

**ROHS Compliant**

# RADITEK INC.

UMTS / PSC / DCS

RI, RC-TT-c-U Stripline Models

1600MHz-3.7GHz

Ultra low IMD <80 dBc

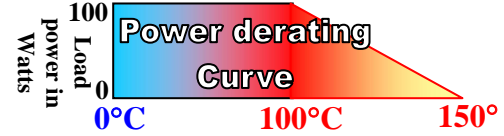
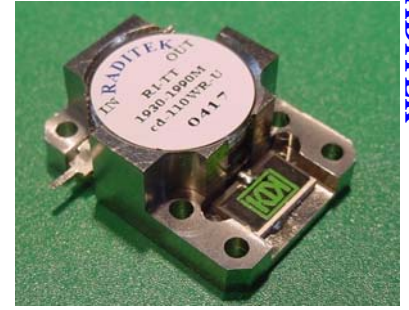
WCDMA

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Standard specification examples:

Frequency MHz (F1-F2)	Band	Ins. Loss dB	ISO. dB	Ret. Loss:	VSWR
1805-1880	DCS	0.29	22	21	1.19:1
1930-1990	PCS	0.29	22	21	1.19:1
2.1-2.17G*	UMTS	0.25	22	21	1.19:1

Direction of RF:	
R	default →
L	←



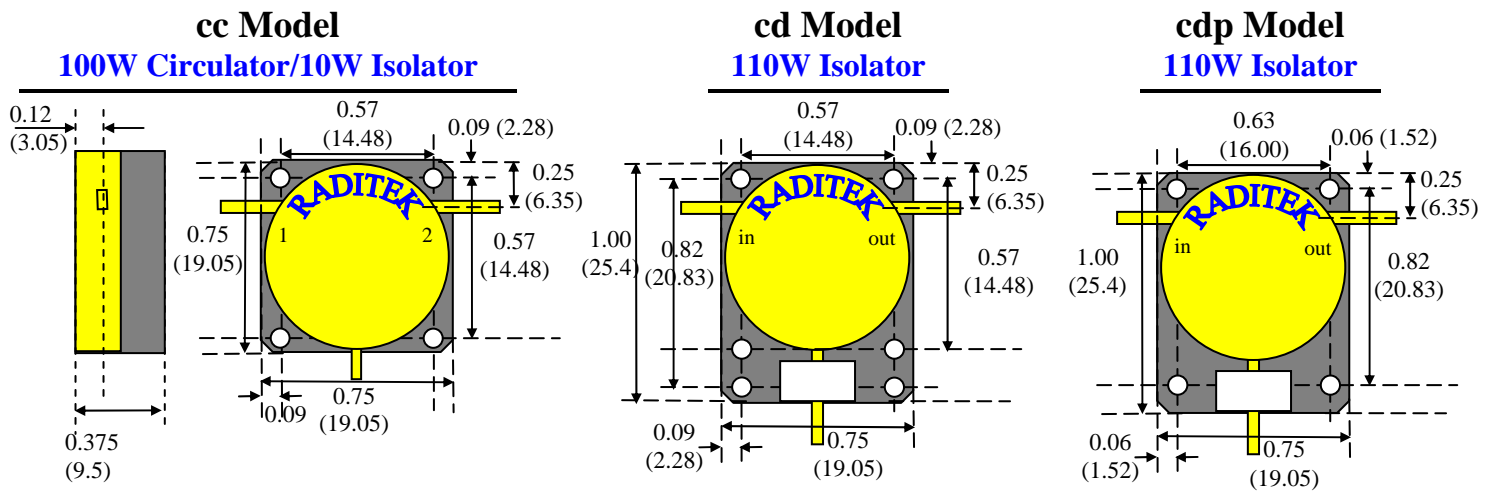
Steel Housing  
magnetically shielded

**Order Examples:**

- RC-TT-2.1-2.17-cc-100WR-U      100W Circulator version
- RI-TT-2.1-2.17-cd-110WR-U      110W Load version
- RI-TT-1930-1990M-cd-100WR-A20U      100W 20dB Attenuator version

shielded

This family was developed to meet the very best possible performance for IMD at the UMTS frequencies. IMD is so low it has to be measured on a filtered/diplexed test set.

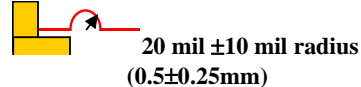


General specifications:		
Max. Fwd power:	150 Watts	Average
Max. Rev power (avg): (Load rating)	110 Watts (cd) 10W (cc)	Assumes infinite heat sink Load temp to be < 85°C
Peak Power handling	>2.5 KW Std	>5 KW Special
Operating temp.	-20°C to 85°C	-54°C to 110°C (storage)
Options:		
Attenuator type	-A20; -A30	20 dB or 30 dB
Ultra Low Intermodulation.	U	Optimized for best IMD for its size. Typ.: <80dBc, 2 x 30W tones, 10MHz apart.

Mounting holes are 0.104" (2.6mm) diameter.  
Monitor tab on load is ~0.15 (3.8mm) long.

Tolerance	.XX	.XXX
Inch	±0.02	±0.010
mm	±0.5	±0.25

Standard cc/cd strain relief: <1800 MHz



Machined surface: <sup>63</sup>√  
Housings are made from Steel  
Magnetically shielded,  
Nickel plated.

RI, RC-TT-c-U-models

Specifications may be subject to change

02/26/07

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Table 1 Designed and Tested For Ultra Low IMD

Freq. Hz		Insertion Loss dB Max.	Isolation Min. dB	Ret Loss dB	VSWR	@	
1900-1920M	*	0.29	21	18.5	1.21	-85dBc	-40 to 60C, wef 1-26-05
1920-1980M		0.30	23	20	1.25		
1930-1960M		0.25	21	21	1.19		
1930-1990M		0.29	21	21	1.19		
1930-1990M	*	0.25	23	21	1.19	-M	
1950-2050M		0.30	23	20	1.19		
2.07-2.21G	141M	0.35	21	19	1.25		
2.08-2.2G	130M	0.3	21	20	1.22	-10 to 80C	0.25/23/23/1.15 (typ)
2.09-2.19G		0.25	23	19	1.25		
2.1-2.2G		0.3	21	20	1.25		-40 to 80C
2.11-2.17G	*	0.25	22	21	1.20		
2.15-2.35G		0.35	18	18	1.30		
2.2-2.3G		0.30	24	23	1.15		

Table 2 Designed For Ultra Low IMD (Not Tested)

Freq. Hz		Insertion Loss dB Max.	Isolation Min. dB	Ret Loss dB	VSWR	@	
1805-1880M		0.29	22	21	1.19		
1830-1880M		0.3	21	21	1.20		
1840-1870M		0.29	22	21	1.19		
1850-1910M		0.40	20	20	1.25		
1850-1990M		0.40	20	19	1.25	-10 to 85C	0.3/23/1.25 @ RT
1850-2050M		0.50	18	18	1.30	-80 to 85C	
2.06-2.36		0.40	20	18	1.30		
2.2-2.4G		0.30	24	23	1.15		
2.3-2.7G		0.45	18	17.5			To develop
2.7-3.0		0.40	20	18	1.30		
3.35-3.65G	*	0.55	18	17.5			Spec confirmed 4-2-05
3.4-3.6G		0.35	19	18	1.30		
3.5-3.6G	*	0.35	19	18	1.30		Spec confirmed LCV 5-27-05, SO 5591 dc

**CE Option (Future)**

200W load

A20 20dB Attenuator, 200W

A30 30dB Attenuator, 200W

