

SPECIFICATION SHEET

# SKYFR-001461: 2620—2690 MHz Single Junction Robust Lead Circulator

## Applications

- Wireless infrastructure
- Power amplifiers

## Features

- Small surface mount package
- Operating frequency range: 2620 to 2690 MHz
- BeO free
- RoHS compliant
- Tape & Reel

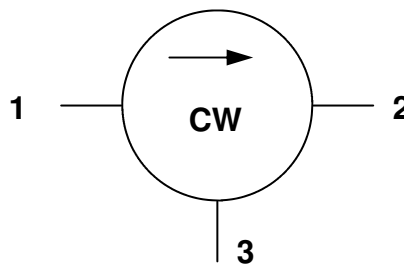
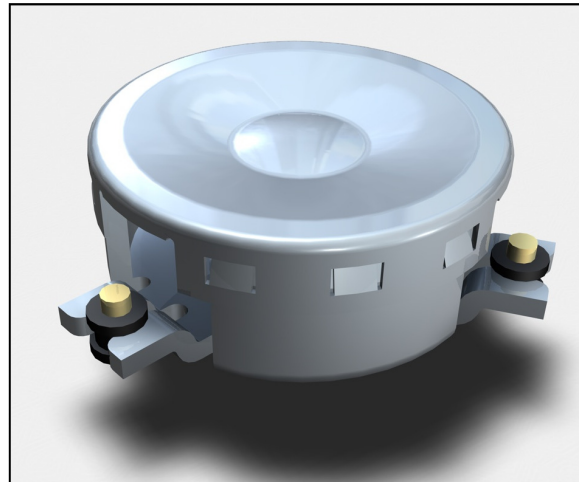


Figure 1. Block Diagram

Table 1. Absolute Maximum Ratings

Parameter	Symbol	Test Condition	Min	Max	Units
Average power	$P_{AVG}$			20	W
Peak power	$P_{PK}$			100	W
Operating temperature range	$T_{OP}$		-10	+105	°C
Extended operating temperature range	$TE_{OP}$		-40	+125	°C
Storage temperature range	$T_{STOR}$		-55	+125	°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		2620		2690	MHz
Impedance				50		Ω
Insertion loss	IL			0.15	0.20	dB
Insertion loss	IL	Over extended temperature range (-40°C to +125°C)		0.18	0.25	dB
Isolation	ISO		23	24		dB
Isolation	ISO	Over extended temperature range (-40°C to +125°C)	20	22		dB
Return loss	RL		23	24		dB
Return loss	RL	Over extended temperature range (-40°C to +125°C)	20	22		dB
Group delay					2.0	ns
Intermodulation distortion (Note 2)	IMD	2 x 5W CW tones, 1MHz spacing	55	65		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:** Part tested on PCB-00077, 0.508mm Rogers RO4350B, trace width 1.07mm wide, 1oz copper.

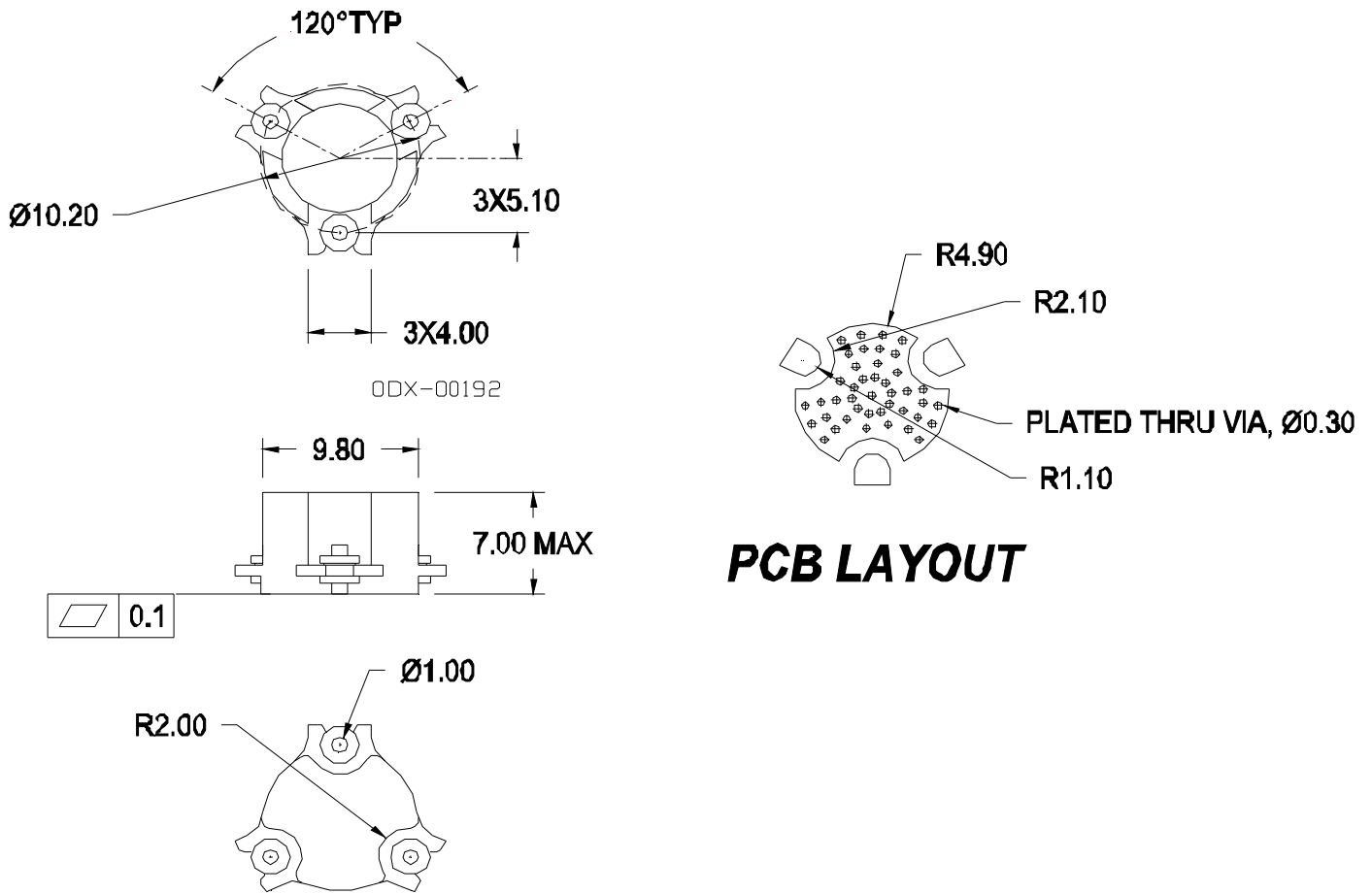
**Table 3. Plating Specification**

Section	Base Material	Plating
Pins	Brass	Silver
Housing	Steel	Silver

**Table 4. Ordering Information**

Manufacturing Part Number	Evaluation Board Part Number
SKYFR-001461	TFX-00118

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All dimensions in millimeters.  
 Tolerance: ±0.2mm unless otherwise specified.  
 Coplanarity specification: 0.1mm maximum.

**Figure 2. Package Dimensions and Recommended PCB Layout**

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