

Pa0nhc 63dB attenuator PARTSlist. 20180730

	Resistor Value [Ohm]	Conrad OrderNr	Resulting parallel value [Ohm]	Target parallel value [Ohm]
R3 R4	120 33	1584983 1584951	25.88	25.97
R5,9,13,17,21,25 R6,10,14,18,22,26	357 39	1383964 1584954	35.16	35.14
R7,11,15,19,23 R8,12,16,20,24	220 68	1583659 1583954	51,94	51.94
R27 R28	300 39	1585005 1584954	34.51	34.52
R29 R30	2k61 150	1583719 1583960	141.85	141.93
R31 R32	20 15	1583647 1584934	8.57	8.55

		Conrad OrderNR
M3 distance bolt 10mm long	2x (two M3 holes) 2x (one M3 hole + one M3 thread end)	526517 526630
M3 screw 5mm long	4x	
BNC chassis bus 15.9mm long	2x (Only the short type will fit)	740764

Checking its performance using an SDR receiver (Airspy HF+) :

Set "Radio" to NFM 8 kHz.

Set "FFT display" resolution to 4096.

Set "Source" Bandwidth to 96 kHz.

Set HF agc to OFF

Set HF preamp to OFF.

Set Attenuator to -48dB.

Connect a 0dBm generator.

Notice the signal strength value1. It should be around -10dBfs.

Insert the attenuator under test.

Notice the signal strength value2.

Attenuation = value1 – value2. It should be 63 +/- 0.1 dB.

Correction :

If the attenuation is less than 63dB, solder a resistor (100R to 1k) in parallel to R14.

If the attenuation is more than 63dB, solder a resistor (100R to 1k) in parallel to R15.