

RCX Partial Wraparound

Data Sheet | ver. C 1/2019

0302PW 0402PW 0502PW 0603PW 0805PW

Partial Wraparound Thick Film Chip Resistors for High Frequency Applications

ULR

RoHS

Sn62

NON-MAG

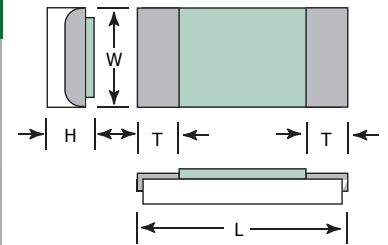
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FEATURES

- Stable resistance over frequency
- 96% Al_2O_3 substrate material
- Tolerances to $\pm 1\%$
- Resistance values from 10Ω to $2\text{K}\Omega^1$
- TCR to $\pm 100\text{PPM}/^\circ\text{C}$
- Operating Temp. -55 to 150°C

1. Other values available. Please contact factory.

Part	Length	Width	Height (max)	Terminal (min)	WVDC (max)	Rated Power @ 70°C	Tolerance (%)	Frequency Range ²
RCX-0302PW	$0.030 \pm .005$	$0.020 \pm .003$	0.020	0.004	50	63 mW	5	$\leq 40\text{ GHz}$
RCX-0402PW	$0.040 \pm .005$	$0.020 \pm .005$	0.020	0.005	50	80 mW	1, 2, 5	$\leq 36\text{ GHz}$
RCX-0502PW	$0.050 \pm .005$	$0.020 \pm .005$	0.020	0.009	50	100 mW	1, 2, 5	$\leq 26.5\text{ GHz}$
RCX-0603PW	$0.060 \pm .005$	$0.030 \pm .005$	0.020	0.009	50	100 mW	1, 2, 5	$\leq 15\text{ GHz}$
RCX-0805PW	$0.080 \pm .005$	$0.050 \pm .005$	0.020	0.009	150	175 mW	1, 2, 5	$\leq 8\text{ GHz}$



2. Frequency range in an impedance matched system. Modelithics simulated part (RC3 - 0402 & RC4 - 0302)

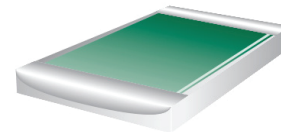
TERMINATIONS

Terminal Metallizations

Base Metal	No Solder Applied (PN Prefix)	Sn62 Solder Coat (PN Prefix)	Sn96 Solder Coat (PN Prefix)
Platinum Silver (PtAg)	RC3- ✓	RCC-	RCP- ✓
ULR Platinum Silver (PtAg)	RC8- ✓	RCH-	RCR- ✓
Platinum Gold (PtAu)	RC4- ✓	RCD-	RCQ- ✓

RoHS Compliant = ✓

Terminal Styles



PW - Partial Wraparound

ORDERING INFORMATION

Example: 100Ω, 5%, 100mW, 0502 partial wrap resistor

Termination Material	Part	Resistance Value	Tolerance
✓ -3 PtAg	RC3	0502PW	1000 J
✓ -4 PtAu ³			
✓ -8 PtAg ULR			
-C PtAg w/ Sn62 Solder			
-D PtAu w/ Sn62 Solder ³			
-H PtAg w/ Sn62 Solder ULR			
✓ -P PtAg w/ Sn96 Solder			
✓ -Q PtAu w/ Sn96 Solder ³			
✓ -R PtAg w/ Sn96 Solder ULR			

Resistance Value

The first three digits are significant values. The fourth is the number of zeroes following. The R indicates a decimal point when resistance value is less than 100Ω. For jumper use code JUMPR.

Part

0302PW	0502PW	0805PW
0402PW	0603PW	

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Packaging: B=Bulk, T=Tape and Reel

RoHS Compliant = ✓

ULR = Ultra Leach Resistant

ULR

RoHS

Sn62

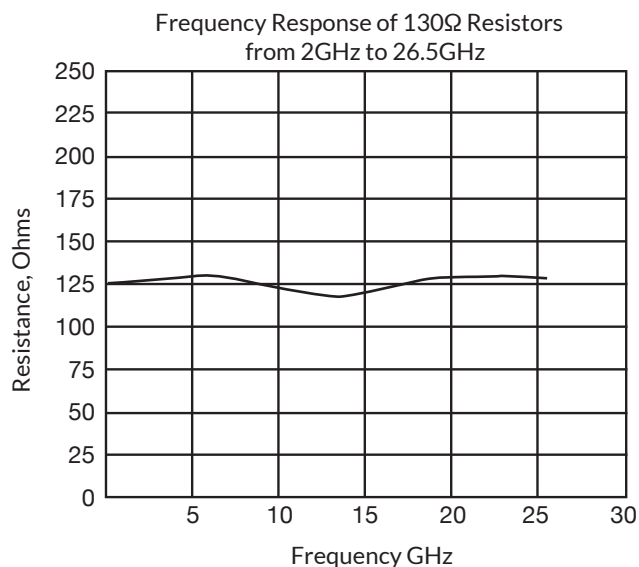
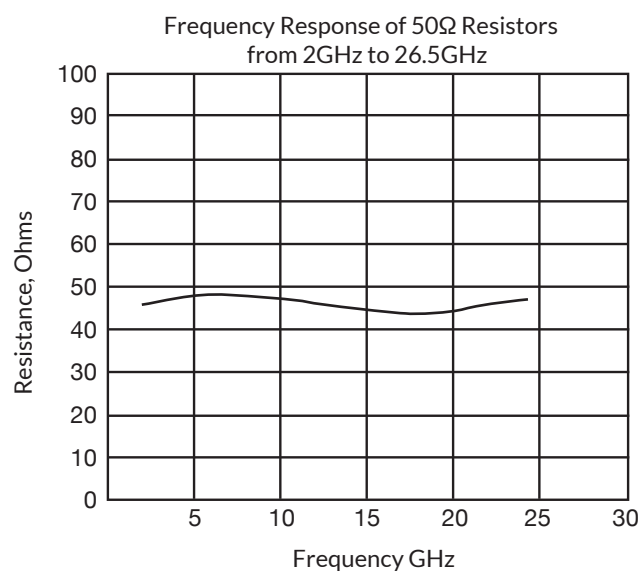
NON-MAG

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3. Applies to 0302 only

Modelithics simulated part (RC3 - 0402 & RC4 - 0302)

FREQUENCY RESPONSE



Two frequency response curves of the RCC-0502PW are shown here to illustrate the flatness of the response of IMS' RCX Partial Wrap resistors. S-Parameters of all RCX PW sizes can be found on the IMS website. Measurements were taken of 50 Ω and 130 Ω resistors within a span of 2GHz to 26.5GHz.

The response does not change appreciably at different resistance values. Similar response can be expected from other size resistors within the RCX PW Series and within the resistance range for the respective size.