

# SKYFR-001301: 5150—5850 MHz Single Junction Robust Lead Circulator

## Applications

- Power amplifiers



## Features

- Operating frequency range: 5150 to 5850 MHz
- BeO free
- RoHS compliant

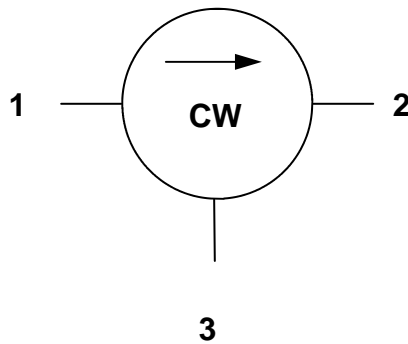


Figure 1. Block Diagram

Table 1. Absolute Maximum Ratings

Parameter	Symbol	Test Condition	Min	Max	Units
Average power	$P_{avr}$			10	W
Peak power	$P_{peak}$			30	W
Operating temperature range	$T_{OP}$		-40	+105	°C
Storage temperature range	$T_{STOR}$		-55	+150	°C

**Note:** Exceeding any of the limits listed here may result in permanent damage to the device or may reduce device reliability.

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**Table 2. Electrical Specifications (Note 1)**

Parameter	Symbol	Test Condition	Min	Typical	Max	Units
Frequency range	f		5150		5850	MHz
Impedance				50		Ω
Insertion loss	IL			0.20	0.35	dB
Isolation	ISO		20			dB
Return loss	RL		20			dB
Group delay					2.0	ns
Group delay variation					0.5	ns
Intermodulation distortion	IMD	2 X 1W CW tones, 1 MHz spacing	60			dBc

**Note 1:** Performance is guaranteed under the conditions listed in this table and over the operating temperature range.

**Note 2:** See Skyworks Application Note, *Intermodulation Distortion Measurements of Ferrites*, document number 201537 for further details.

**Note 3:** Tested on PCB-00129-001, Rogers RO4350B, 20 mils thick, trace width 42 mils

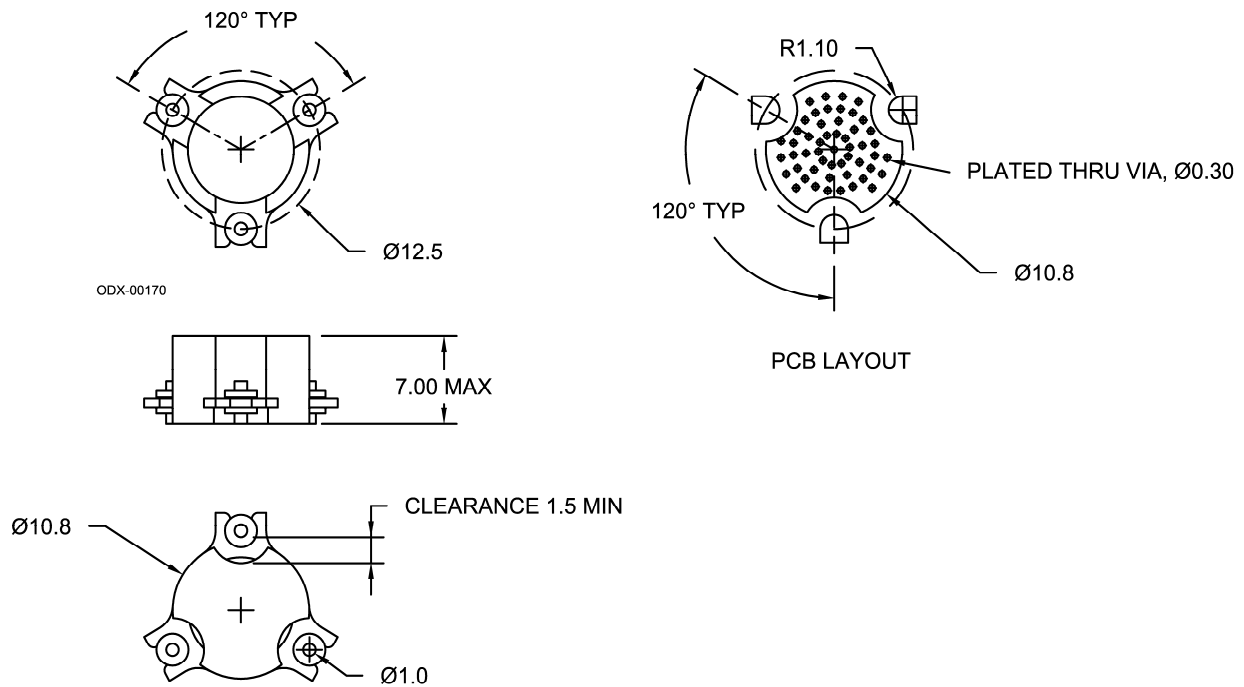
**Table 3. Plating Specification**

Section	Base Material	Plating
Pins	Bronze	Silver
Housing	Steel	Silver

**Table 4. Ordering Information**

Manufacturing Part Number	Evaluation Board Part Number
SKYFR-001301	TFX-00191-001

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All dimensions in millimeters.  
 Tolerance:  $\pm 0.2\text{mm}$  unless otherwise specified.  
 Model number, lot code and part designation printed on top side of device.

**Figure 2. Package Dimensions**

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