

SPECIFICATION SHEET

# SKYFR-000943: 2496—2690 MHz Single Junction Robust Lead Circulator

## Applications

- Wireless infrastructure
- Power amplifiers

## Features

- Small surface mount package
- Operating frequency range: 2496 to 2690MHz
- BeO free
- RoHS compliant

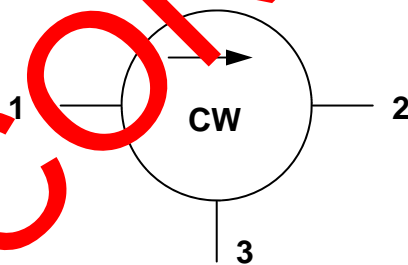


Figure 1. Block Diagram

Table 1. Absolute Maximum Ratings

Parameter	Symbol	Test Condition	Min	Max	Units
Average power	$P_{AVG}$			200	W
Peak power	$P_{PK}$			700	W
Operating temperature range	$T_{OP}$		-40	+85	°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.

Table 2. Electrical Specifications (Note 1)

Parameter	Symbol	Test Condition	Min	Typical	Max	Units
Frequency range	f		2496		2690	MHz
Impedance				50		$\Omega$
Insertion loss	IL	Port 1 to 2, port 2 to 3			0.25	dB
Isolation	ISO	Port 2 to 1, port 3 to 2, port 1 to 3	25			dB
Isolation	ISO	Port 2 to 1, port 3 to 2, port 1 to 3, 2463MHz—2750MHz	20			dB
Isolation	ISO	Port 2 to 1, port 3 to 2, port 1 to 3, 2376MHz—2810MHz	15			dB
Return loss	RL	All ports	24			dB
Return loss	RL	All ports, 2446MHz—2740MHz				dB
Intermodulation distortion (Note 2)	IMD	2 x 45W CW tones, 5MHz spacing			-76	dBc
Harmonics		2 x f 100W CW tone			-5	dBm
Harmonics		3-5 x f 100W CW tone			-7	dBm
Out of band attenuation		2 x f, 3 x f				dB
Out of band attenuation		n x f	5			dB
Group delay					2.0	ns
Group delay variation					0.2	ns

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

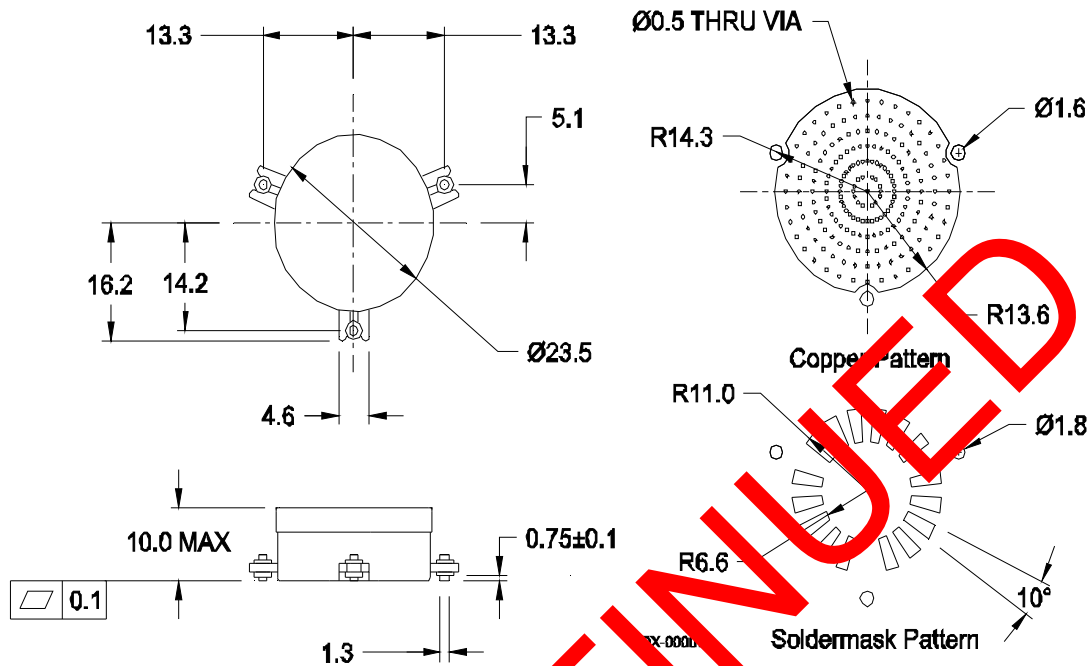
Note 2: See Skyworks Application Note, *Intermodulation Distortion Measurement of Ferrites*, document number 201537 for further details.

Table 3. Plating Specification

Section	Base Material	Plating
Pins	Bronze	Gold
Housing	Steel	Silver

Table 4. Ordering Information

Manufacturing Part Number	Evaluation Board Part Number
SKYFR-000943	TFX-00052



All dimensions in millimeters.  
 Tolerance: ±0.2mm unless otherwise specified.  
 Coplanarity specification: 0.1mm maximum.  
 Model number, lot code and port designation printed on the side of device.

Figure 2 Package Dimensions and Recommended PCB Layout

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