RADITEK INC.

RoHS COMPLIANT

code -sj

RI, RC-TT-kd-U Stripline Models, 1700MHz-2.5GHz, 10%BW

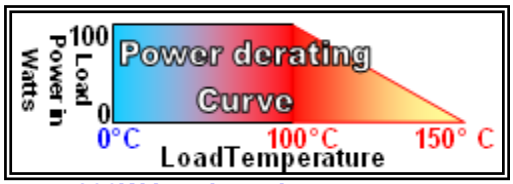
UMTS / PSC / DCS — **Ultra low IMD** — **WCDMA**

Standard specification examples:

Frequency MHz (F1-F2)	Band	Ins. Loss dB	ISO. dB	Ret. Loss:	VSWR
1805-1880	DCS	0.22	25	23	1.15:1
1930-1990	PCS	0.22	25	23	1.15:1
2100-2170*	UMTS	0.25	23	22	1.17:1

Ultra low IMD:
-85dBc target, -82dBc max
@ 2 x 44.5dBm two tones
(2x28W)

Direction of RF:	
R	Default ▶
L	◀



Mounting holes are 0.110" (2.79mm) diameter.
Tab Height 0.126" (3.2 mm),
Overall height <0.365" (9.27mm)
Flange thickness 0.05" (1.27mm)

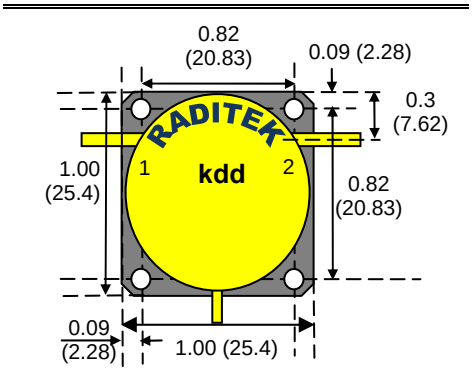
Order Examples: RI-TT-2.1-2.17-kdf-200WR-U — 200W Load version
RI-TT-2.1-2.17-kde-100WR-A20U — 100W 20dB Attenuator version
RC-TT-2.1-2.17-kdd-200WR — 200W circulator version

I=ISOLATOR / C=CIRCULATOR

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.

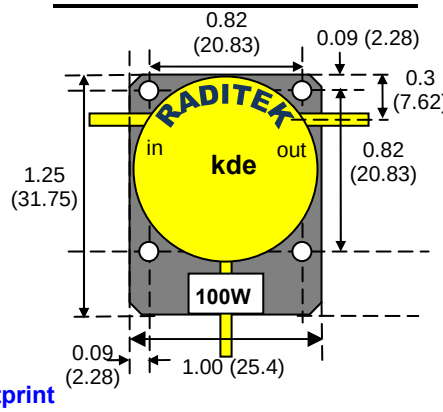
This unit's performance is guaranteed to far exceed any competition! Other frequencies are available.

kdd Model
200W Circulator

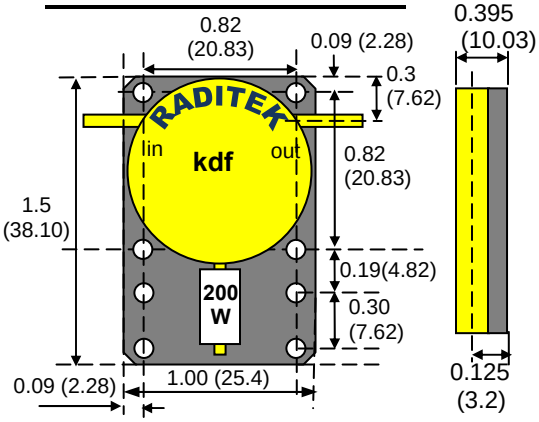


This model is a variant of the Kp1 in a de footprint

kde Model
110W Isolator



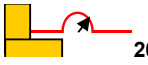
kdf Model
200W Isolator



General specifications:		
Max. Fwd power:	**250 Watts**	Average
Max. Rev power(avg): (Load rating)	**200 Watts** **100 /110 /200 Watts**	Assumes infinite heat sink Load temp to be < 85°C
Forward Peak Power	**>1 KW Std**	into a non short circuit load
Operating temp.	**-20°C to 85°C**	-54°C to 110°C (storage)
Options:		
Ultra Low Intermodulation.	U	Optimized for best IMD for its size. Typ.: <-80dBc, 2 x 30W tones, 10MHz apart.
Attenuator type	-A20; -A30	20 dB or 30 dB

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

Standard cc/cd strain relief: <1800 MHz



20 mil ±10 mil radius
(0.5±0.25mm)

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

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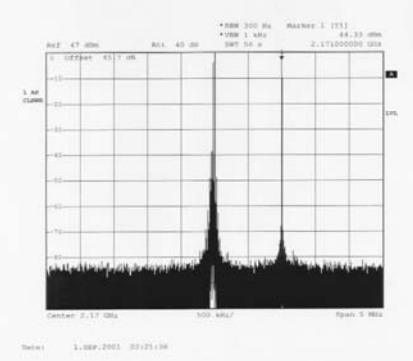
RI, RC-TT-kd-U Stripline Models, 1700MHz-2.5GHz, 10%BW

UMTS / PSC / DCS **Ultra low IMD** **WCDMA**



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

Circuit tab detail:

Unit	Length Left	Length Right	Width	Thickness
Inch	0.070	0.070	0.06	0.005
mm	1.78	1.78	1.5	0.13

Table 1 Designed and Tested For Ultra Low IMD

Freq. Hz	BW %	Insertion Loss dB Max.	Isolation Min. dB	Ret Loss dB	VSWR	Full band full temp range, unless specified	
1920-1980	3.1	0.25	23	21	1.19:1		
1920-2000		0.25	22	21	1.19:1		
1930-1990	3.1	0.22	25	23	1.15:1		**PCS optimized**
1930-2000	3.56	0.24	24	22	1.17:1		p
2070-2210	6.8	0.25	21	20.8	1.20:1	0 to 85 °C	
2090-2100	0.5	0.25	22	21	1.19:1		
2110-2170	3.3	0.25	23	22	1.17:1	**UMTS**	0.23/23/23 @ RT
2100-2200		0.25	22	21	1.19:1		

Table 2 Designed For Ultra Low IMD (Not Tested)

Freq. Hz		Insertion Loss dB Max.	Isolation Min. dB	Return Loss dB	VSWR	@	
1710-1785		.3	23	21	1.19:1		1710-1785
1715-1742		0.3	23	21	1.19:1		1715-1742
1785-1805		0.3	23	21	1.19:1		1785-1805
1805-1880	4.0	0.22	25	23	1.15:1	**DCS optimized**	1805-1880
1810-1837		0.3	23	21	1.19:1		1810-1837
1850-1910	3.2	0.3	23	21	1.19:1		1850-1910
1880-1920		0.3	23	21	1.19:1	p	1880-1920
2010-2025		0.3	23	21	1.19:1	p	2010-2025
2100-2300		0.4	19	19		*	2100-2300
2200-2300		0.25	22	21	1.19:1	Kdf	2200-2300
2270-2305		0.3	21	21	1.19	kdf	2270-2305
2300-2400		0.4	18	18		WCDMA kdd	2300-2400
2400-2500		0.4	18	18			2400-2500

***Spec to be confirmed on first build**

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