

# SKYFR-000800: 1890—2030 MHz Single Junction Robust Lead Isolator

## Applications

- Wireless infrastructure
- Power amplifiers

## Features

- Operating frequency range: 1890 to 2030 MHz
- BeO free
- RoHS compliant

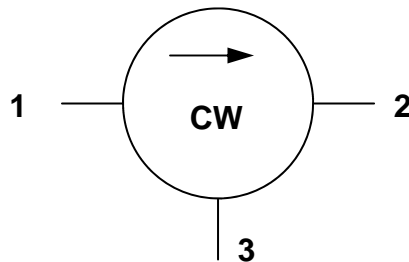


Figure 1. Block Diagram

Table 1. Absolute Maximum Ratings

Parameter	Symbol	Test Condition	Min	Max	Units
Average power, forward	$P_{AVG}$			50	W
Peak power, forward	$P_{PK}$			300	W
Average power, reverse	$P_{REV}$			50	W
Operating temperature range	$T_{OP}$		-40	+85	°C
Storage temperature range	$T_{STOR}$		-40	+100	°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		1890		2030	MHz
Impedance				50		$\Omega$
Insertion loss	IL				0.35	dB
Isolation	ISO		22			dB
Return loss	RL	Port 1 and Port 2	22			dB
Return loss	RL	Port 3	16			dB
Attenuation		Port 2 to Port 3	28	30	32	dB
Intermodulation distortion (Note 2)	IMD	2 x 22W CW tones, 5MHz spacing			-76	dBc
Harmonics		2 x $f_0$ , 50W CW			-5	dBm
Harmonics		3-5 x $f_0$ , 50W CW			-7	dBm
Out of band attenuation Port 1 to Port 2		2 x $f_0$	10			dB
Out of band attenuation Port 1 to Port 2		3 x $f_0$	10			dB
Out of band attenuation Port 1 to Port 2		n x $f_0$	5			dB
Group delay		Within frequency range	0.5		2.8	ns
Deviation from nominal delay over temperature range		Measured with fixed frequency			$\pm 0.05$	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 Measurements of Ferrites*, document number 201537 for further details.

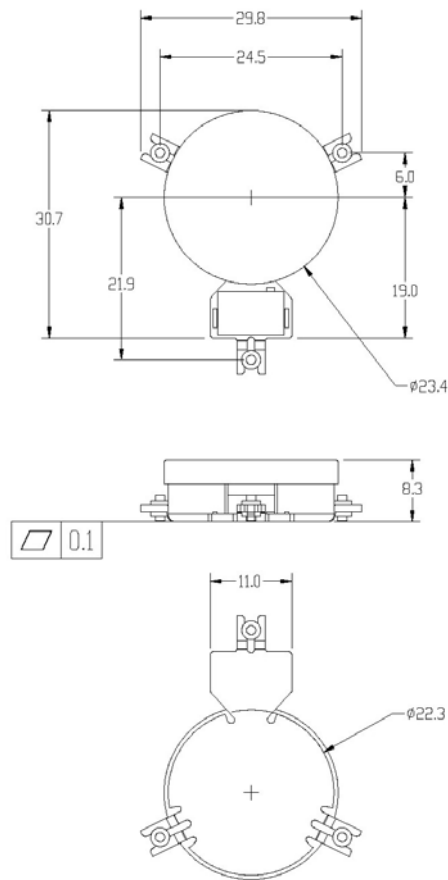
**Table 3. Plating Specification**

Section	Base Material	Plating
Pins	Bronze	Silver
Housing	Steel	Silver

**Table 4. Ordering Information**

Manufacturing Part Number	Evaluation Board Part Number
SKYFR-000800	TFX-00056

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ODX-00033

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

**Figure 2. Package Dimensions**

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