

RADITEK, INC.

RDKF Isolators

2 Hole models: Microstrip isolators (6 to 36 GHz)

-For Circulators see RADC MS series over 6GHz

The RDKF series of isolators is designed to meet all of your Microstrip requirements. They can be optimized to your exact frequency needs. Standard dimensions include drop-in replacements for FDK and TDK (for example). All thin film isolator circuits are gold on copper, suitable for soldering (very easy with regular solder), (silver solder preferred), or gold thermo-compression bonding

General specifications: 2 hole models

Model	Frequency (GHz)	Maximum bandwidth available %	Max. Fwd power (W)	Available loads. Watts	Pad height mm X	Height max Y	Pad width mm	Equiv. to:
-51	6 to 13	10	10	1,6,10	1.65	5.5	0.43	FDK
-42	9-15	24	20	10,15, 20	1.65	5.5		FDK
-41	9-15	24	15	1, 3,5,10,15	1.65 1.40	5.5	0.45	FDK.
-41	14-17	20	15	1, 3,5,10,15 **	1.50 1.40	5.5	0.356	FDK
-41	17-20	20	15	1, 3,5,10,15	1.65 1.40	5.5 (4.2)	0.35	FDK (<opt).
-40	10-23	24	1,2	0.25, 0.5, 1	1.65	5.5		FDK
-40T	20-23	10	2	1	1.65	5.5		TDK
-39	9-15		5	1	1.65	5.0		Special
-31	17-31	8	5	1	1.50	3.8		FDK
-21	18-36	8	5	1,2	1.55	5.0	0.17	FDK
-11	32-36	10	5	1	1.14	4.5	0.14	

** 20W load can be fitted but will touch the top of the slot, special care with mounting screw

Operating Temp.	-40°C +70°C
Storage Temp.	-40°C +130°C

Direction of RF:	
R	→
L	←

ROHS Compliant

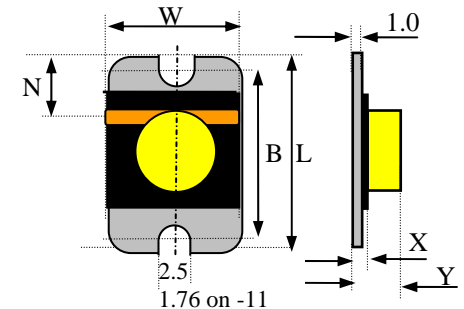
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Units: mm

Model	W	L	B	N
-51	9	19	14	7.5
-42	7	21.5	17.5	7
-41	7	19.5	15.5	6
-40	7	16	12	6
-40T	7.11	16	12	6
-39	7	13.2	12.4	4.5
-31	6	17.5	13.5	6.15
-21	5	16.5	12.5	6.1
-11	3.38	14.0	11.0	4.75



Radius:

- 0 opt 0.25 - 0.5 standard (default)
- 1 opt 1.0-1.5 (special)

Tolerance (w*h) + 0/- 0.04 mm, pad position +/- 0.1mm +/- 0.1 Holes/ slot centers

Specification may be subject to change
Do not heat above 130°C

Humidity 5-95% non-condensing

Max temperature during welding +350°C for 25msec

Extended Temperature range

- At 80 °C, add 0.1 dB to Insertion Loss, and subtract 1.0 dB from Isolation
- At 90 °C, add 0.3 dB to Insertion Loss, and subtract 4.0 dB from Isolation
- At 100 °C, add 0.4 dB to Insertion Loss, and subtract 5.0 dB from Isolation

Higher temperature parts with better specs e available

Ordering information: example RDKF-17.7-19.7-41-1WR (Isolator)

Use part # in format as: **RDKF-F_L-F_H-Model-Power_{rev} Direction**

F_L-Lower frequency-F_H Higher frequency, Model (40/41 etc),

Reverse (load) Power (ie 1Watt) Power direction {R= Clockwise, or left to right (default) or L= Counter clockwise.}-Option

	Freq.GHz	Insert Loss dB	Isol. dB	VSWR :1	%B W	code
-51	6.3-6.6	0.5	20	1.22	Full	-10 to 70C e 6-23-06
-51	6.3-6.6	0.5	20	1.25	Full	B 6-15-06
-51	6.8-7.05	0.4	20	1.25	Full	
-51	6.8-8.2	0.5	18	1.25	Full	
-51	6.9-8.1	0.6	18	1.3	Full	B 9-1-05

RDKF 2-Hole

Specifications may be subject to change

09/16/09

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RDKF Isolators / RDKC Circulators

4 Hole models: Microstrip isolators and circulators (1.7 to 14.5 GHz)
-recommend RADC MS51 series over 6GHz

The RDKF(C) series of isolators and circulators are designed to meet all of your Microstrip requirements. They can be optimized to your exact frequency needs. Standard dimensions include drop-in replacements for FDK and TDK (for example).

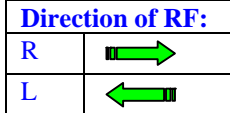
All thin film isolator circuits are gold on copper, suitable for soldering (very easy with regular solder, (silver solder preferred), or gold thermo-compression bonding

General specifications:

Model foot print	Frequency (GHz)	Max % bw available	Max. Fwd power (W)	Available loads. Watts	Tab height mm	Height Mm max	Pad width mm
-80	1.7-3.0	25	15	0.25,1,2,10	2.2	6.0	
-70/ 71	3.0- 6	17	10/25	0.25,1,2,10,15,20	2.2	6.0	1.0/0.8
-68	3.7-12		20	0.2W	2.2	6.5	
-65	3.7 - 5.8	14	25	20,25	1.85	6.0	
-64	9.1-9.5	10	30	30	2.2	6.1	
-63	9.5-10.5	10	25	20	1.635	5.5	
-61	4 - 9	18	20/50	0.25,2,8,10,15, 20	1.85	5.5	0.43
-43	9.0-16.0	10	15/25	1,2,10,12, 15, 20*	1.65	5.65	0.43
-49	14.0-14.5	10	12	2, 10, 12 Max	1.50	4.6	

-43 20W load sticks out 0.5mm at the base of the unit

Operating Temp.	-40°C +70°C
Storage Temp.	130°C Max



Ordering information: example RDKF-3.7-4.2-70-1WR (Isolator)

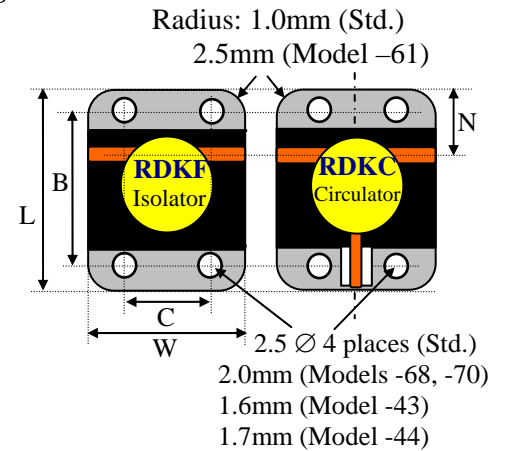
Use part # in format as: **RDKF-F_L-F_H-Model-Power_{rev} Direction**

F_L-Lower frequency-F_H Higher frequency, Model (70/61 etc),

Reverse (load) Power (ie 1Watt) Power direction {R= Clockwise, or left to right (**default**) or L= Counter clockwise.}-Option

Model foot print	Freq. GHz	Insert Loss dB	Isol. dB	VSWR	Pad width mm	Code	comments
-80	1.7-2.4	0.5	20	1.3	0.7		-30°C +70°C
-80	1.8-2.2	0.6	17	1.3	0.7		-30°C +70°C
-80	1.9-2.4	0.6	17	1.3	0.7	e	-30°C +70°C
-80	1.9-2.6	0.6	17	1.3	0.7	e	500M Bw,-30 to +70
-80	2.0-2.5	0.6	17	1.3	0.7		-30°C +70°C
-80	2.1-2.4	0.5	19	1.3	0.7	p	-30°C +70°C
-80	2.2-2.3	0.4	20	1.28	0.7	p	-30°C +70°C
-80	2.2-2.35	0.4	20	1.25	0.7	e	-30°C +65°C
-80	2.2-2.9	0.6	18	1.3			-10 to +50°C
-80	2.35-2.45	0.4	21	1.25	0.7	p	-30°C +70°C
-80	2.3-2.5	0.4	20	1.28	0.7	e	-30°C +70°C

ROHS Compliant
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Dimensions (Units: mm)					
	W	L	B	C	N
-80	20	30	25	15	10
-71	15	25	20	10	8
-70	15	25	20	10	9
-68	15	20	16	11	7.2
-65	12.7	24	19	7.7	9
64b	12.7	24	19.7	7.7	6.5
-63	9	19	14	6	7.5
-61	12.0	20	15	7	6.5
-43	10.2	17	14	7.4	7.0
-49	7.1	13.2	10.4	4.3	4.84

Tolerance (w*1*h) + 0/- 0.04 mm, pad position) +/- 0.1mm +/- 0.1 Holes/ slot centers

Specification may be subject to change
Do not heat above 130°C
 Humidity 5-95% non-condensing
 Max temperature during welding +350°C for 25msec

Extended Temperature range

At 80 °C, add 0.1 dB to Insertion Loss, and subtract 1.0 dB from Isolation
 At 90°C °C, add 0.3 dB to Insertion Loss, and subtract 4.0 dB from Isolation
 At 100°C °C, add 0.4 dB to Insertion Loss, and subtract 5.0 dB from Isolation
 Higher temperature parts with better specs are available

RDKF RDKC 4-Hole

Specifications may be subject to change

09/13/09

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