

# Dual Resonance Capacitor - DRC



## Dual Attenuations

### GENERAL DESCRIPTION

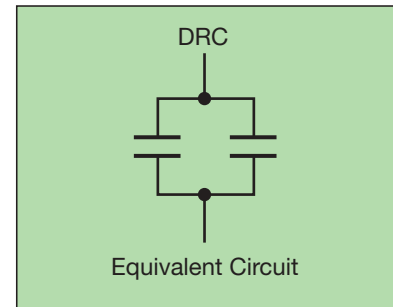
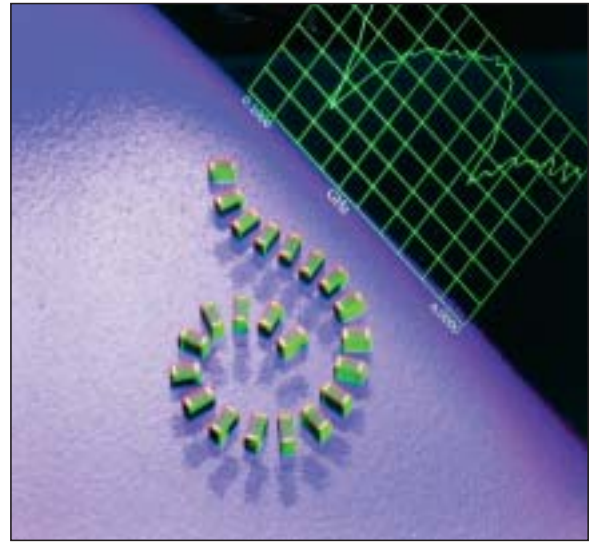
The AVX Dual Resonance Capacitor (DRC) is a capacitor with two Self Resonant Frequencies as illustrated overleaf. The attenuation of the first resonance point will meet  $-25\text{dB}$  and attenuation of the second will meet  $-15\text{dB}$ .

This device is ideal for EMI filtering in dual band cellular applications where two frequencies must be filtered. The DRC can also be used in other equipment found close to or in conjunction with a high frequency transmission source. Examples of such equipment are office headsets, computers and GSM modules found in vending machines, automotive applications and remote monitoring.

The range of frequencies offered renders the AVX DRC suitable for use in the following systems: Tetra; GSM; DCS1800; PCS and DECT.

The AVX DRC replaces the traditional two-capacitor solution, which translates into significant savings in board space and a reduction in component count.

The AVX DRC is available in EIA standard sizes of 0603 and 0805.



### HOW TO ORDER

<b>W</b>	<b>1</b>	<b>D</b>	<b>1</b>	<b>5</b>	<b>A</b>	<b>2</b>	<b>4</b>	<b>0</b>	<b>A</b>
IPC	1=0603 2=0805	D=DRC	Number of Elements	Voltage 50V	Dielectric NPO	First Resonance	Second Resonance	Third Resonance	Std.

#### Key to Codes

0 = None	5 = 2000MHz
1 = 0400MHz	6 = 1900MHz
2 = 0880MHz	7 = 2200MHz
4 = 1800MHz	8 = 2400MHz

All parts packaged on 7" reels (paper tape). Package quantity: 4000 per reel. Termination is plated Ni and Tin.

### STANDARD DRC COMBINATIONS AVAILABLE

0400 MHz /0900 MHz	0880 MHz/2000 MHz
0880 MHz/1800 MHz	0880 MHz/2200 MHz
0880 MHz/1900 MHz	1800 MHz/2400 MHz

In addition AVX's design flexibility enables customers to specify their frequency requirements if different to our standard availability. These will be reviewed individually.

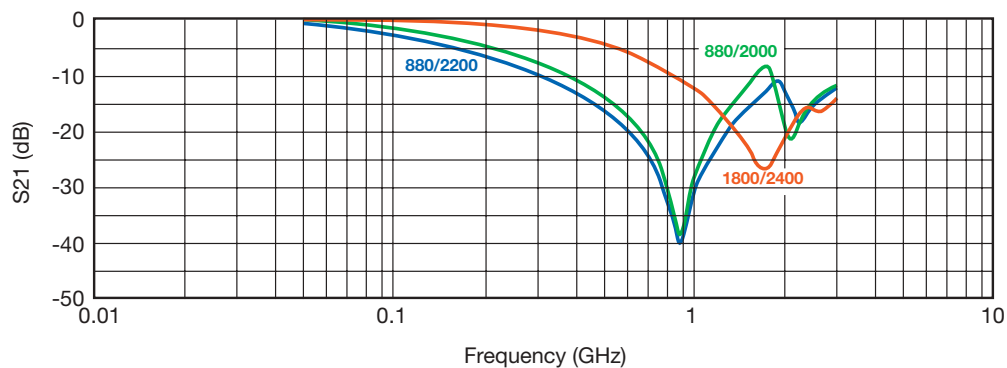
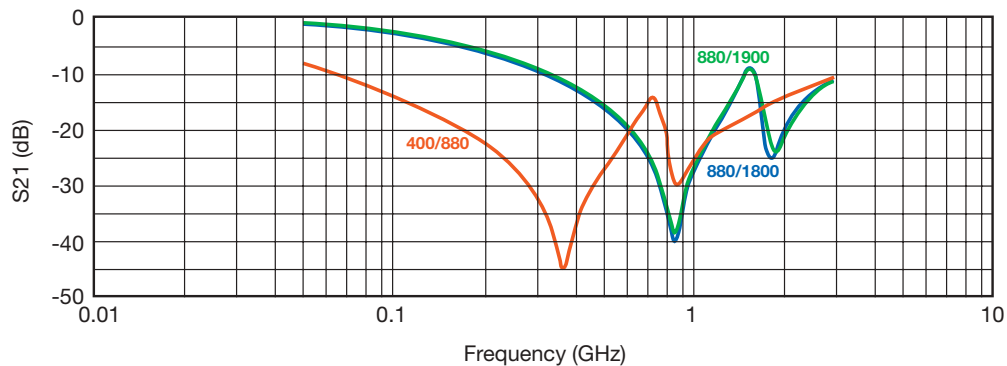


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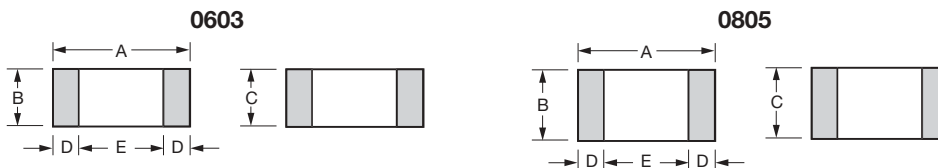


## Dual Attenuations

### 0603 DRC INSERTION LOSS COMPARISON



### DIMENSIONS: inches (millimeters)



Size	A	B	C	D	E
0603	0.063±0.006 (1.60±0.15)	0.081±0.015 (0.032±0.006)	0.035 (0.89) max	0.014±0.006 (0.35±0.15)	0.020 (0.51) min
0805	0.079±0.008 (2.01±0.20)	0.049±0.008 (1.25±0.20)	0.052 (1.32) max	0.020±0.010 (0.51±0.25)	0.020 (0.51) min

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