



Portabelantenner

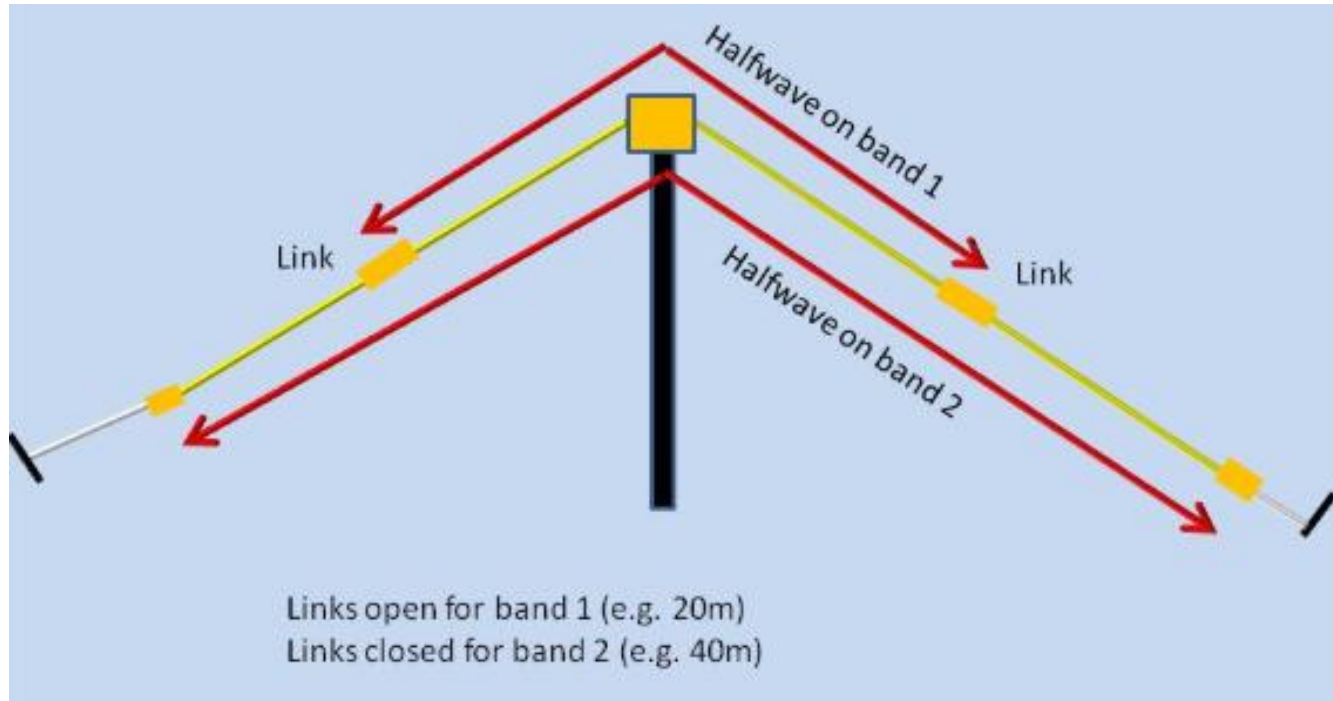
LB0DI Dag Vidar og LB8IH Fredrik



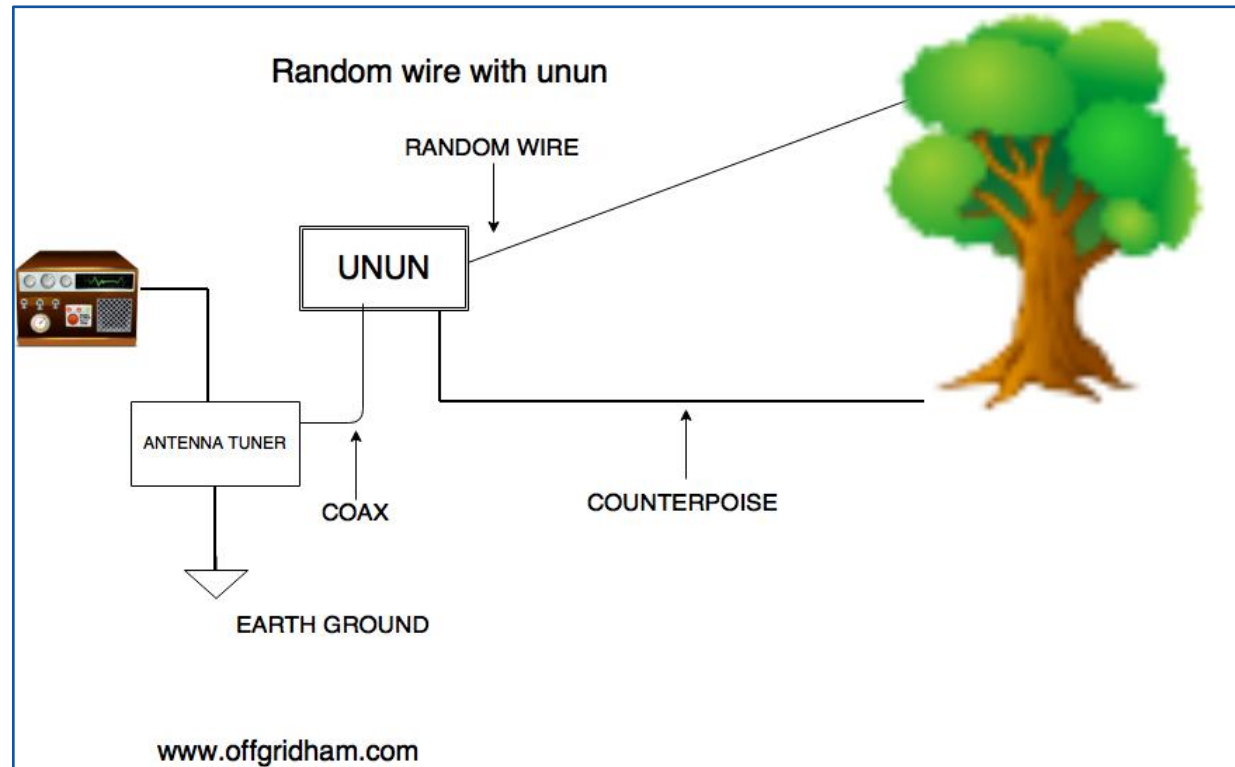
Bicycle Mobile



Di-pol



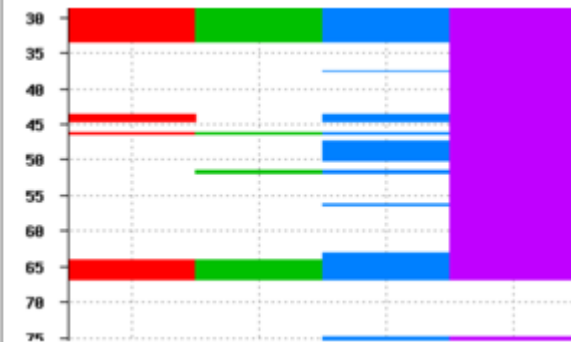
Random wire (1)



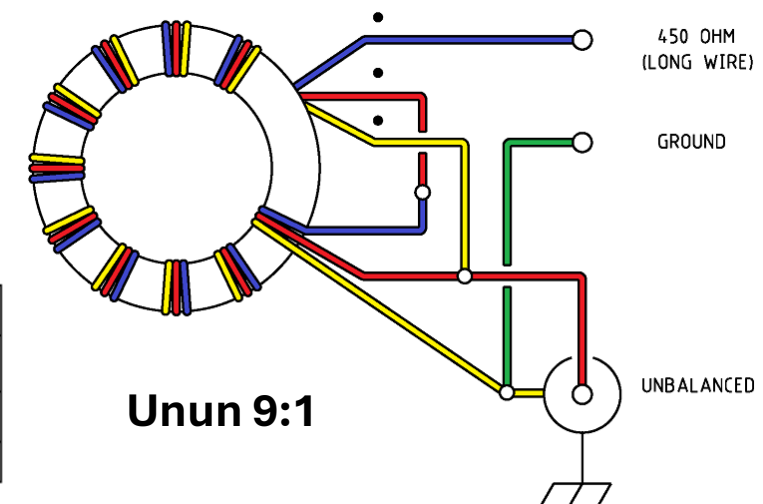
«K4MTX Random Length Wire Antenna» (Google-søk)

Group	USA Bands
a	40-30-20-15
b	40-30-20-17
c	40-30-20-17-15-12-10
d	80-40-30-20-17-15-12-10
e	160-80-40-30-20-17-15-12-10
f	160-80-60-40-30-20-17-15-12-10-6

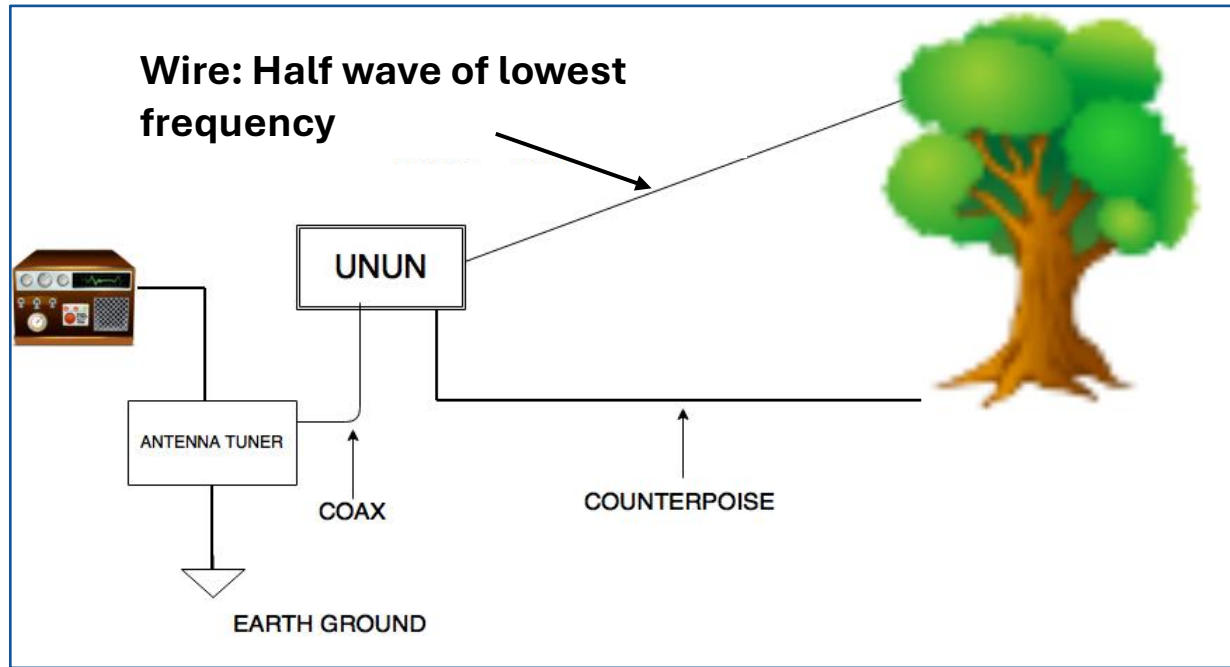
Unngå fargede felt – bruk hvite områder:



Longwire antenna lengths		http://www.hamuniverse.com/randomwireantennalengths.html											
Feet:	29,0	35,5	41,0	58,0	71,0	84,0	107,0	119,0	148,0	203,0	347,0	407,0	423,0
Meter:	8,84	10,82	12,50	17,68	21,64	25,60	32,61	36,27	45,11	61,87	105,77	124,05	128,93
Counterpoise [m]:		7,69	7,69	7,69	14,93	14,93	14,93		29,98	29,98			
		10 40 m			10 - 80 m				10 - 160 m				



Endfed half-wave – EFHW (1)



En endematet halvbølge har høy impedans i matepunktet, typisk 2500-3000 ohm.
For å tilpasse til 50 ohm benytter vi en 49:1 transformator.

UNUN:

49:1 Transformer

Primary 2 Turns.
Secondary 14 turns (Total turns)

To End Fed Half Wave Antenna.

Parts List

Toroid Core:

Mouser Part #623-5943003801
240-43 Use min. of 2 cores.

Higher Efficiency use 52 mix - Mouser
623-5952003801 Requires 3 cores

Capacitor:

100 pf
5 kv minimum

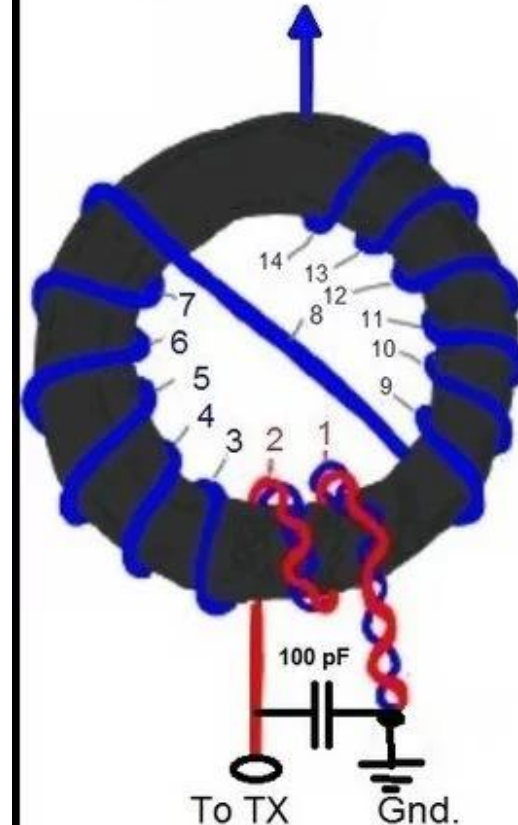
Antenna:

80m - 10m use a 134' wire.
40m - 10m use a 67' wire, etc.

Wire:

12 gauge enameled wire.**

** When using 3 toroid cores start with a Primary wire of ~13" and Secondary of ~80" long. 1 & 2 cores will use less wire.



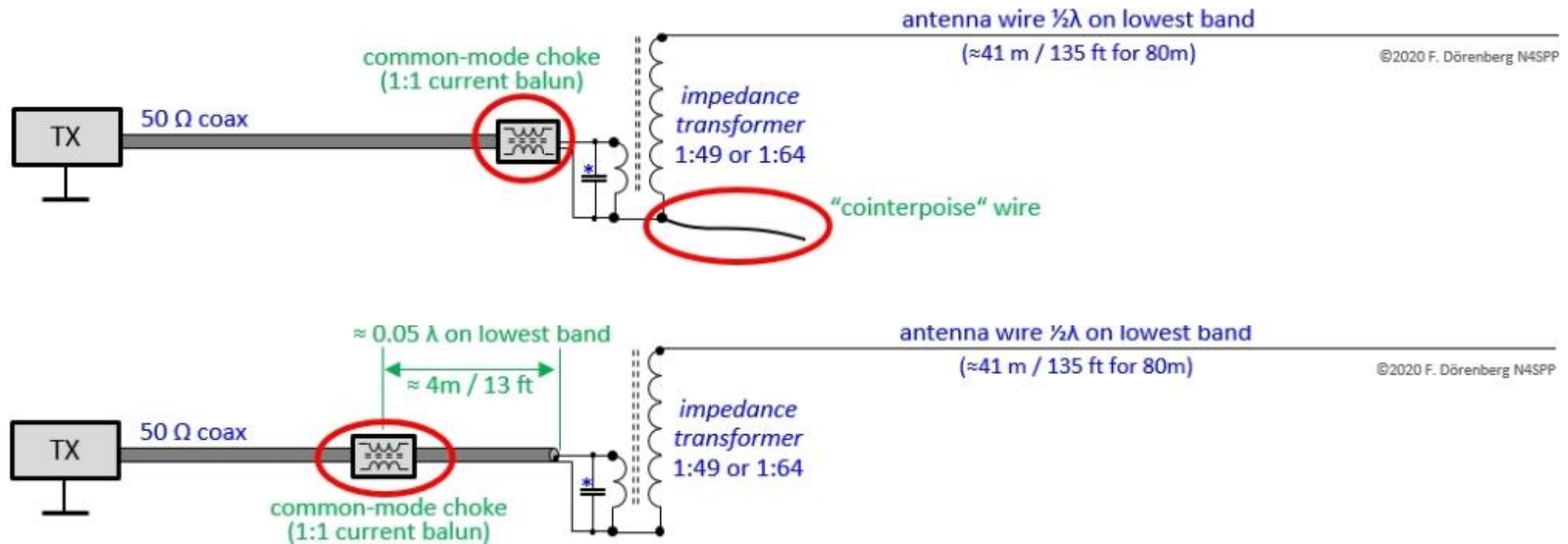
Updated 11/5/19
N4LQ



Endfed half-wave – EFHW (2)

En fin innføring finnes her:

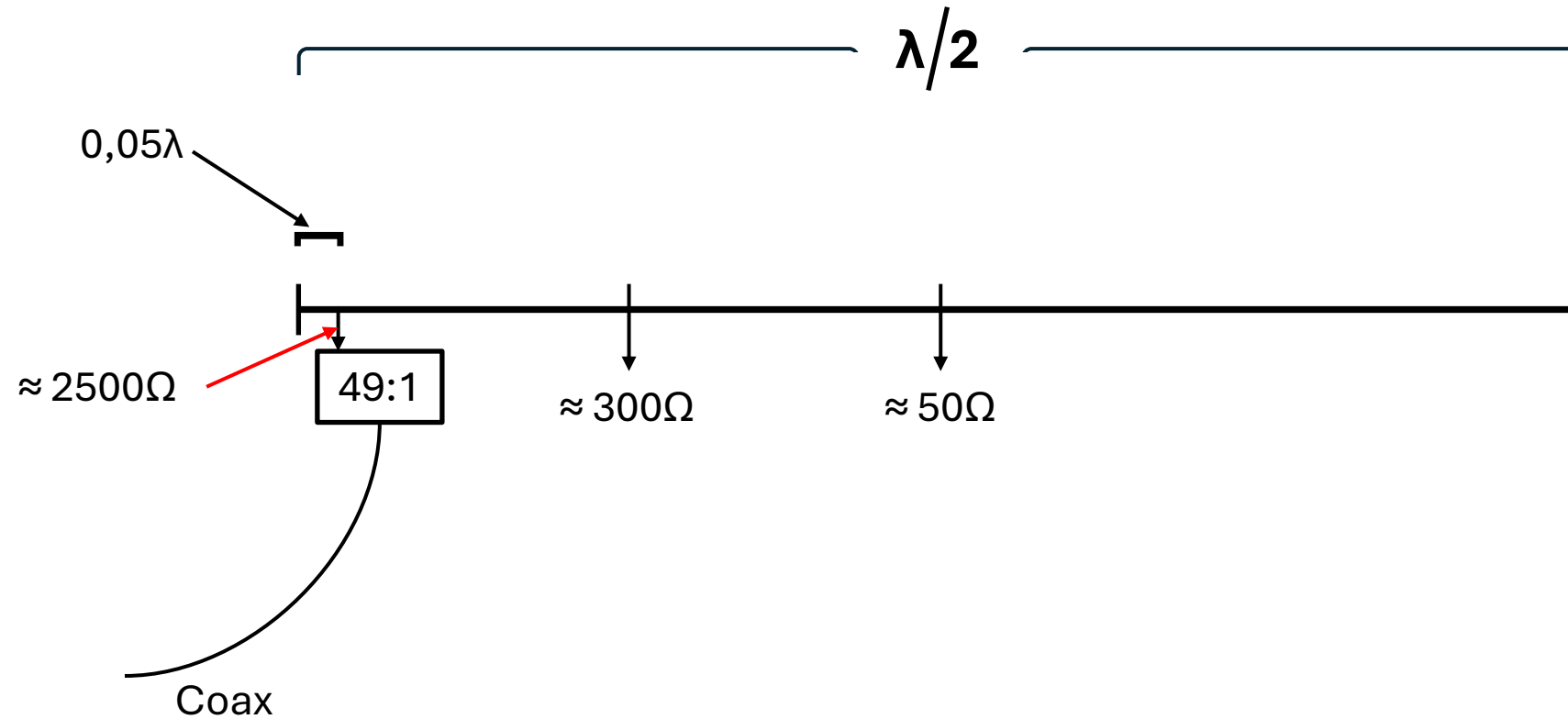
https://www.nonstopsystems.com/radio/frank_radio_antenna_multiband_end-fed.htm



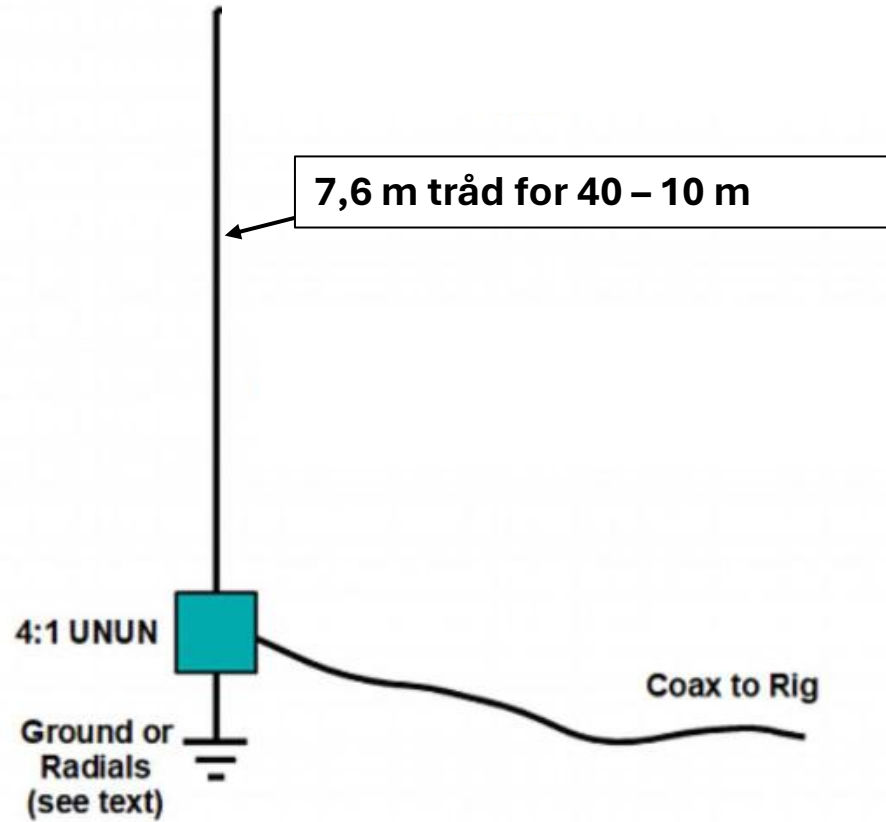


Endfed half-wave – EFHW (3)

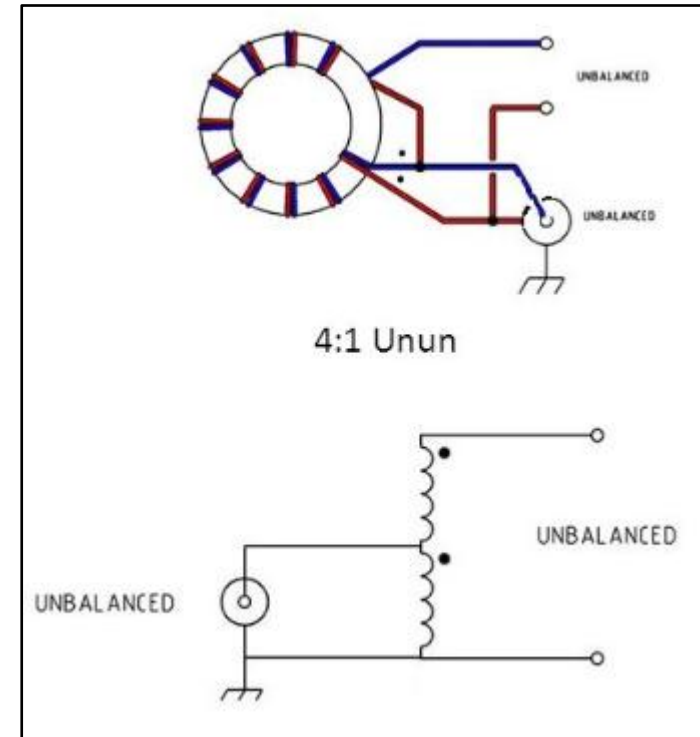
DIY multiband-antenna



Rybakov trådanterne



Anbefaler 5 stk 5m radialer



Zepp (Zeppelin) antenne (1)

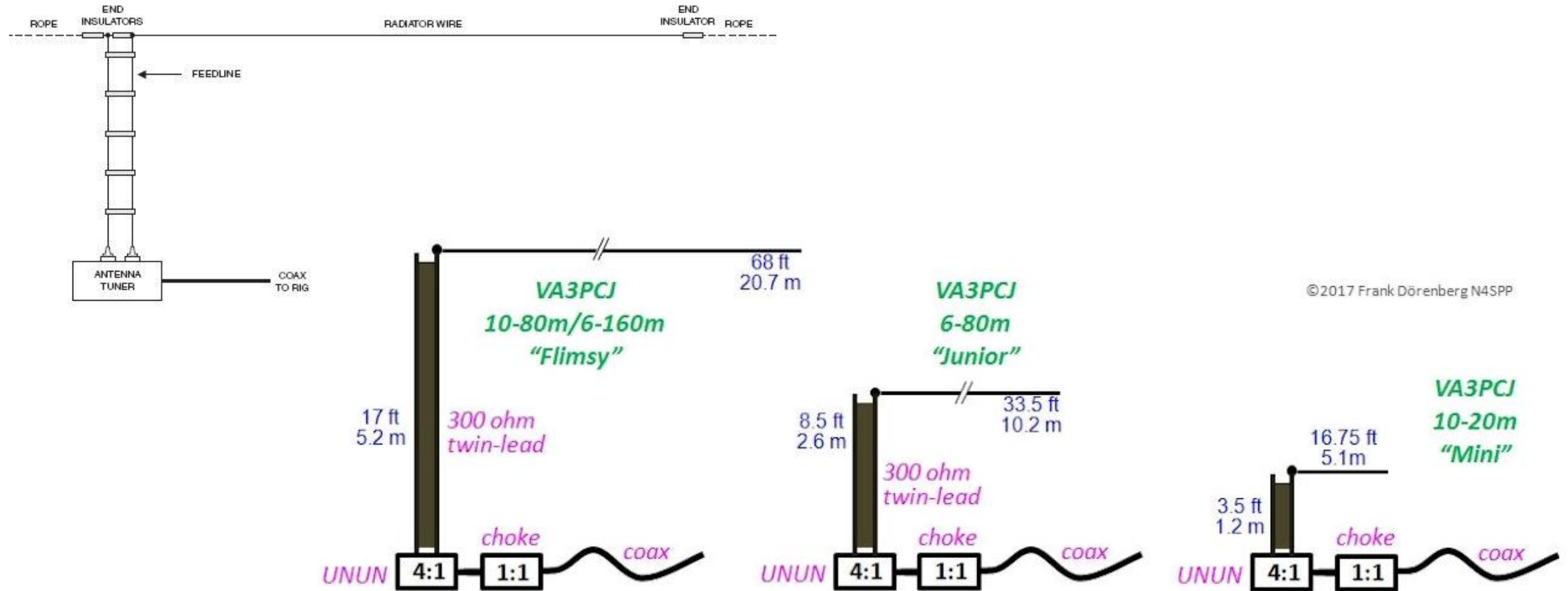


Figure 39: Versions of the W3EDP antenna by José Campione (VA3PCJ)

Zepp (Zeppelin) antenne (2)

Eksperimenter med counterpoise.

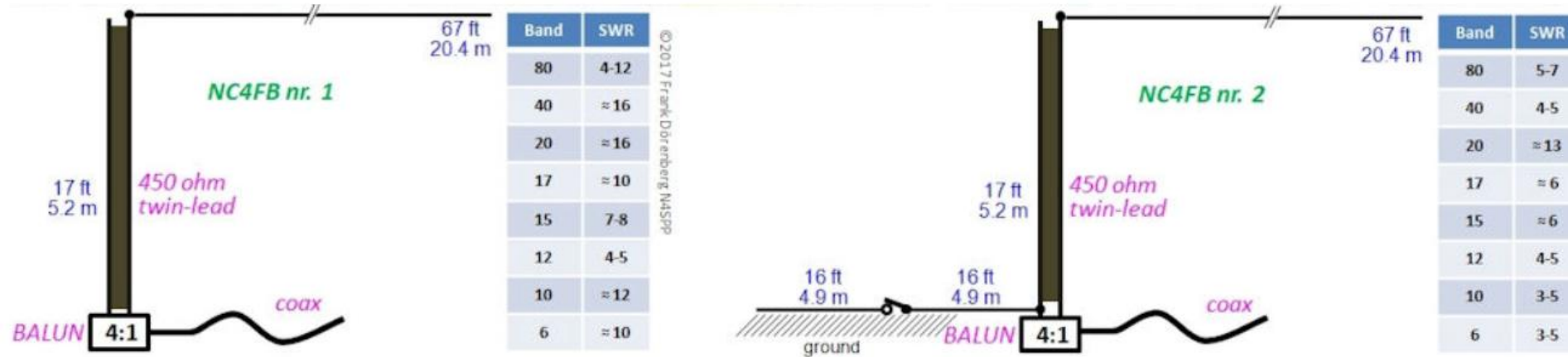


Figure 40: Versions 1 and 2 of the W3EDP antenna by Frederic Benson (NC4FB)

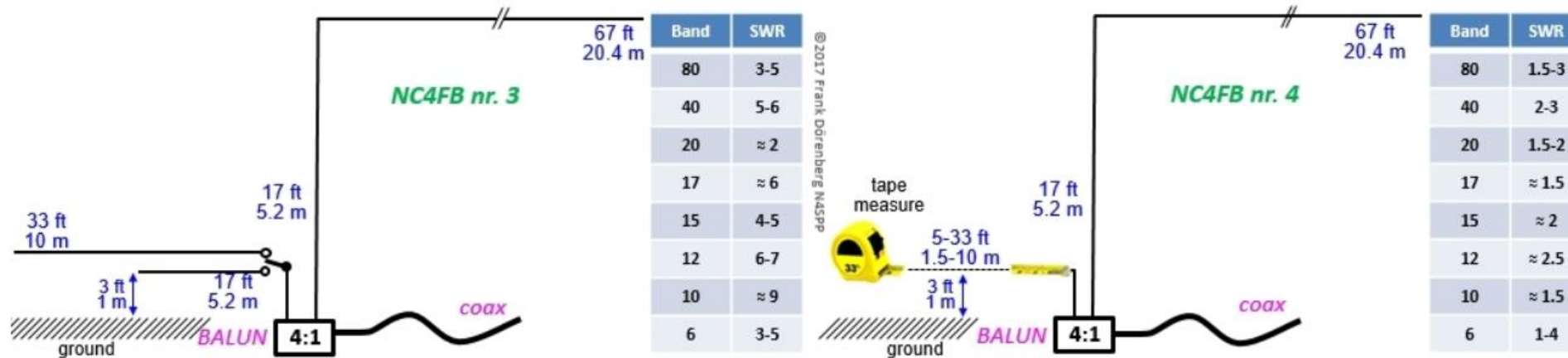


Figure 41: Versions 3 and 4 of the W3EDP antenna by Frederic Benson (NC4FB)

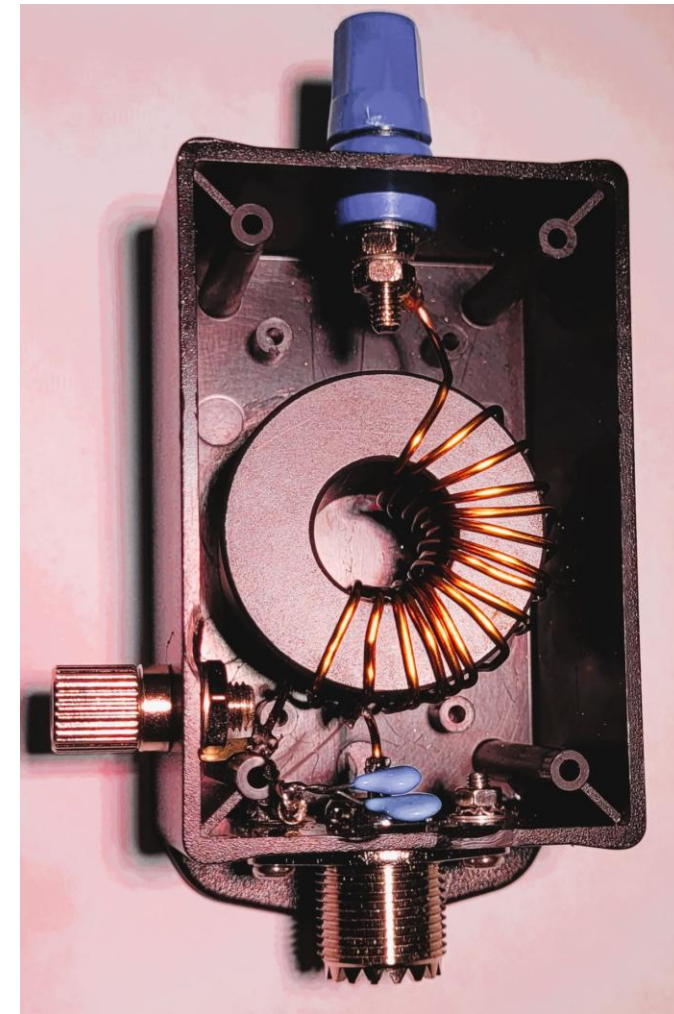
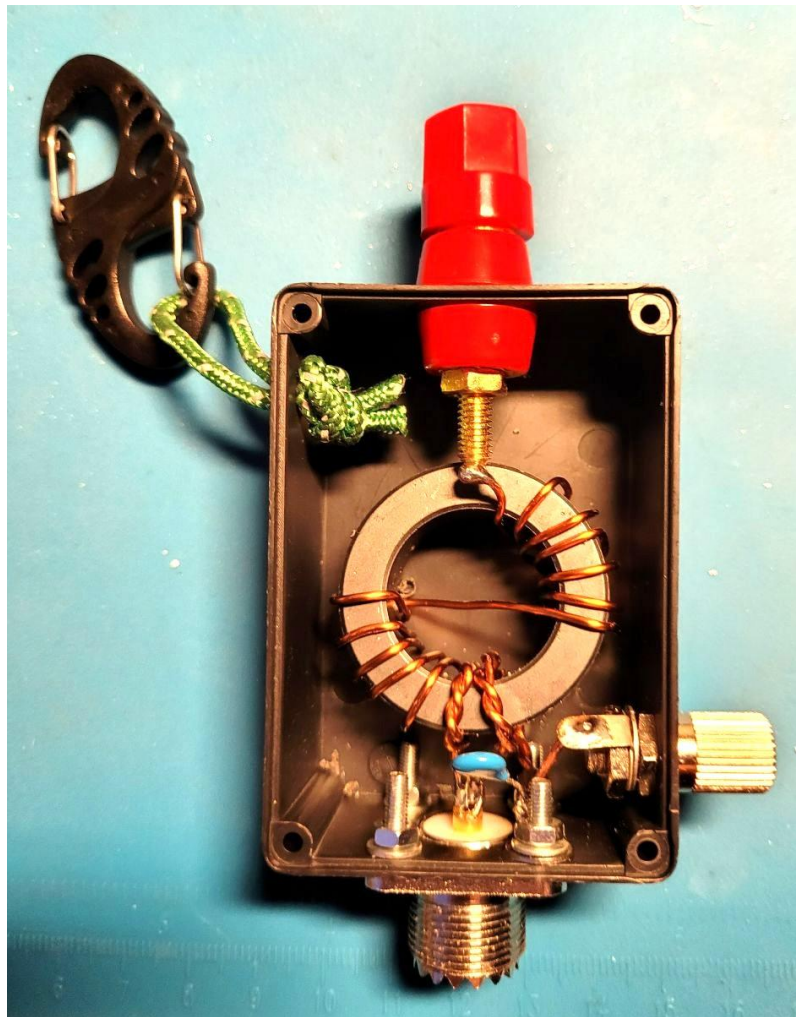
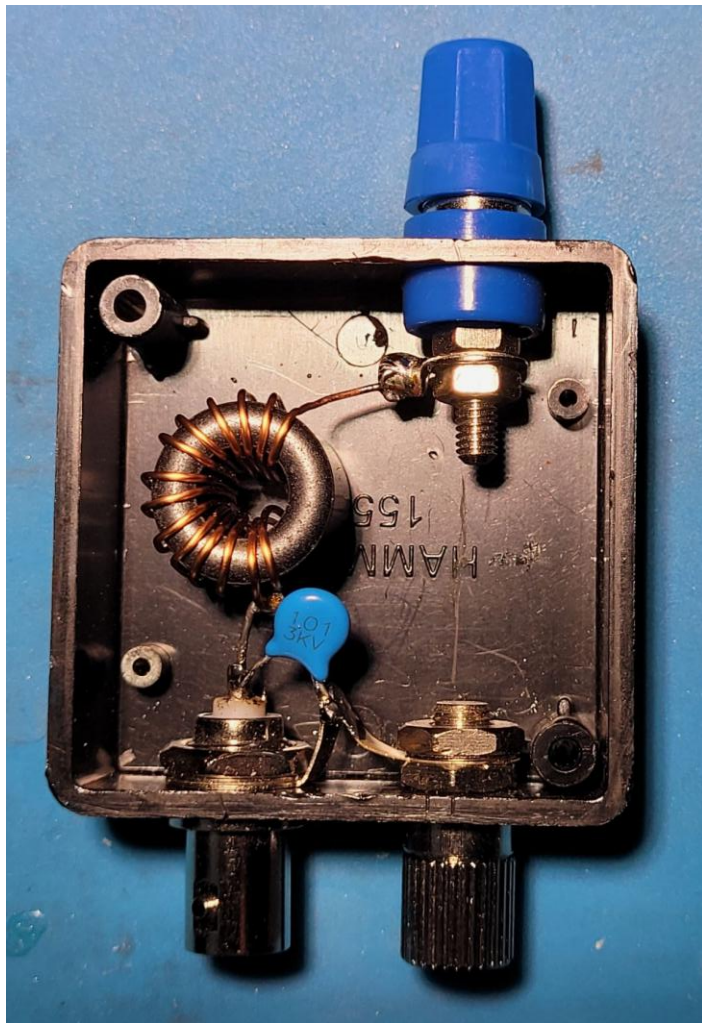


JPC-12



40 – 6 m

Tips (1): Eksempler på innbygging av balun eller unun i boks



Tips (2): Ringkjerne / toroider

For en tid tilbake begynte produsenten FAIR-RITE å levere nye toroider i type 43 miks. Noen veldig smarte personer begynte å eksperimentere med disse til UNUNs, og oppnådde meget gode resultater.

Beste resultater ble oppnådd ved å vikle trafoen som en autotrafo med tette viklinger.



Tips (3): Ringkjerter / toroider

https://www.elfadistrelec.no/no/search?q=toroider&filter_discorematerialgradetxt_no_ss=43

Produsent: Amidon



Art.no.: 158-74-136 / PDN FT-50A-43 (19,60 +mva):

Innvendig diameter	7.9 mm
Utvendig diameter	12.7 mm
Høyde	6.4 mm

Art.no.: 158-74-169 / PDN FT-82-43 (26,30 +mva):

Innvendig diameter	13.21 mm
Utvendig diameter	20.96 mm
Høyde	6.4 mm

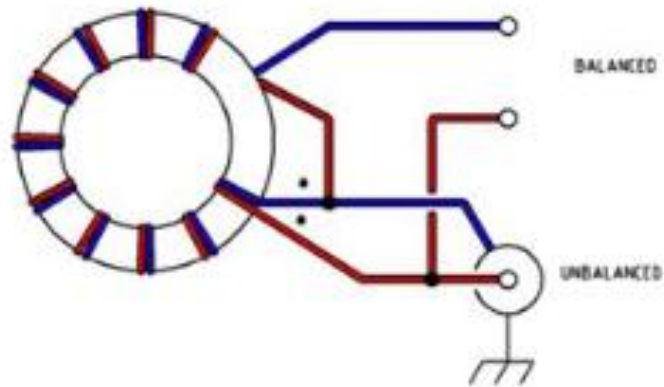
Art.no.: 158-74-300 / PDN FT-140-43 (76,32 +mva):

Innvendig diameter	22.86 mm
Utvendig diameter	35.56 mm
Høyde	12.7 mm

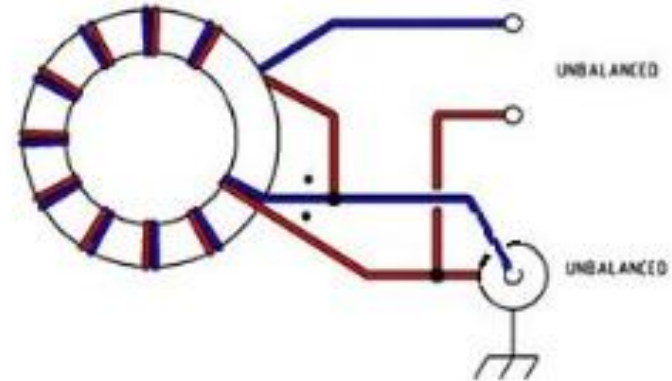
Art.no.: 158-74-334 / PDN FT-240-43 (291,92 +mva):

Innvendig diameter	35.56 mm
Utvendig diameter	60.96 mm
Høyde	12.7 mm

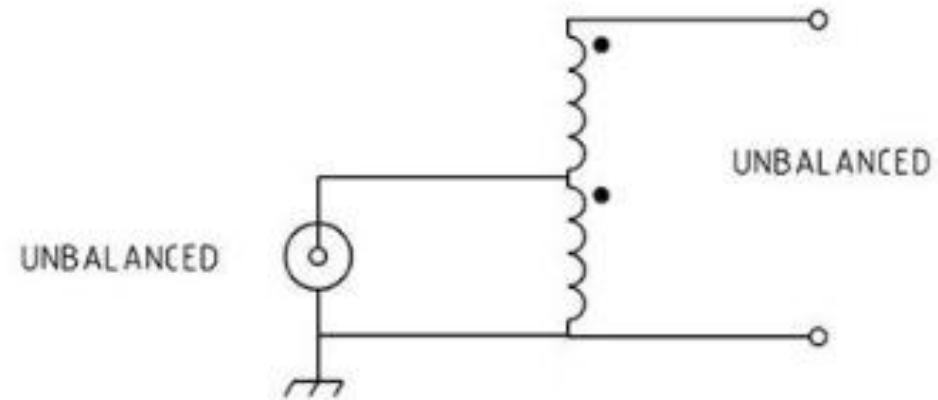
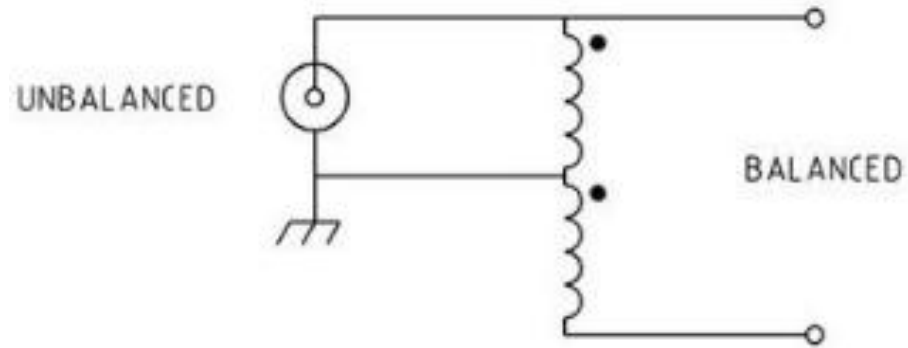
Tips (4): Eksempel på balun vs unun



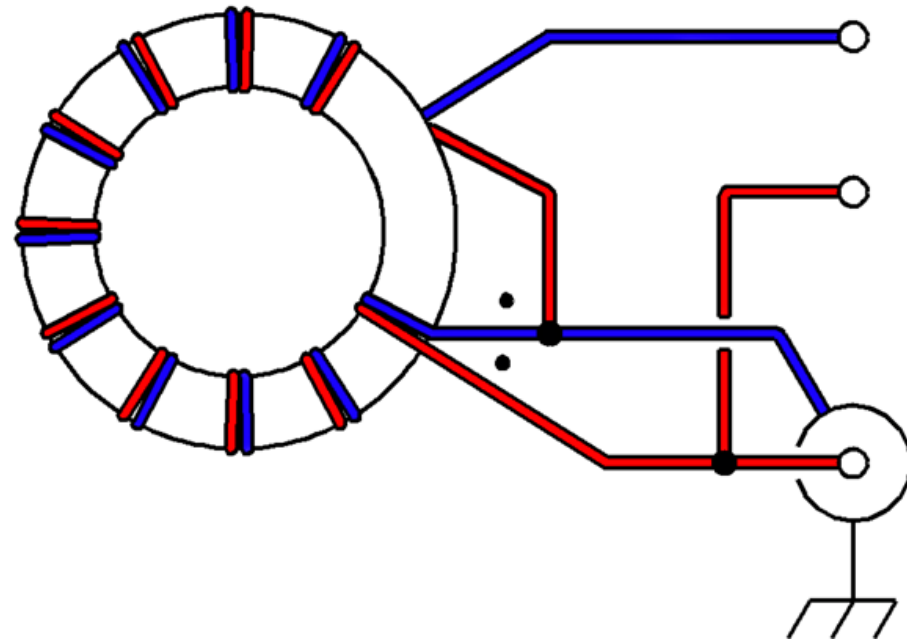
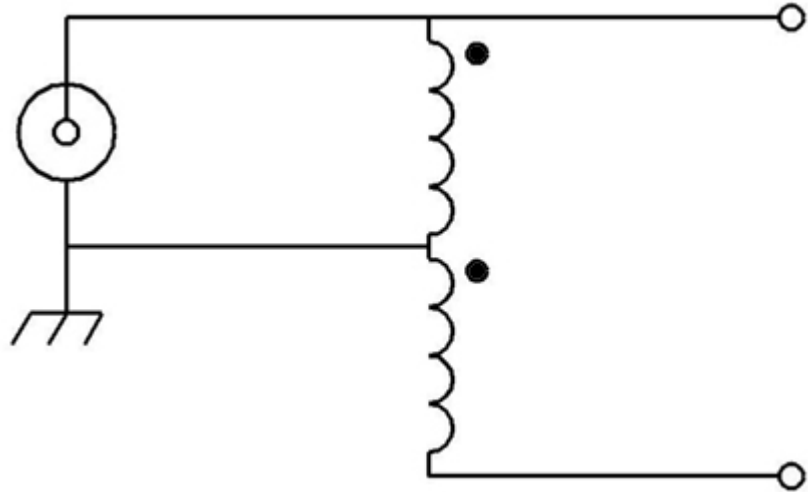
4:1 Balun



4:1 Unun

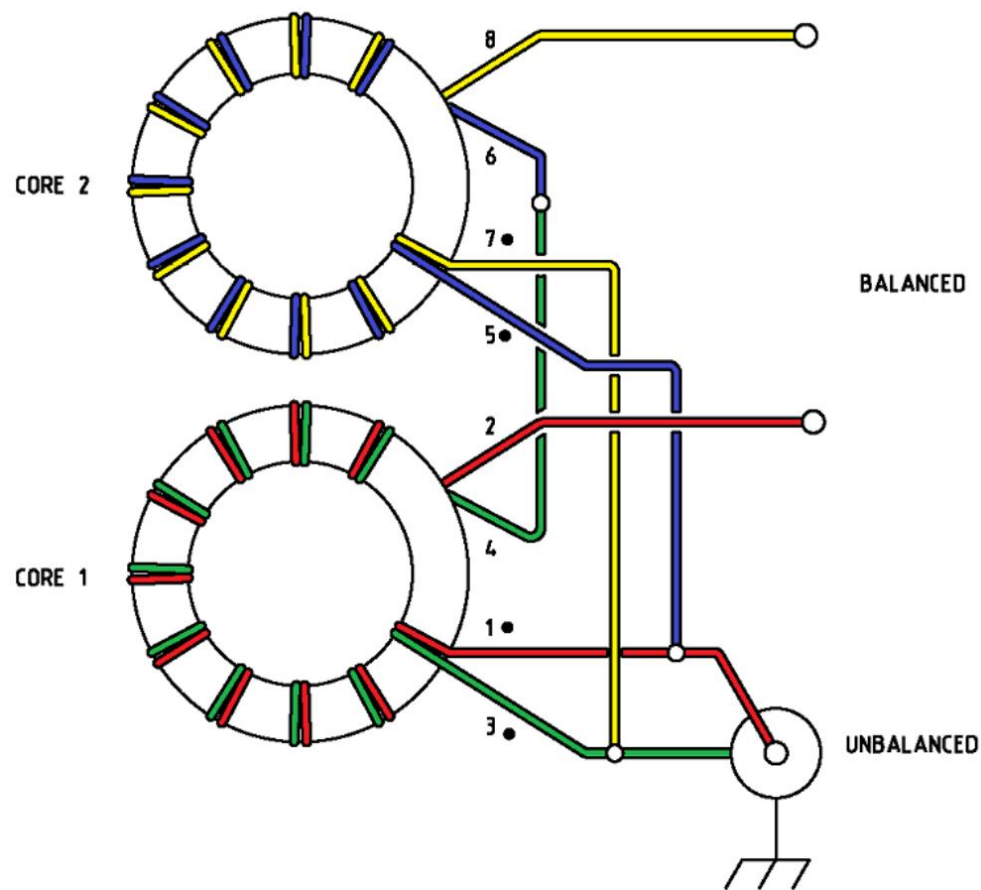
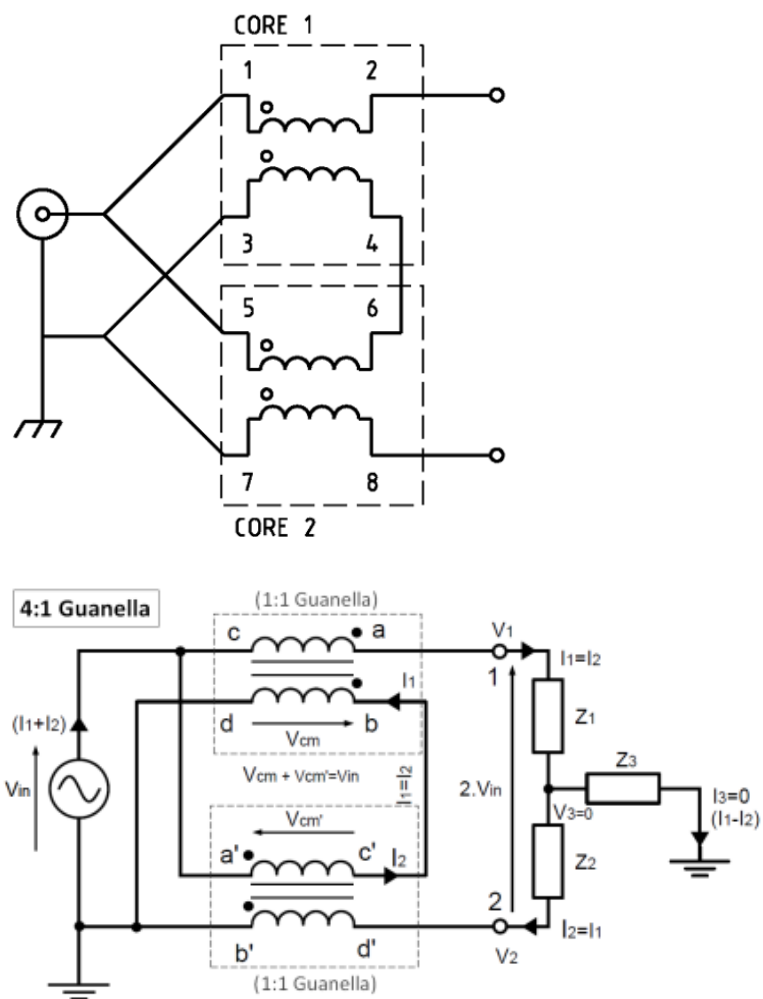


4:1 Ruthroff voltage balun



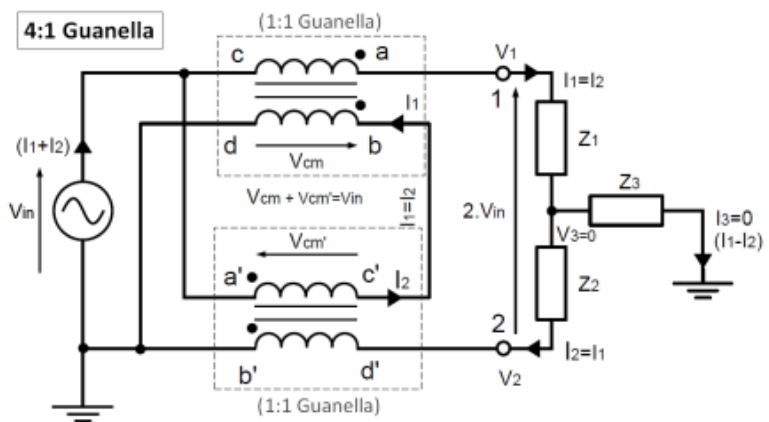
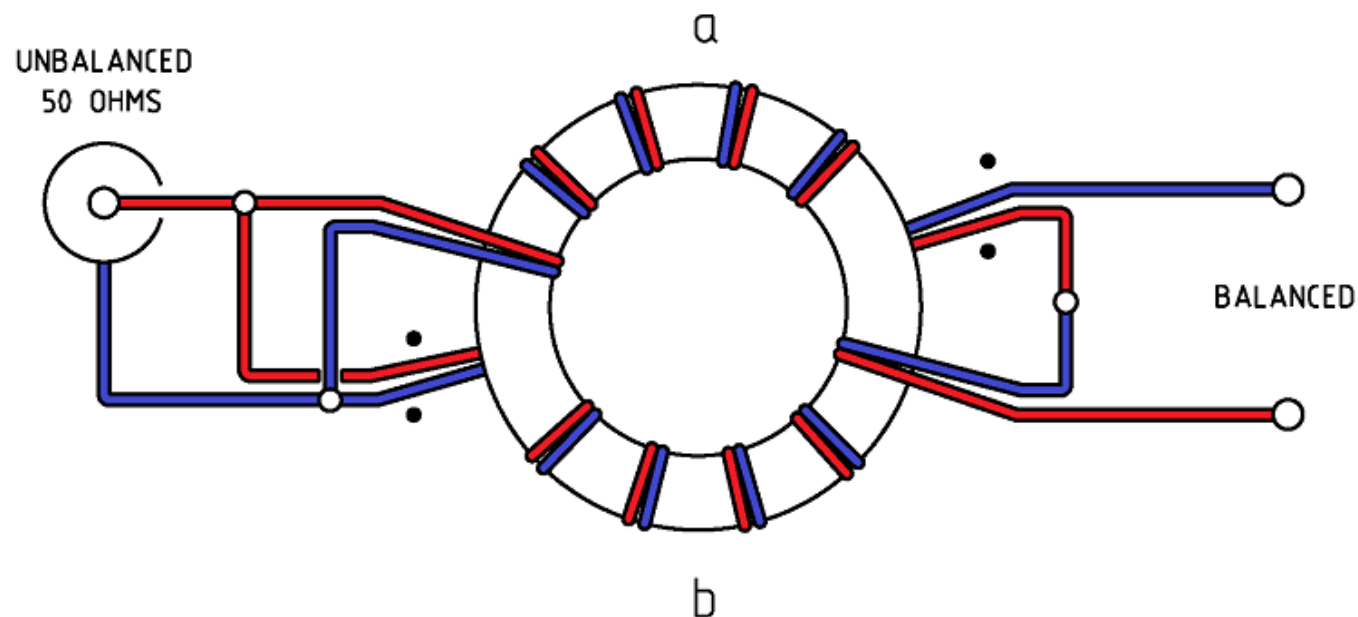
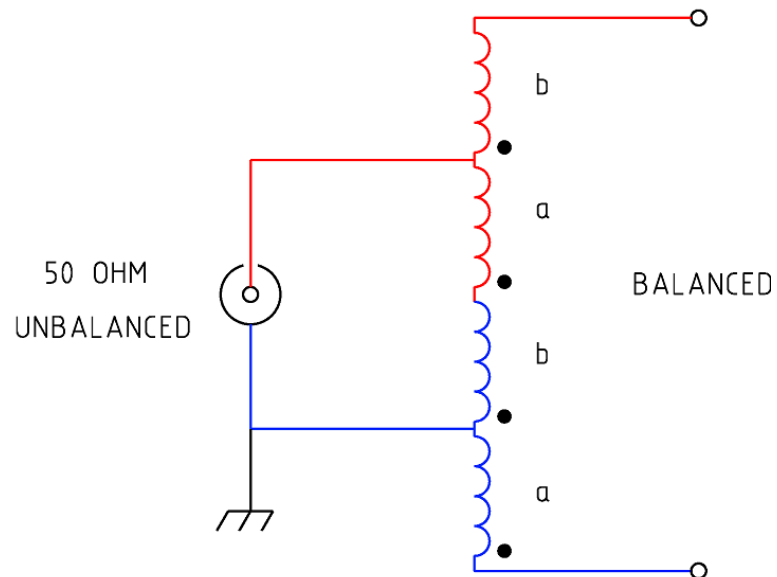
4:1 Guanella current balun to kjerter

Kan vikles på en eller to kjerter. Noen mener den MÅ vikles på to kjerter.

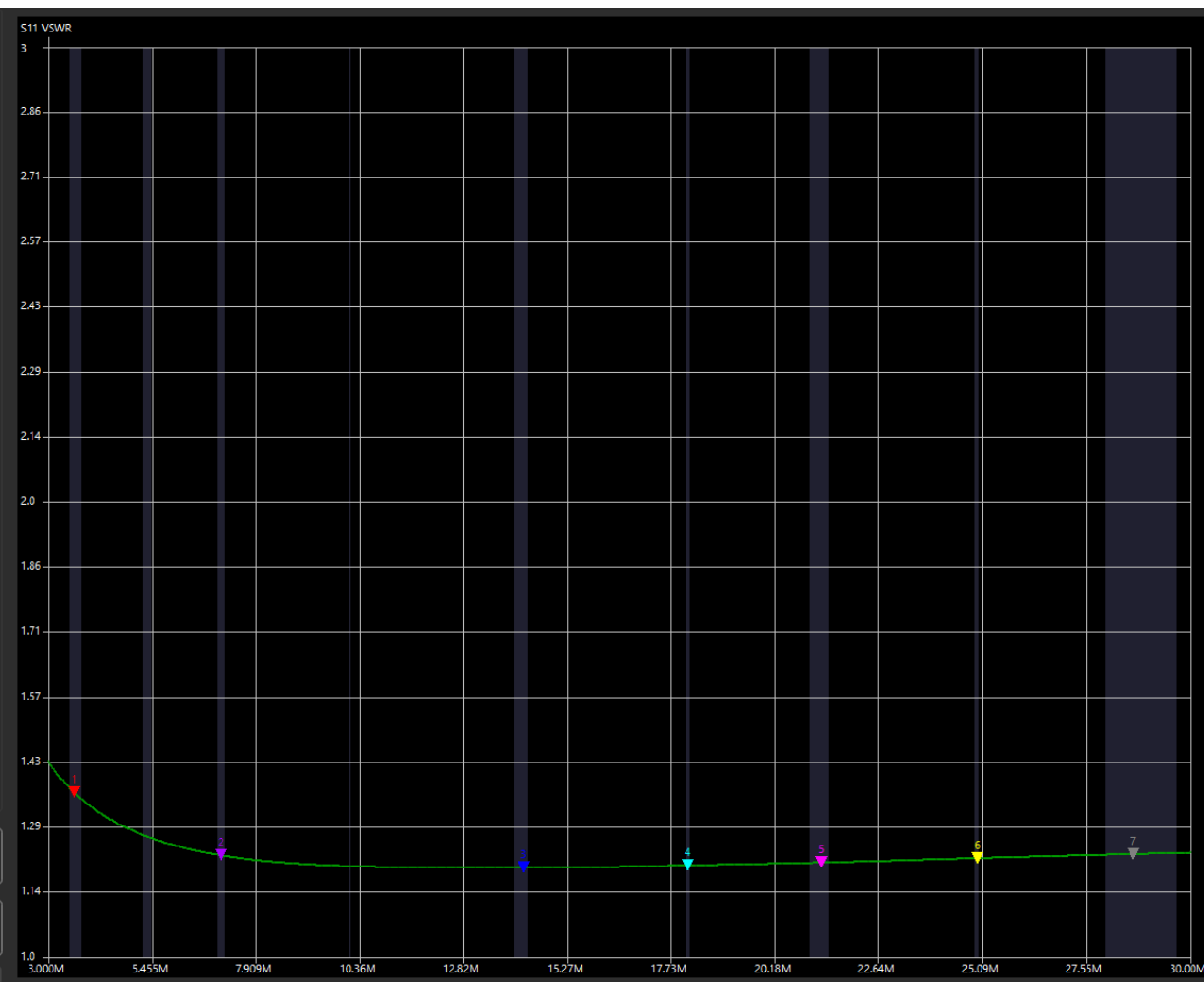
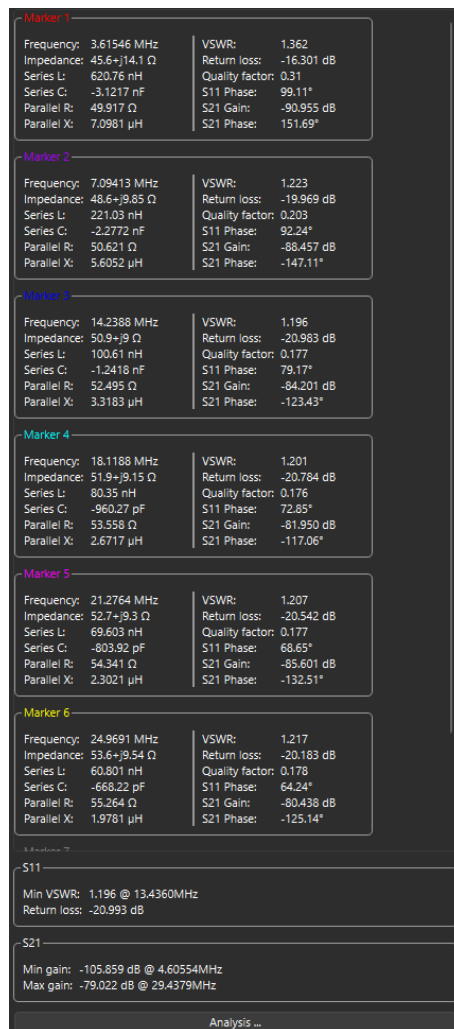


4:1 Guanella current balun en kjerne

Kan vikles på en eller to kjerne. Noen mener den MÅ vikles på to kjerne.



4:1 Guanella current balun en kjerne (T140-43)



CG ANTENNA BL-04 1:4 BALUN 100W



Marker 1			
Frequency:	3.61546 MHz	VSWR:	1.149
Impedance:	46.6+j5.82 Ω	Return loss:	-23.165 dB
Series L:	256.2 nH	Quality factor:	0.125
Series C:	-7.5638 nF	S11 Phase:	116.61°
Parallel R:	47.359 Ω	S21 Gain:	-92.631 dB
Parallel X:	16.704 μ H	S21 Phase:	-155.27°

Marker 2			
Frequency:	7.09413 MHz	VSWR:	1.123
Impedance:	47.2+j4.92 Ω	Return loss:	-24.727 dB
Series L:	110.36 nH	Quality factor:	0.104
Series C:	-4.5607 nF	S11 Phase:	116.56°
Parallel R:	47.735 Ω	S21 Gain:	-92.062 dB
Parallel X:	10.28 μ H	S21 Phase:	-151.73°

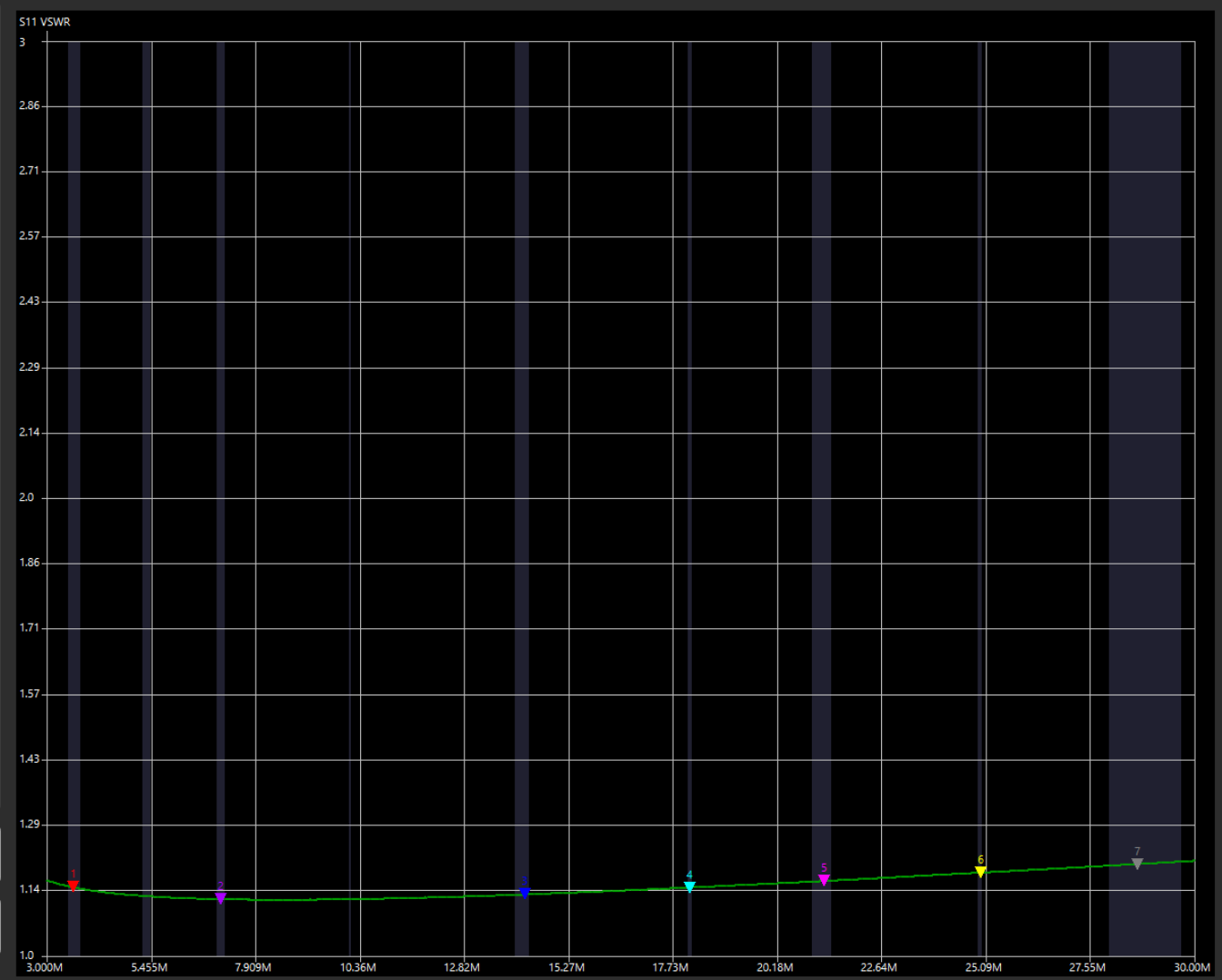
Marker 3			
Frequency:	14.2388 MHz	VSWR:	1.134
Impedance:	47.9+j5.75 Ω	Return loss:	-24.064 dB
Series L:	64.312 nH	Quality factor:	0.12
Series C:	-1.9427 nF	S11 Phase:	107.06°
Parallel R:	48.549 Ω	S21 Gain:	-88.817 dB
Parallel X:	4.5137 μ H	S21 Phase:	-122.84°

Marker 4			
Frequency:	18.1188 MHz	VSWR:	1.149
Impedance:	48.1+j6.53 Ω	Return loss:	-23.194 dB
Series L:	57.372 nH	Quality factor:	0.136
Series C:	-1.3449 nF	S11 Phase:	102.52°
Parallel R:	48.974 Ω	S21 Gain:	-84.506 dB
Parallel X:	3.1672 μ H	S21 Phase:	-105.01°

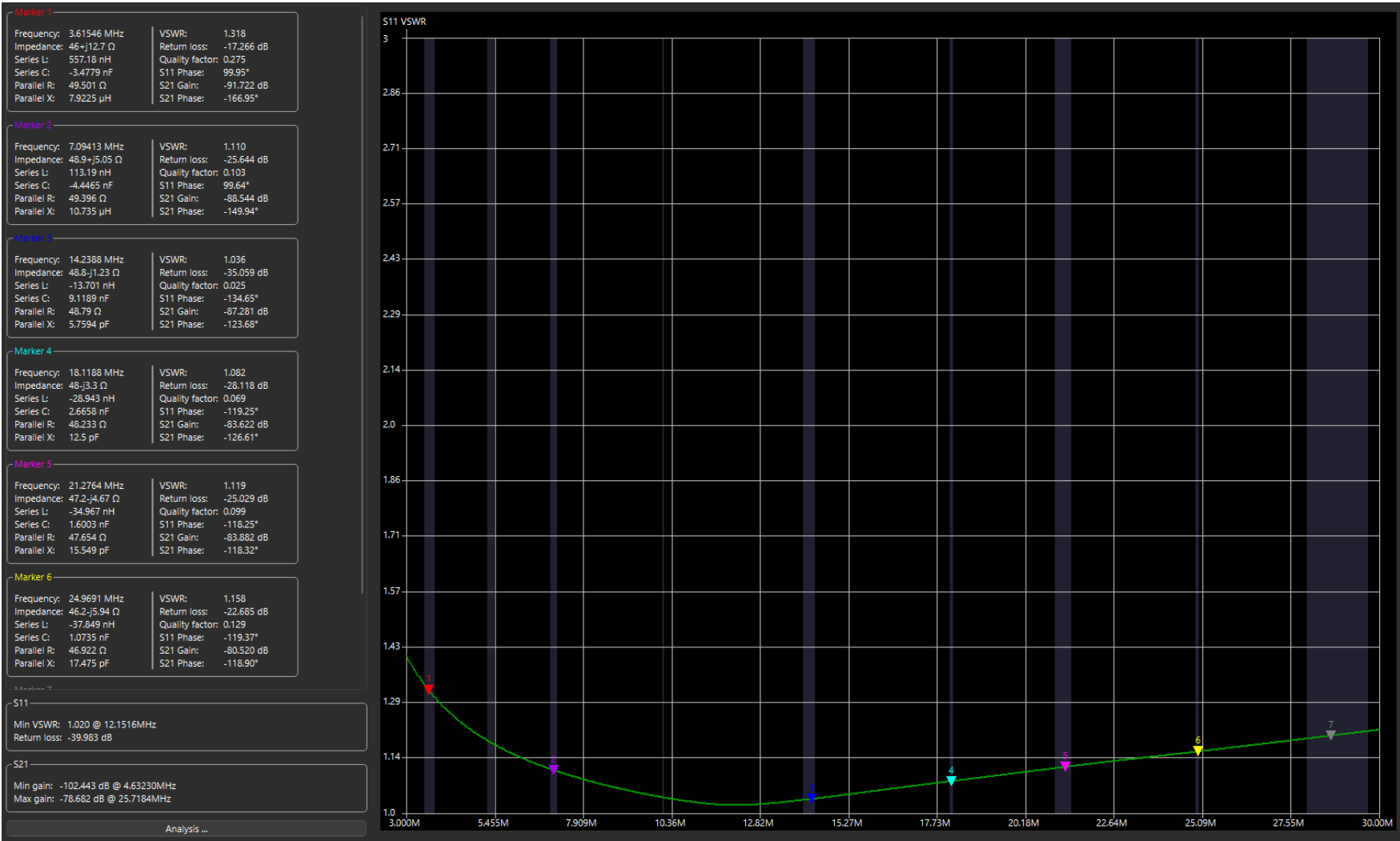
Marker 5			
Frequency:	21.2764 MHz	VSWR:	1.163
Impedance:	48.3+j7.21 Ω	Return loss:	-22.461 dB
Series L:	53.96 nH	Quality factor:	0.149
Series C:	-1.037 nF	S11 Phase:	99.40°
Parallel R:	49.334 Ω	S21 Gain:	-81.916 dB
Parallel X:	2.4687 μ H	S21 Phase:	-119.36°

Marker 6			
Frequency:	24.9691 MHz	VSWR:	1.181
Impedance:	48.4+j8.06 Ω	Return loss:	-21.604 dB
Series L:	51.364 nH	Quality factor:	0.166
Series C:	-791 pF	S11 Phase:	96.37°
Parallel R:	49.767 Ω	S21 Gain:	-80.222 dB
Parallel X:	1.9064 μ H	S21 Phase:	-120.12°

S11	
Min VSWR:	1.122 @ 8.35180MHz
Return loss:	-24.810 dB
S21	
Min gain:	-107.734 dB @ 5.46183MHz
Max gain:	-79.491 dB @ 28.9295MHz



4:1 balun



Tips (5): Antennetråd

<https://www.chrystech.no/s%C3%B8k?controller=search&s=sotabeams+-+antennetr%C3%A5d>



SotaBeams - Antennetråd Kraftig
(50m)

kr 279.00

 Kjøp



SotaBeams - Antennetråd Kraftig
(100m)

kr 539.00

 Kjøp



SotaBeams - Antennetråd
Lettvekt (100m)

kr 195.00

 Kjøp



SotaBeams - Antennetråd
Lettvekt (500m)

kr 855.00

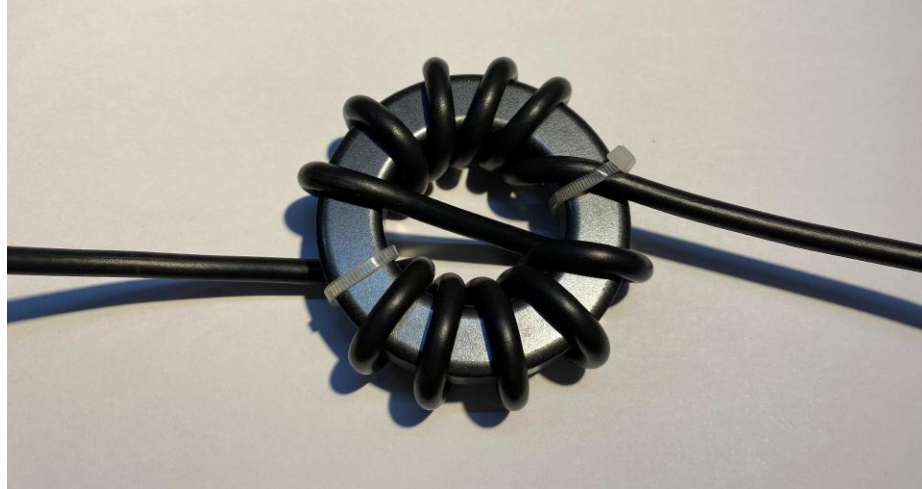
 Kjøp

1000 W
1 mm² total conductor (approx. 17AWG)
Velocity factor 0.97

150 W
0,22 mm² total conductor
Velocity factor 0.97



Tips (6): RF choke



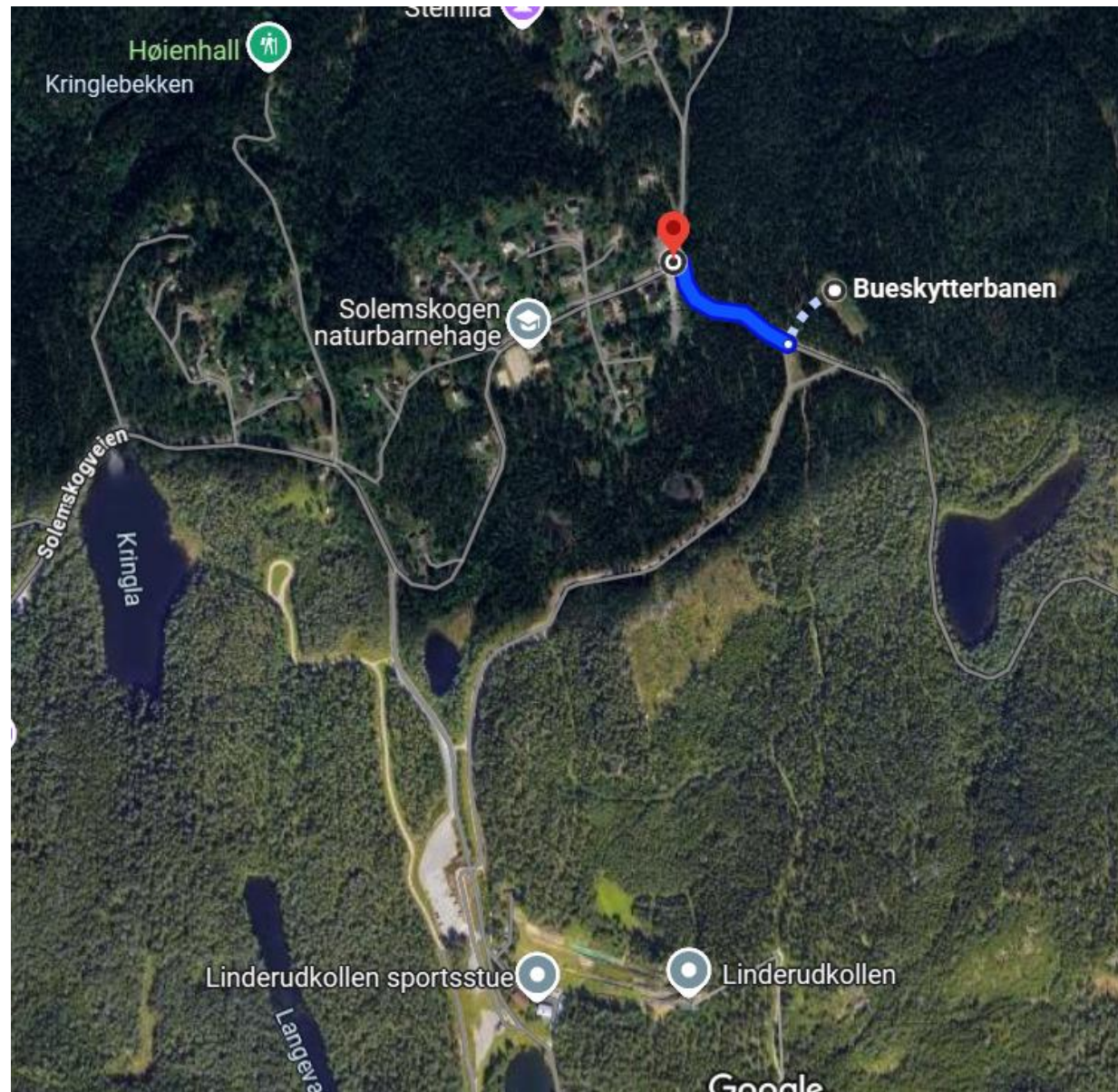
<https://moonrakeronline.com/us/blog/how-to-make-an-rf-choke>





Solemskogen bueskytterbane

*Vi møtes lørdag
14/6-25 kl. 12:00*





Solemskogen bueskytterbane

Vi møtes lørdag 14/6-25 kl. 12:00

