CELLULAR BASE STATION BANDS

FLANGE MOUNT DROP-IN CIRCULATOR 700MHZ TO 3000MHZ

PRODUCT DESCRIPTION

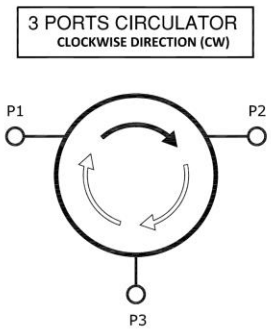
RFCI Drop-in Circulators designed for Wireless Cellular BST, RFID, and WiMAX applications in high performance linear power amplifiers and are specifically designed to have the excellent IMD Performance necessary for the stringent growing WCDMA and CDMA requirements

KEY FEATURES

- Standard drop-in package size.
- High 75dBc Intermodulation Distortion
- Robust Construction for High Reliability performance
- RoHS compliant
- Low typical Insertion loss, High Isolation
- Magnetically Shielded.

- Products available with alternative configuration such as attenuators, high power termination and reverse rotation direction.
- Special Tab is offset available.
- S-parameters are available upon request.

FUNCTION DIAGRAM



CIRCULATOR OUTLINE DRAWING

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Figure DC-06 (31.8mm Package Outline)

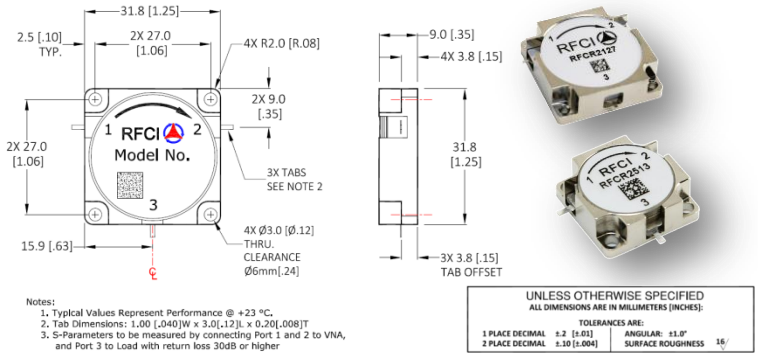
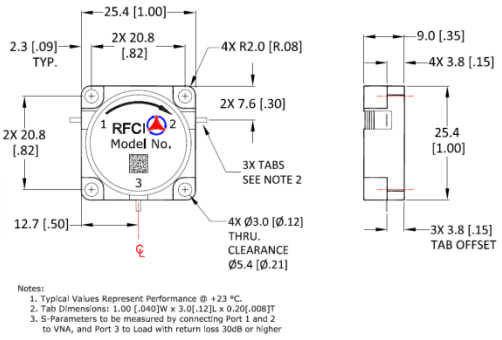


Figure DC-07 (25.4mm Package Outline)



STRAIGHT TABS, Low Intermodulation Distortion (IM3)

Frequency Range (MHz)		Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Fwd. PWR P/CW (W)	Rev PWR CW (W)	Operating Temperature	Package Outline	RFCI Part No.
Low	**High**	**Room/OT**	**Room/OT**	**Room/OT**	**Max.**	**Max.**	**(ºC)**	**(mm)**	
728	**821**	0.30/0.40	23/20	23/20	1000/200	200	-40 to +85°C	DC-06	**RFCR2136**
728	**756**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-06	**RFCR2135**
791	**821**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-06	**RFCR2137**
806	**870**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-06	**RFCR2215**
830	**890**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-06	**RFCR2216**
728	**756**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2139**
773	**803**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2155**
791	**821**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2140**
806	**870**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2213**
830	**890**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2219**
860	**960**	0.25/0.30	23/20	23/20	1000/200	200	-40 to +85°C	DC-07	**RFCR2222**
869	**894**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2220**
885	**920**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2221**
900	**930**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2329**
920	**960**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2330**
1710	**1880**	0.20/0.30	23/21	23/21	1000/200	200	-40 to +85°C	DC-07	**RFCR2410**
1710	**1785**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2406**
1805	**1880**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2511**
1880	**1930**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2612**
1920	**2170**	0.20/0.35	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2615**
1930	**1995**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2613**
2090	**2190**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2710**
2130	**2280**	0.20/0.30	25/22	25/22	1000/200	200	-40 to +85°C	DC-07	**RFCR2720**

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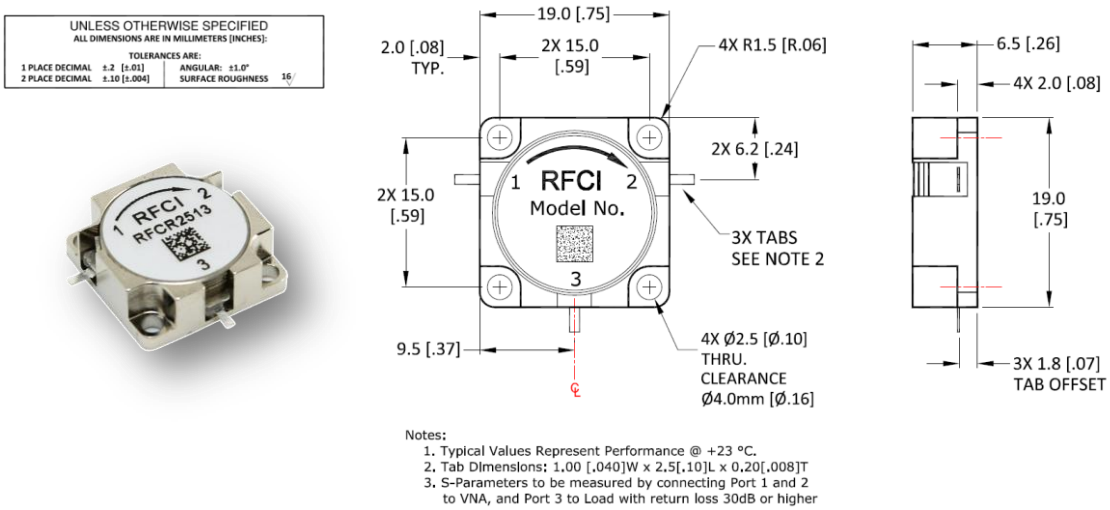
Figure DC-09 **(19mm Package Outline-C' Bore Mounting Holes)**



Circulator-19mm Package with C' Bore Mounting Holes

Frequency Range (MHz)		Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Fwd. PWR P/CW (W)	Rev PWR CW (W)	Operating Temperature	Package Outline	RFCI Part No.
Low	**High**	**Room/OT**	**Room/OT**	**Room/OT**	**Max.**	**Max.**	**(ºC)**		
1600	**1650**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2411**
1710	**1785**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2412**
1805	**1990**	0.25/0.35	23/20	23/20	1000/100	100	-40 to +85°C	DC-09	**RFCR2514**
1805	**1880**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2513**
1880	**1930**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2515**
1920	**2125**	0.25/0.35	23/20	23/20	1000/100	100	-40 to +85°C	DC-09	**RFCR2616**
1930	**1995**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2617**
2000	**2300**	0.30/0.50	23/20	23/20	1000/200	100	-40 to +85°C	DC-09	**RFCR2733**
2010	**2090**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2722**
2024	**2286**	0.25/0.35	23/20	23/20	1000/100	100	-40 to +85°C	DC-09	**RFCR2723**
2090	**2190**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2724**
2130	**2280**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2725**
2200	**2300**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2847**
2250	**2650**	0.25/0.35	23/20	23/20	1000/100	100	-40 to +85°C	DC-09	**RFCR2848**
2300	**2700**	0.25/0.35	23/20	23/20	1000/100	100	-40 to +85°C	DC-09	**RFCR2850**
2300	**2500**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2849**
2470	**2730**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2851**
2490	**2690**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2852**
2500	**2700**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2853**
2620	**2690**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-09	**RFCR2854**

Standard Part Number is Clockwise (CW) Rotation. Add letter "R" at the end to Part number for a Counter Clockwise (CCW) Rotation

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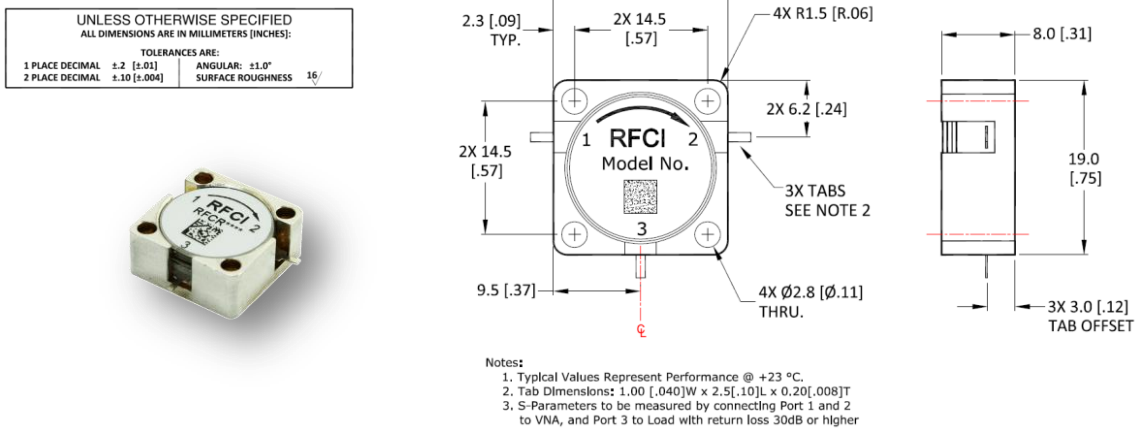
Figure DC-10 **(19mm 'D' Thick Package Outline)**



Circulator, Low Intermodulation Distortion (IM3)-19mm Package

Frequency Range (MHz)		Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Fwd. PWR P/CW (W)	Rev PWR CW (W)	Operating Temperature	Package Outline	RFCI Part No.
Low	**High**	**Room/OT**	**Room/OT**	**Room/OT**	**Max.**	**Max.**	**(ºC)**		
1600	**1650**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2411D**
1710	**1785**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2412D**
1805	**1990**	0.25/0.35	23/20	23/20	1000/100	100	-40 to +85°C	DC-10	**RFCR2514D**
1805	**1880**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2513D**
1880	**1930**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2515D**
1920	**2125**	0.25/0.35	23/20	23/20	1000/100	100	-40 to +85°C	DC-10	**RFCR2616D**
1930	**1995**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2617D**
2000	**2300**	0.30/0.50	23/20	23/20	1000/200	100	-40 to +85°C	DC-10	**RFCR2733D**
2010	**2090**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2722D**
2024	**2286**	0.25/0.35	23/20	23/20	1000/100	100	-40 to +85°C	DC-10	**RFCR2723D**
2090	**2190**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2724D**
2130	**2280**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2725D**
2200	**2300**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2847D**
2250	**2650**	0.25/0.35	23/20	23/20	1000/100	100	-40 to +85°C	DC-10	**RFCR2848D**
2300	**2700**	0.25/0.35	23/20	23/20	1000/100	100	-40 to +85°C	DC-10	**RFCR2850D**
2300	**2500**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2849D**
2470	**2730**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2851D**
2490	**2690**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2852D**
2500	**2700**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2853D**
2620	**2690**	0.20/0.30	25/22	25/22	1000/100	100	-40 to +85°C	DC-10	**RFCR2854D**

- S-Parameters to be measured by connecting Port 1 and Port 2 to VNA and Port 3 to Load with load return loss 30dB or higher.

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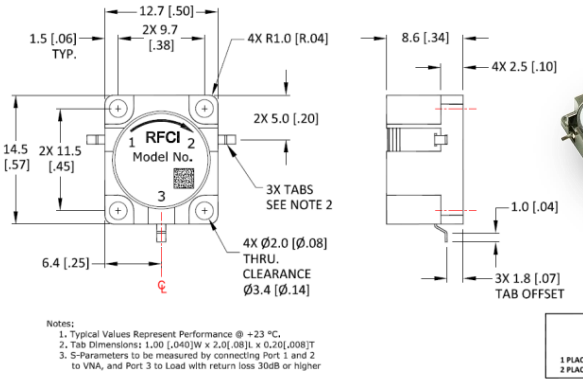
Figure DC-11
(12.7mm Package Outline-C' Bore Mounting Holes)



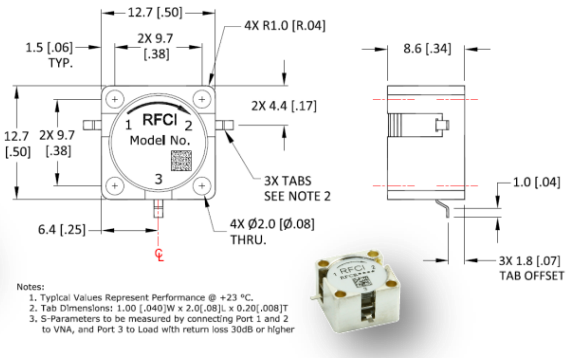


Figure DC-12
(12.7mm 'D' Package Outline)

Circulator-12.7mm Package

Frequency Range (MHz)		Insertion Loss (dB)	Isolation (dB)	Return Loss (dB)	Fwd. PWR P/CW (W)	Rev PWR CW (W)	Operating Temperature	Package Outline	RFCI Part No.
Low	**High**	**Room/OT**	**Room/OT**	**Room/OT**	**Max.**	**Max.**	**(ºC)**		
2110	**2170**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-11	**RFCR2734**
2130	**2280**	0.35/0.40	21/19	21/19	500/50	50	-40 to +85°C	DC-11	**RFCR2735**
2300	**2400**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-11	**RFCR2893**
2320	**2370**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-11	**RFCR2864**
2365	**2435**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-11	**RFCR2865**
2400	**2500**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-11	**RFCR2866**
2470	**2730**	0.35/0.40	21/19	21/19	500/50	50	-40 to +85°C	DC-11	**RFCR2894**
2550	**2650**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-11	**RFCR2890**
2620	**2690**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-11	**RFCR2891**
2110	**2170**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-12	**RFCR2734D**
2130	**2280**	0.35/0.40	21/19	21/19	500/50	50	-40 to +85°C	DC-12	**RFCR2735D**
2300	**2400**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-12	**RFCR2893D**
2320	**2370**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-12	**RFCR2864D**
2365	**2435**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-12	**RFCR2865D**
2400	**2500**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-12	**RFCR2866D**
2470	**2730**	0.35/0.40	21/19	21/19	500/50	50	-40 to +85°C	DC-12	**RFCR2894D**
2550	**2650**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-12	**RFCR2890D**
2620	**2690**	0.25/0.35	22/20	22/20	500/50	50	-40 to +85°C	DC-12	**RFCR2891D**

Standard Part Number is Clockwise (CW) Rotation. Add letter "R" at the end to Part number for a Counter Clockwise (CCW) Rotation

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