

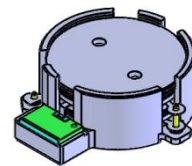


DP3769S

ENG PART: DP-27.28IM-738T960-CW

738MHz to 960MHz Single-Junction Surface Mount Isolator

REV.	DESCRIPTION	REVISOR	DATE	APPROVED
1	Creating datasheet	ZC.Wu	2025/2/20	Nick
2	Updated the spec.	ZC.Wu	2025/2/24	Nick

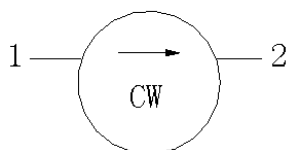


Applications:

- Wireless Infrastructure
- Power Amplifier

Features:

- Operating frequency range: 738MHz to 960MHz
- Operating temperature range: -40°C to +120°C
- Storage temperature range: -65°C to +155°C
- Small surface-mount package delivered on T&R
- BeOfree&RoHS compliant



Block Diagram

**Electrical Specifications:**

ITEM	SPECIFICATION	
Frequency	738~960	MHz
Extend frequency	658~1020	MHz
Direction	CW	
Impedance	Typ: 50	Ω
Insertion Loss (Max.)	0.8@25°C \pm 5°C 0.9@-40~+120°C	dB
Isolation (Min.)	27 7@658~1020MHz	dB
Return Loss (Min)	15	dB
3rd IMD (Max.)	-50@2*50W CW,Spacing 1MHz	dBc
5th IMD (Max.)	-60@2*50W CW,Spacing 1MHz	dBc
Group delay(Min.)	3.0	ns
Group delay in extend frequency(Min.)	3.0@703~995MHz	
Ripple of group delay in extend frequency	1.2 Max.@703~738MHz 1.0 Max@738~925MHz 3Max.@925~995MHz	ns
Ripple of S21 in extend frequency (Min.)	2@703~738MHz 0.5@38~960MHz; 3.0@960~995MHz	dB
2nd harmonic suppression	15	dBc
3rd harmonic suppression	10	dBc
Power FWD/REV/PEAK	151/150/1250	W
Termination/Attenuator	250/-	W/dB
Input Impedance ,real	+44~+66@758MHz +35~+50@821MHz +35~+54@925MHz +35~+65@960MHz +35~+66@758~960MHz	Ω
Input Impedance ,imaginary	-7~+16@758MHz -9~+6@821MHz -2~+7@925MHz -16~+4@960MHz -16~+16@758~960MHz	j Ω
Output Impedance ,real	+44~+66@758MHz +35~+50@821MHz +35~+54@925MHz +35~+65@960MHz +35~+66@758~960MHz	Ω
Output Impedance , imaginary	-7~+16@758MHz	j Ω



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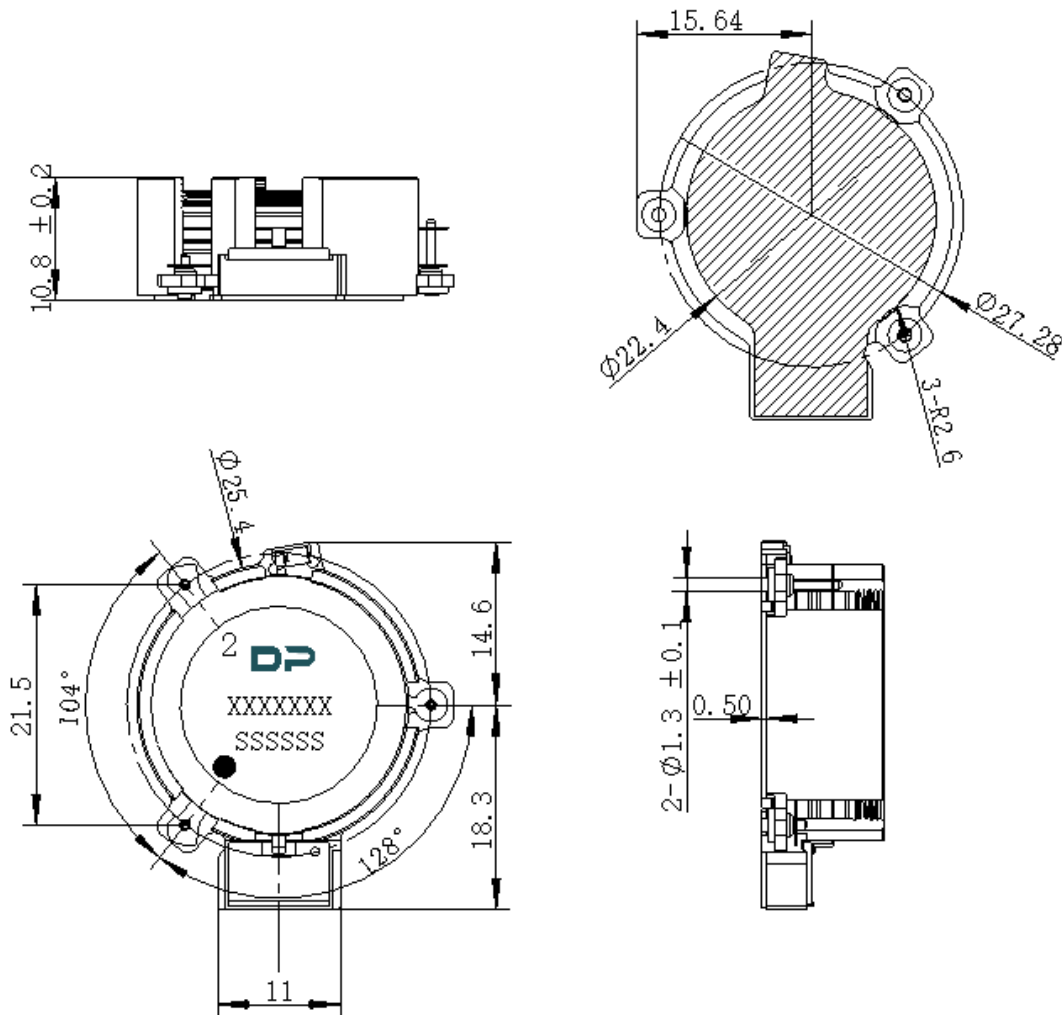
	-9~+6@821MHz -2~+7@925MHz -16~+4@960MHz -16~+16@758-960MHz	
Resonance point of out-off-band	960MHz~1020 MHz	

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% 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 SSSSSS
7. The black dot on the label represents the input port