

SPECIFICATION SHEET

SKYFR-001797: 1805—1880 MHz Single Junction Robust Lead Isolator

Applications

- Wireless infrastructure
- Power amplifiers


Features

- Operating frequency range: 1805 to 1880 MHz
- BeO free
- RoHS compliant

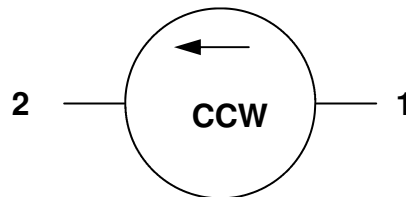


Figure 1. Block Diagram

Table 1. Absolute Maximum Ratings

Parameter	Symbol	Test Condition	Min	Max	Units
Input power	P			150	W
Peak power	P _{PK}			1000	W
Reverse power	P	With baseplate of 210°C for 10 minutes		60	W
Operating temperature range	T _{OP}		-40	+130	°C
Storage temperature range	T _{STOR}		-55	+130	°C

Note: The power rating and reliability of the device will not degrade with an operating temperature of up to +130°C. Exceeding any of the other 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		1805		1880	MHz
Impedance				50		Ω
Input impedance, real			46.5		53.5	Ω
Input impedance, imaginary			-j4.5		+j4.5	Ω
Insertion loss	IL				0.18	dB
Isolation	ISO		28			dB
Isolation	ISO	1655MHz—2030MHz	16			dB
Return loss, input	RL		25			dB
Return loss, output	RL		25			dB
Intermodulation distortion (Note 2)	IMD	2 x 65W CW tones, 1MHz spacing	70			dBc
Group Delay		1805MHz—1880MHz			2.0	ns
Group Delay variation		1805MHz—1880MHz			0.5	ns
Group Delay variation		1655MHz—2030MHz			2.0	ns
Resonance frequency			2080		1605	MHz
Harmonics, 2nd			10			dB
Harmonics, 3rd			5			dB

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: Performance will not degrade by >10% with an operating temperature of +130°C.

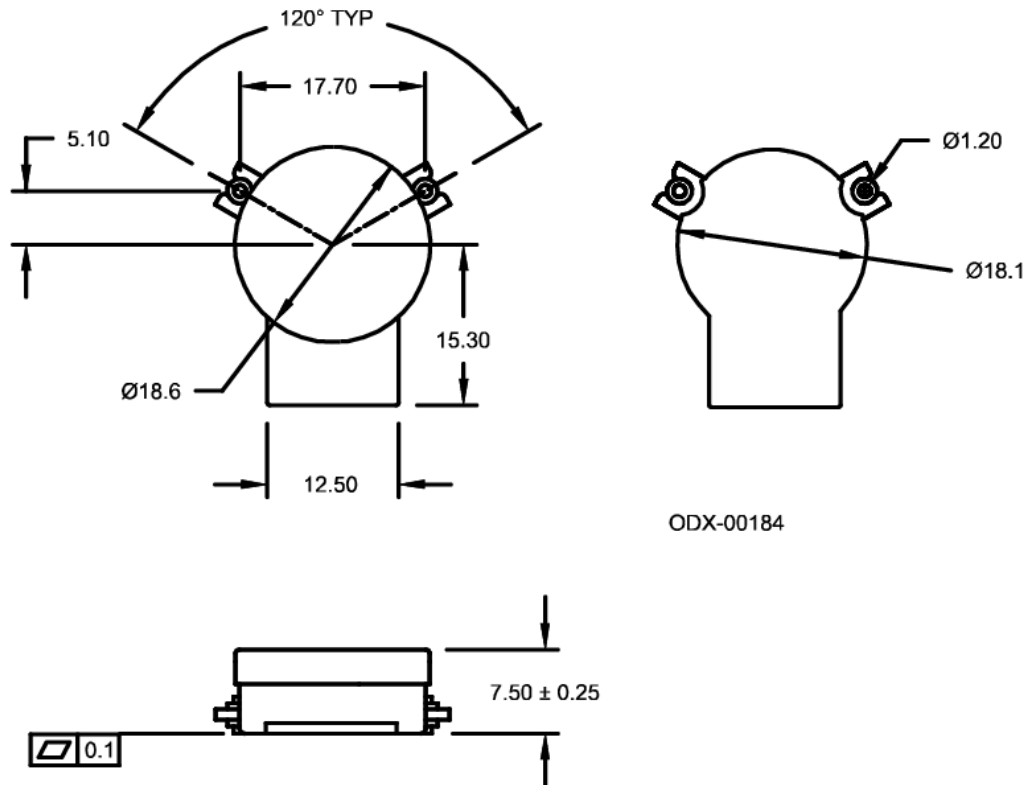
Note 4: The power rating and reliability of the device will not degrade with an operating temperature of +130°C.

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-001797	PCB-00183



ODX-00184

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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