

Window Characteristics^a

Window (length N)	Main Lobe Width	Side-lobe Level (dB)	Transition Bandwidth	Passband Ripple (dB)	Stopband Attenuation (dB)
rectangular	$4\pi/N$	-13.5	$1.8\pi/N$	0.75	21
Bartlett	$8\pi/N$	-27	$6.1\pi/N$	0.45	25
von Hann	$8\pi/N$	-32	$6.2\pi/N$	0.055	44
Hamming	$8\pi/N$	-43	$6.6\pi/N$	0.019	53
Blackman	$12\pi/N$	-57	$11\pi/N$	0.0017	74
Kaiser, $\alpha = 4$	$6.8\pi/N$	-30	$5.2\pi/N$	0.049	45
Kaiser, $\alpha = 8$	$10.8\pi/N$	-58	$10.2\pi/N$	0.00077	81
Kaiser, $\alpha = 12$	$16\pi/N$	-90	$15.4\pi/N$	0.000011	118
Dolph, $\alpha = -40$	$7.4\pi/N$	-40	NA	NA	NA
Dolph, $\alpha = -60$	$10.1\pi/N$	-60	NA	NA	NA
Dolph, $\alpha = -80$	$13.2\pi/N$	-80	NA	NA	NA