updated the mechanical Spec. and the label	ZC.Wu	2020/09/19	DP.Zhang
C	Changed the pin size from 1.0 to 0.7	ZC.Wu	2020/09/28	DP.Zhang
D	Change the appearance of product structure.	TZ.Wang	2020/10/20	DP.Zhang
E	1.change the temperature from -40~+85 to -40~+90; 2.remove the Impedance spec.; 3.update the power spec.; 4.Added spec.(see the table)	ZC.Wu	2021/08/30	DP.Zhang
F	Add the IMD spec. and update the outline drawing	ZC.Wu	2023/1/30	Nick

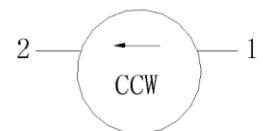


Applications:

- Wireless Infrastructure
- Power Amplifier

Features:

- Operating frequency range: 7050MHz to 8550MHz
- Operating temperature range: -40°C to +90°C
- Storage temperature range: -55°C to +125°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram



Electrical Specifications:

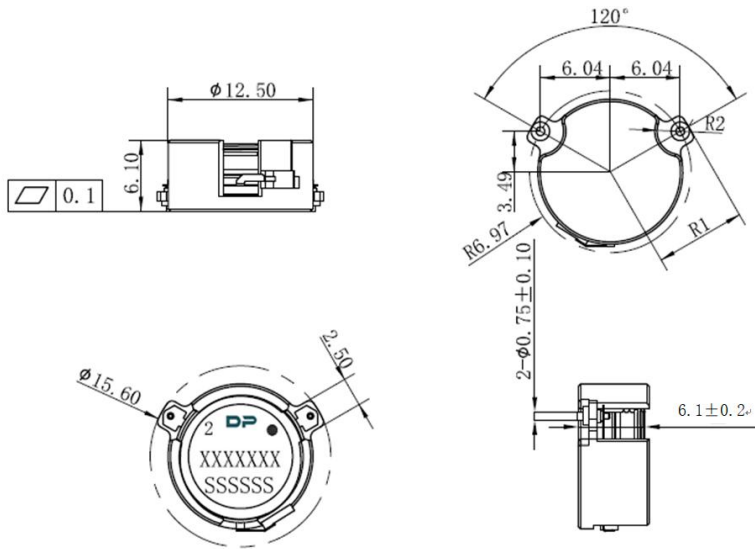
ITEM	SPECIFICATION	
Frequency	7050~8550	MHz
Direction	CCW	
Impedance	Typ: 50	Ω
Insertion Loss (Max.)	0.5	dB
Isolation (Min.)	20.0	dB
Return Loss (Min.)	18.0	dB
3rd IMD (Max.)	-53.5@2x29.15dBm CW Tones, spacing 1MHz	dBc
Extend frequency	/	MHz
Group delay	/	ns
Ripple of group delay in extend frequency	/	ns
Isolationof extend frequency	/	
2nd harmonicsuppression	/	dBc
3rd harmonicsuppression	/	dBc
Power FWD/REV/PEAK	20/15/-	W
Termination/Attenuator	/	W/dB
Input Impedance ,real	/	Ω
Input Impedance ,imaginary	/	Ω
Output Impedance ,real	/	Ω
Output Impedance ,imaginary	/	Ω
Frequency range of the insertion loss curve without resonance point @-40~+90 °C	6750~8850	MHz

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:



$7.5 \leq R1 \leq 8$ (Including the tolerances)

Unit: Millimeters

Notes:

1. The housing and pins are silver-plated.
2. Tolerance ± 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. The **XXXXXXX** 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