

## RI, RC-TT-c-U Stripline Models, 1600MHz-3.7GHz

UMTS / PSC / DCS

**Ultra low IMD <80 dBc**

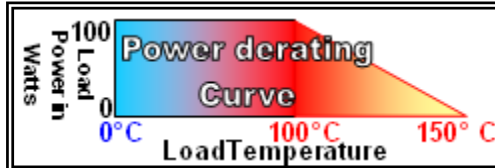
WCDMA

**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
2100-2170*	UMTS	0.25	22	21	1.19:1



Direction of RF:	
R	Default ▶
L	◀



Order Examples: **RC-TT-2.1-2.17-cc-100WR-U**  
**RI-TT-2.1-2.17-cd-110WR-U**  
**RI-TT-1930-1990M-cd-100WR-A20U**

**100W or 200W Circulator version**  
**110W Load version**  
**100W 20dB Attenuator version**

**I=ISOLATOR / C=CIRCULATOR**

**Steel Housing magnetically shielded**

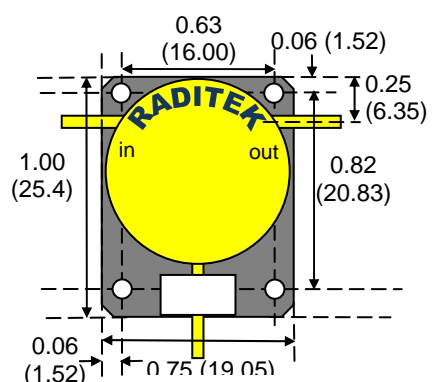
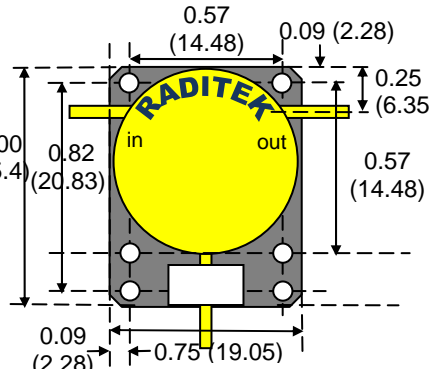
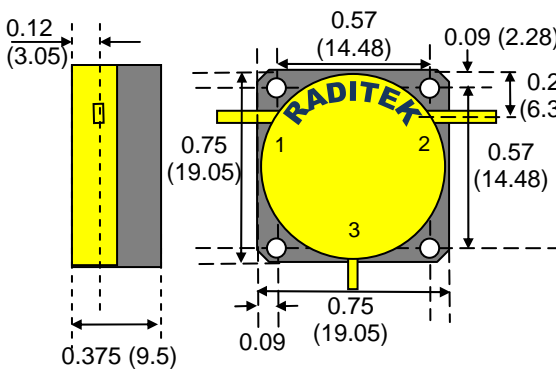
This family was developed to meet the very best possible performance for IMD at the UMTS frequencies. IMD is so low it has to be measured on a filtered / diplexed test set.

**This unit's performance is guaranteed to far exceed any competition! Other frequencies are available.**

**cc Model**  
100W or 200W Circulator/10W Isolator

**cd Model**  
110W Isolator

**cdp Model**  
110W Isolator



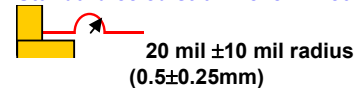
**General specifications:**

Max. Fwd power:	<b>150 Watts</b>	Average
Max. Rev power (avg): (Load rating)	<b>110 Watts (cd)</b> <b>10W (cc)</b>	Assumes infinite heat sink Load temp to be < 85°C
<b>Forward Peak Power</b>	<b>&gt;1 KW Std</b>	into a non short circuit load
<b>Operating temp.</b>	<b>-20°C to 85°C</b>	-54°C to 110°C (storage)
<b>Options:</b>		
Attenuator type	<b>-A20; -A30</b>	20 dB or 30 dB
Ultra Low Intermodulation.	<b>U</b>	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



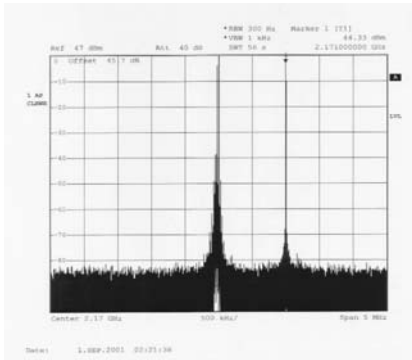
Machined surface: <sup>63</sup>√  
 Housings are made from Steel  
 Magnetically shielded,  
 Nickel plated.

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IMD 2 x 25W tones,  
1 MHz apart at 2.1GHz  
<10% BW

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	1.21:1	-85dBc	-40 to 60C, wef 1-26-05
1920-1980M		0.30	23	20	1.25:1		
1930-1960M		0.25	21	21	1.19:1		
1930-1990M		0.29	21	21	1.19:1		
1930-1990M	*	0.25	23	21	1.19:1	-M	
1950-2050M		0.30	23	20	1.19:1		
2.07-2.21G	141M	0.35	21	19	1.25:1		
2.08-2.2G	130M	0.3	21	20	1.22:1	-10 to 80C	0.25/23/23/1.15 (typ)
2.09-2.19G		0.25	23	19	1.25:1		
2.1-2.2G		0.3	21	20	1.25:1		-40 to 80C
2.11-2.17G	*	0.25	22	21	1.20:1		

Table 2 Designed For Ultra Low IMD (Not Tested)

Freq. Hz		Insertion Loss dB Max.	Isolation Min. dB	Return Loss dB	VSWR	@	
1215-1400M		0.5	20	19	1.25:1		tt-cc Circ only Not -U Model
1350-1525M		0.5	20	20	1.25:1		tt-cc Iso only not-U model, t4 model
1805-1880M		0.29	22	21	1.19:1		t4 model
1830-1880M		0.3	21	21	1.20:1		
1840-1870M		0.29	22	21	1.19:1		
1850-1910M		0.40	20	20	1.25:1		
1850-1990M		0.40	20	19	1.25:1	-10 to 85C	0.3/23/1.25 @ RT
1850-2050M		0.50	18	18	1.30:1	-80 to 85C	
2.06-2.36		0.40	20	18	1.30:1		
2.10-2.17		0.35	18	18	1.30:1		
2.15-2.35G		0.35	18	18	1.30:1		

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Freq. Hz		Insertion Loss dB Max.	Isolation Min. dB	Return Loss dB	VSWR	@	
2.2-2.3G		0.30	24	23	1.15		
2.2-2.4G		0.30	24	23	1.15:1		
2.2-2.5		0.35	24	23	1.15:1		
2.3-2.4		0.3	24	23	1.15:1		
2.3-2.5		0.3	23	21	1.19:1		
2.3-2.7		0.4	20	19	1.25:1		
2.4-2.5		0.3	24	23	1.15:1		
2.4-2.6		0.35	22	21	1.19:1		
2.4-2.75		0.4	20	19	1.25:1		
2.4-2.8		0.4	20	19	1.25:1		
2.5-2.7G		0.40	20	18	1.30:1		
2.6-2.9		0.45	19	20	1.25:1	0 to 55°C	
2.6-3.0		0.5	19	20	1.25:1	0 to 55°C	
2.7-2.9		0.45	19	20	1.25:1	0 to 55°C	
2.69-2.91		0.5	19	20	1.25:1	0 to 55°C	
2.7-3.0		0.50	16	16	1.38:1		7-21-11 at 85C dc
2.8-3.2		0.55	18	18	1.30:1	-40 to +85	Storage temp. -40 to +95
2.9-3.3		0.55	17	17	1.25:1	-20 to 85	std
2.9-3.5		0.35	21	21	1.19:1	-20 to 70	T4 model
3.1-3.4		0.4	20	20	1.25:1		
3.35-3.65G	*	0.55	18	17.5			Spec confirmed 4-2-05
3.4-3.6G		0.35	19	18	1.30:1		
3.5-3.6G	*	0.35	19	18	1.30:1		Spec confirmed LCV 5-27-05, SO 5591 dc

**CE Option (Future)**

 200W load  
 A20 20dB Attenuator, 200W  
 A30 30dB Attenuator, 200W
