

SPECIFICATION SHEET

SKYFR-001069: 1930—1995 MHz Single Junction Robust Lead Isolator

Applications

- Wireless infrastructure
- Power amplifiers



Features

- Very small surface mount package
- Operating frequency range: 1930 to 1995 MHz
- BeO free
- RoHS compliant
- Tape & Reel

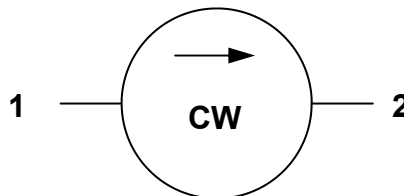
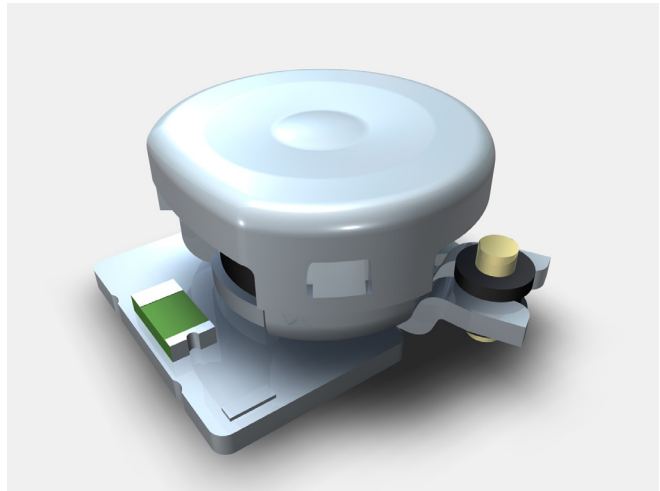


Figure 1. Block Diagram

Table 1. Absolute Maximum Ratings

Parameter	Symbol	Test Condition	Min	Max	Units
Average power	P_{AVG}			50	W
Peak power	P_{PK}			200	W
Reverse power	P_{REV}	Base temperature 130°C max		30	W
Operating temperature range	T_{OP}		-40	+100	°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.

Table 2. Electrical Specifications (Note 1)

Parameter	Symbol	Test Condition	Min	Typical	Max	Units
Frequency range	f		1930		1995	MHz
Impedance				50		Ω
Insertion loss	IL				0.30	dB
Isolation	ISO		23			dB
Isolation, extended band	ISO	1870 MHz to 2055 MHz	15			dB
Return loss	RL		21			dB
Input return loss, real		Reference plane is at bottom of input pin	43	50	60	Ω
Input return loss, imaginary		Reference plane is at bottom of input pin	-10		10	$j\Omega$
Output return loss, real		Reference plane is at bottom of input pin	40	50	60	Ω
Output return loss, imaginary		Reference plane is at bottom of input pin	-10		10	$j\Omega$
Group delay					2.0	ns
Group delay variation		1870 MHz to 2055 MHz			0.5	ns
2 nd harmonic attenuation			5			dB
3 rd harmonic attenuation			15			dB
Intermodulation distortion (Note 2)	IMD	2 x 15W CW tones, 5MHz spacing		-60	-57	dBc
Input & Output return loss, imaginary		$jX @ 1930 \text{ MHz} > jX @ 1995 \text{ MHz}$				$j\Omega$

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-00049, Rogers RO4350B, 20 mils thick, trace width 42 mils

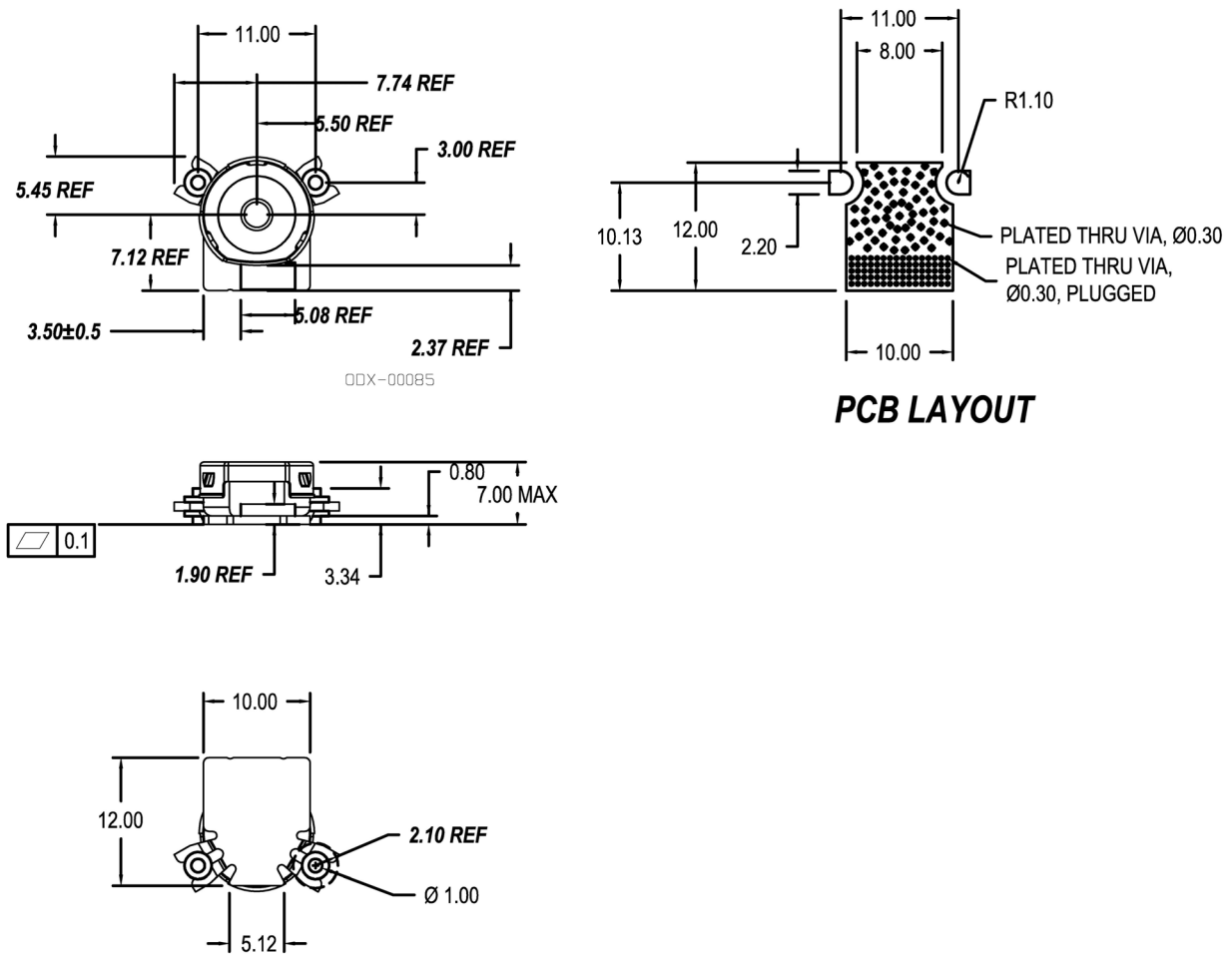
Table 3. Plating Specification

Section	Base Material	Plating
Pins	Brass	Silver
Housing	Steel	Silver

Table 4. Ordering Information

Manufacturing Part Number	Evaluation Board Part Number
SKYFR-001069	TFX-00065

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All dimensions in millimeters.
 Tolerance: $\pm 0.2\text{mm}$ unless otherwise specified.
 Coplanarity specification: 0.1mm maximum.
 Model number, lot code and part designation printed on top side of device.

Figure 2. Package Dimensions and Recommended PCB Layout

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