

dB Calculator for A47 Series Type Attenuators

Input values Output values

How to Use this Calculator

This calculator is made for calculating the resistor values for the A4 47 positions series type attenuators according to the desired dB attenuation values. Below diagram represents the circuitry and shows the input and GND connector as well as the 46 resistors of the series type attenuator. In order to determine the resistor values following input values are required;

- #1 - Input impedance [Ohms]
 - #2 - Attenuation starting value (at switch pos. 2)
 - #3 - Step values (attenuation values will be resulting). Make sure the attenuation value of position 47 becomes 0 dB.
- The target resistor values and E96 coices are calculated and the corresponding attenuation and step values based on E96 are re-calculated.



0 Referenzpegel		83 dB SPL	Res [Ohms]	PRP Kit	Res#	Pos.	dB values [dB]	
							Attn.	Step
Input	Most right (cw)		10.874,91	10.700,00	R46	47	0,00	1,00
		82 dB SPL			R45	46	-1,00	1,00
		81 dB SPL	9.692,27	9.310,00	R44	45	-2,00	1,00
		80 dB SPL	8.638,25	8.060,00	R43	44	-3,00	1,00
		79 dB SPL	7.698,84	7.150,00	R42	43	-4,00	1,00
		78 dB SPL	6.861,60	6.490,00	R41	42	-5,00	1,00
			6.115,41	6.490,00	R40	41	-6,00	1,00
	K-14	77 dB SPL	5.450,36	5.490,00	R39	40	-7,00	1,00
		76 dB SPL	4.857,64	4.870,00	R38	39	-8,00	1,00
		75 dB SPL	4.329,38	4.220,00	R37	38	-9,00	1,00
		74 dB SPL	3.858,56	3.740,00	R36	37	-10,00	1,00
		73 dB SPL	3.438,95	3.320,00	R35	36	-11,00	1,00
		72 dB SPL	3.064,96	2.870,00	R34	35	-12,00	1,00
		71 dB SPL	2.731,65	2.870,00	R33	34	-13,00	1,00
		70 dB SPL	2.434,59	2.490,00	R32	33	-14,00	1,00
		69 dB SPL	2.169,83	2.150,00	R31	32	-15,00	1,00
		68 dB SPL	1.933,86	1.870,00	R30	31	-16,00	1,00
		67 dB SPL	1.723,56	1.620,00	R29	30	-17,00	1,00
		66 dB SPL	1.536,12	1.430,00	R28	29	-18,00	1,00
		65 dB SPL	1.369,07	1.430,00	R27	28	-19,00	1,00
		64 dB SPL	1.220,18	1.240,00	R26	27	-20,00	1,00
		63 dB SPL	1.087,49	1.100,00	R25	26	-21,00	1,00
		62 dB SPL	969,23	976,00	R24	25	-22,00	1,00
		61 dB SPL	863,82	845,00	R23	24	-23,00	2,00
	2 dB Rasterung	60 dB SPL	1.456,04	1.430,00	R22	23	-25,00	2,00
		58 dB SPL	1.156,58	1.100,00	R21	22	-27,00	2,00
		56 dB SPL	918,70	976,00	R20	21	-29,00	2,00
		54 dB SPL	729,75	750,00	R19	20	-31,00	2,00
		52 dB SPL	579,66	590,00	R18	19	-33,00	2,00
		50 dB SPL	460,44	464,00	R17	18	-35,00	2,00
		48 dB SPL	365,74	365,00	R16	17	-37,00	2,00
		46 dB SPL	290,52	287,00	R15	16	-39,00	2,00
		44 dB SPL	230,77	226,00	R14	15	-41,00	2,00
		42 dB SPL	183,31	178,00	R13	14	-43,00	2,00
		40 dB SPL	145,60	143,00	R12	13	-45,00	2,00
		38 dB SPL	115,66	113,00	R11	12	-47,00	2,00
		36 dB SPL	91,87	88,70	R10	11	-49,00	2,00
		34 dB SPL	72,98	69,80	R9	10	-51,00	2,00
		32 dB SPL	57,97	56,20	R8	9	-53,00	2,00
		30 dB SPL	46,04	44,20	R7	8	-55,00	3,00
		28 dB SPL	51,94	49,90	R6	7	-58,00	4,00
		25 dB SPL	46,46	44,20	R5	6	-62,00	4,00
		21 dB SPL	29,31	28,00	R4	5	-66,00	3,00
		17 dB SPL	14,64	14,00	R3	4	-69,00	2,00
		12 dB SPL	7,30	11,00	R2	3	-71,00	1,00
		11 dB SPL	3,06	11,00	R1	2	-72,00	
GND	Most left (ccw)	0 dB SPL	25,12	22,10		1	-Infinite	
	Sum:		100.000,00	97.792,10				