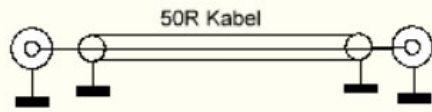
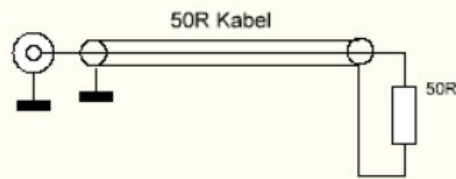


Kabelprüfung

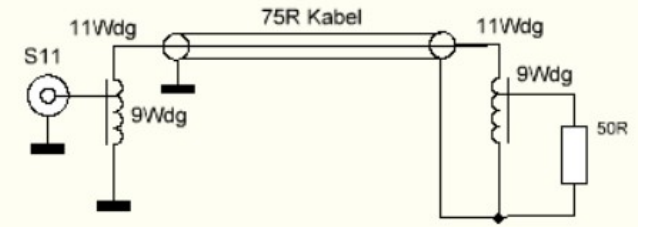
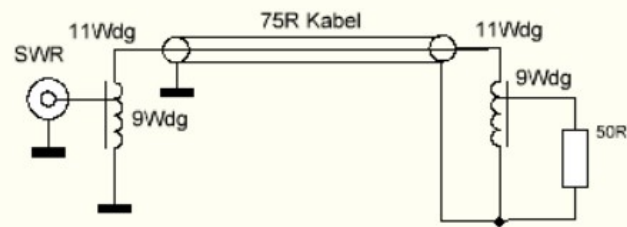
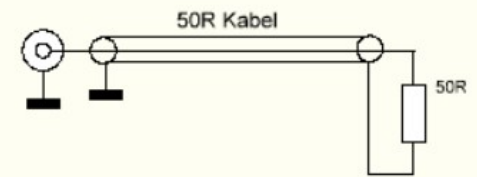
S21 - Messung



SWR - Messung



S11 - Messung



Helmut – DL2AVH

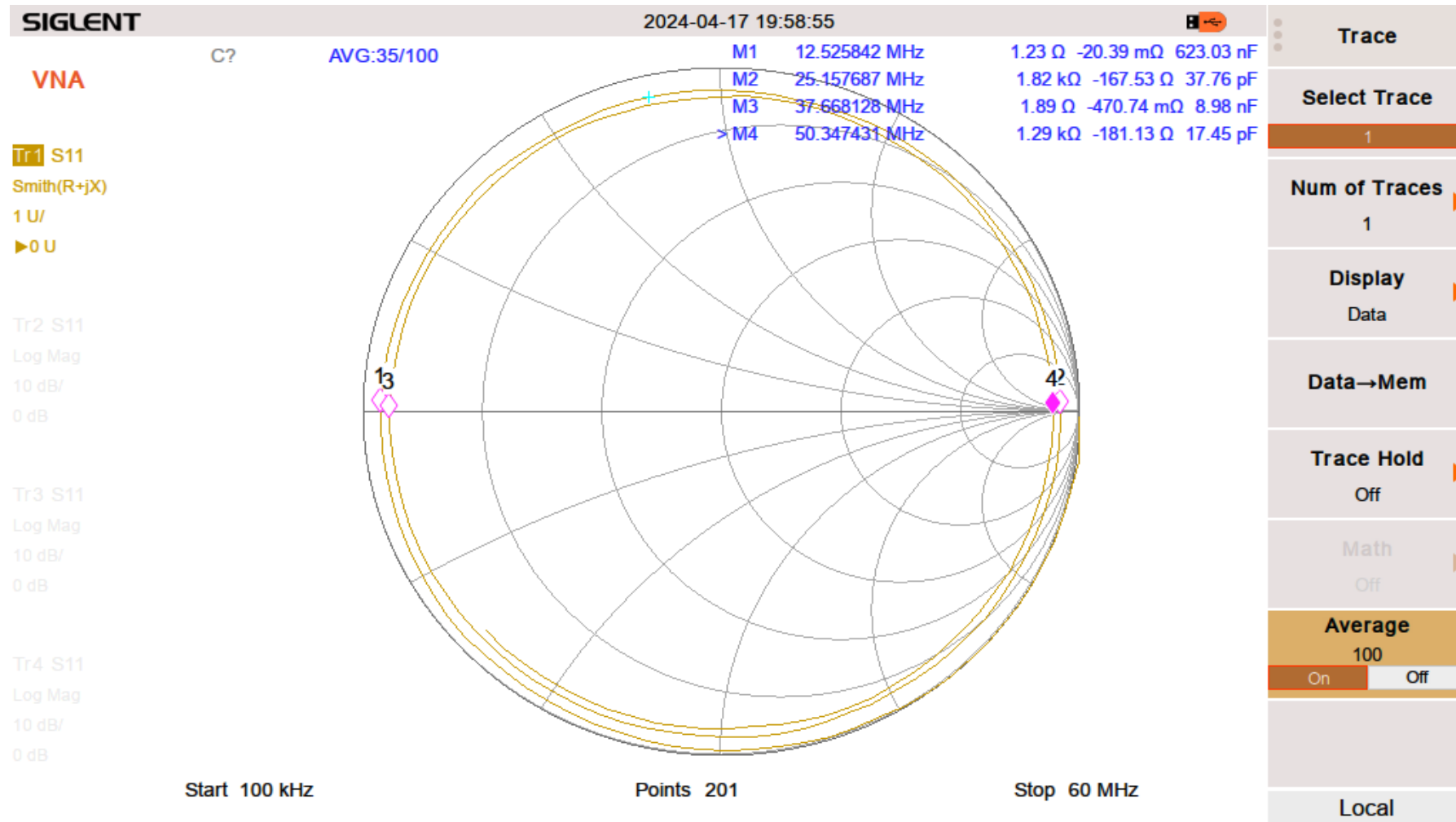
Serba 4/2024

	RG 174 A/U	RG 58 C/U	RG 8/U	RG 213/U
Aufbau	Mini		Baugleich RG 213 UBX	
Innenleiter	7 x 0.16 mm Staku	19 x 0.18 mm Cu verz.	7x0.70 mm Cu blank	7 x 0.75 mm Cu blank
Dielektrikum (+/- 0.1 mm)	1.54 mm PE	2.95 mm PE	6.40 mm PE	7.30 mm PE
Aussenleiter				
a)	Cu-Geflecht verzinnt	Cu-Geflecht verzinnt	Cu-Geflecht blank	Cu-Geflecht blank
b)				
c)				
Mantel gesamt +/- 0,2 mm	2.8 mm PVC	4.95 mm PVC	9.5 mm PVC	10.3 mm PVC
Elektrische Eigenschaften				
Wellenwiderstand/ Impedanz (Ω)	50 +/-3	50 +/-3	50 +/- 3	50 +/-3
Kapazität (pF/m)	103	103	103	103
Verkürzungsfaktor (v/c)	0,66	0,66	0,66	0,66
Dämpfung bei 20°C (dB 100m)				
1 MHz				
5 MHz				
10 MHz	9,6	4,7	2,0	1,8
20 MHz	13,7	7,2	3,0	2,8
50 MHz	21,8	10,7	4,8	4,4
100 MHz	31,1	15,3	7,8	6,8
200 MHz	44,5	22,8	10,6	9,7
300 MHz	50,3	28,3	13,4	12,3
500 MHz	72,7	37,0	17,2	16,2
800 MHz	91,3	48,8	24,0	21,5
1000 MHz	106,1	55,5	27,5	24,5
1500 MHz				
2250 MHz				
3000 MHz				

SAT Kabel

	75100 AKZ 3-S RG 6 (1.0/4.6) A+			
Construction				
Inner conductor	1.0 mm Copper bare			
Insulation	4.6 mm Cell PE +/- 0.1			
Outer Conductor				
a) Alu-foil	bonded			
b) Copper-braid tinned	approx.. 65%			
c) Alu-foil	bonded			
Jacket	6.8 mm PVC +/- 0.2			
Electrical properties				
Characteristic impedance (Ω)	75 +/-3			
Capacity (pF/m)	55			
Velocity (v/c)	0,85			
Attenuation at 20°C (dB 100m)				
100 MHz	6,1			
200 MHz	8,7			
450 MHz	13,7			
800 MHz	18,5			
1000 MHz	20,5			
1350 MHz	23,0			
1750 MHz	25,6			
2050 MHz	29,4			
2400 MHz	31,9			

5m SMA-Kabel 50 Ohm

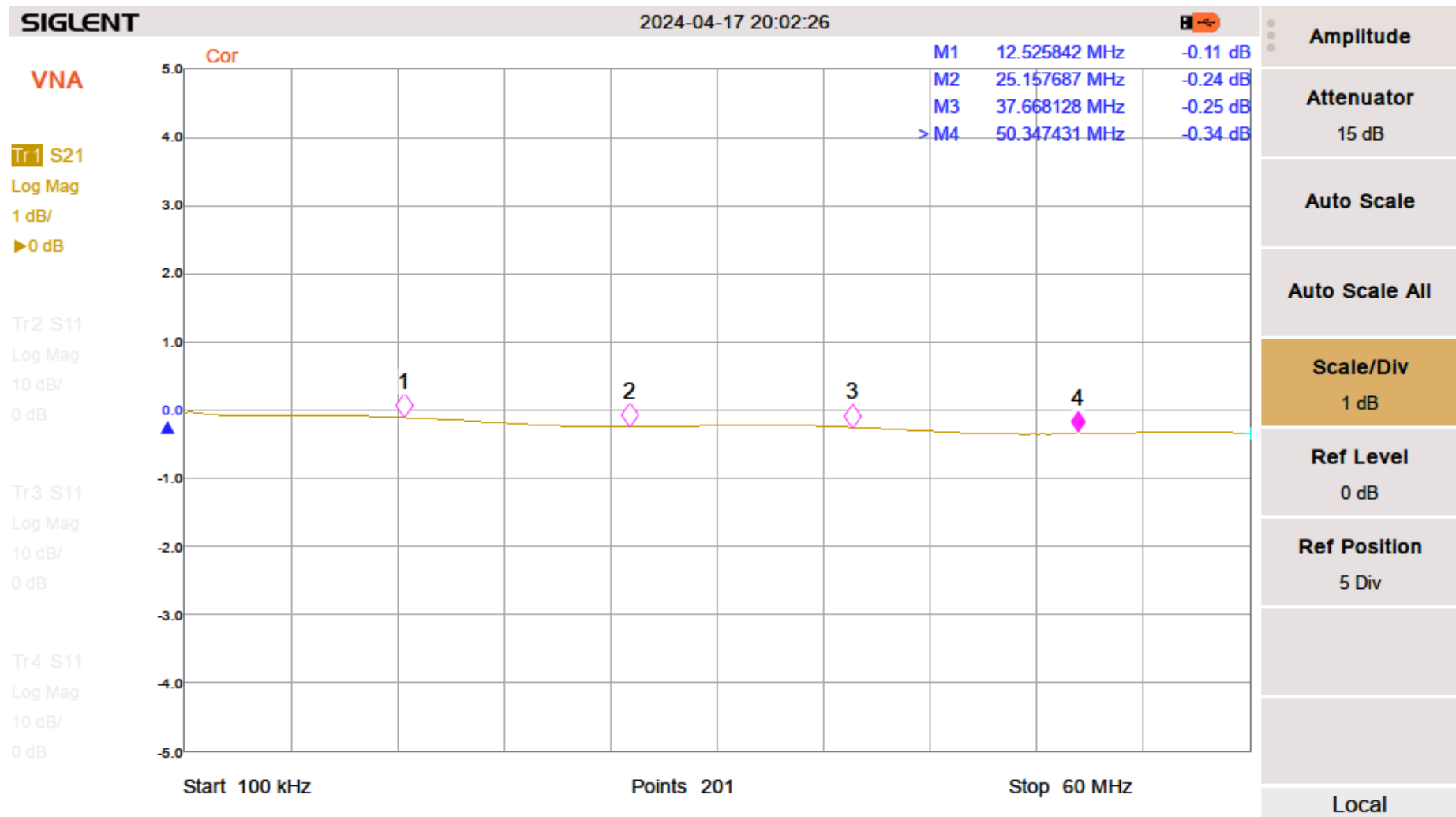


S11 - Messung (offen)

Helmut – DL2AVH

Serba 4/2024

5m SMA-Kabel 50 Ohm

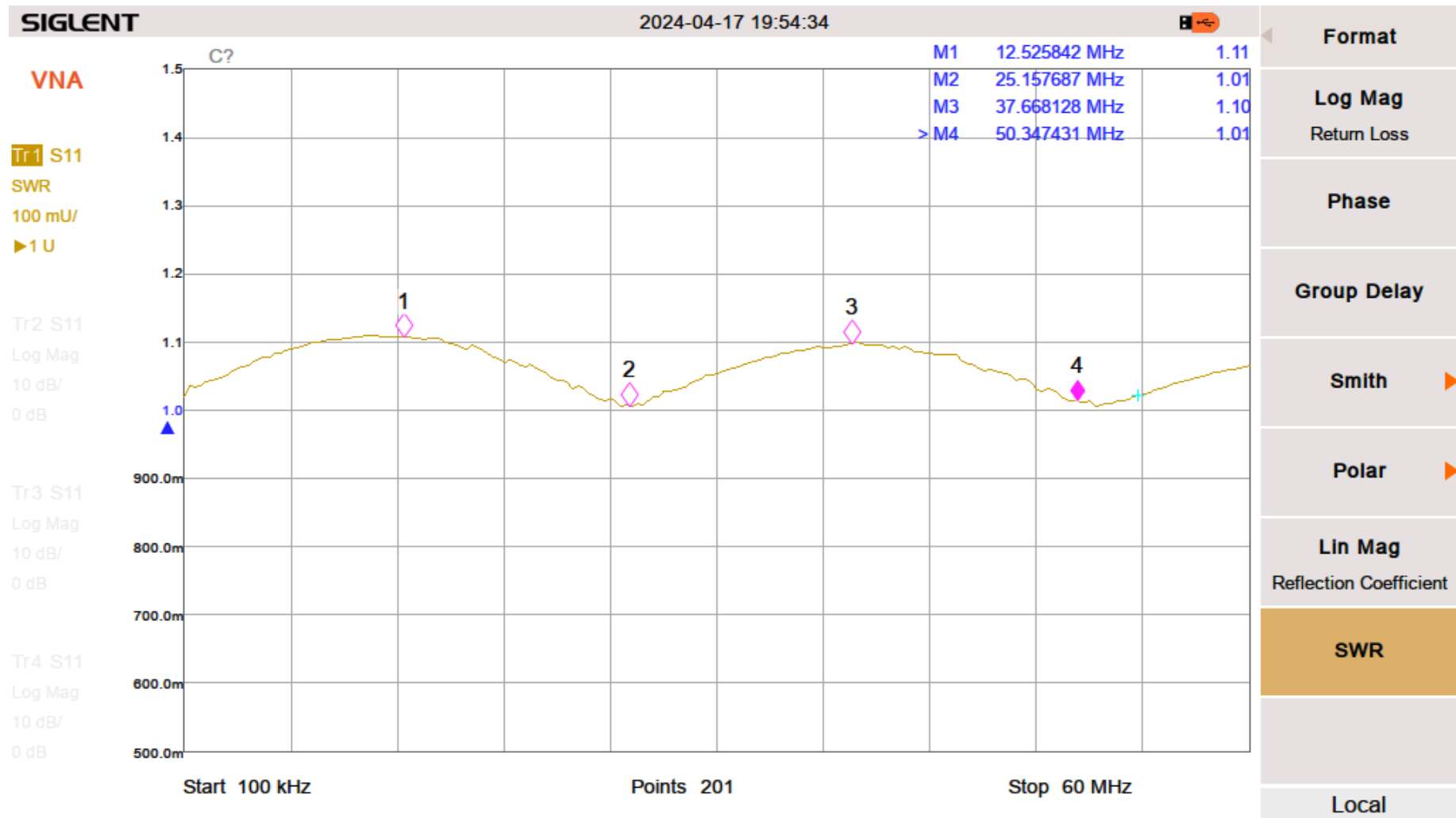


S21 - Messung

Helmut – DL2AVH

Serba 4/2024

5m SMA-Kabel 50 Ohm

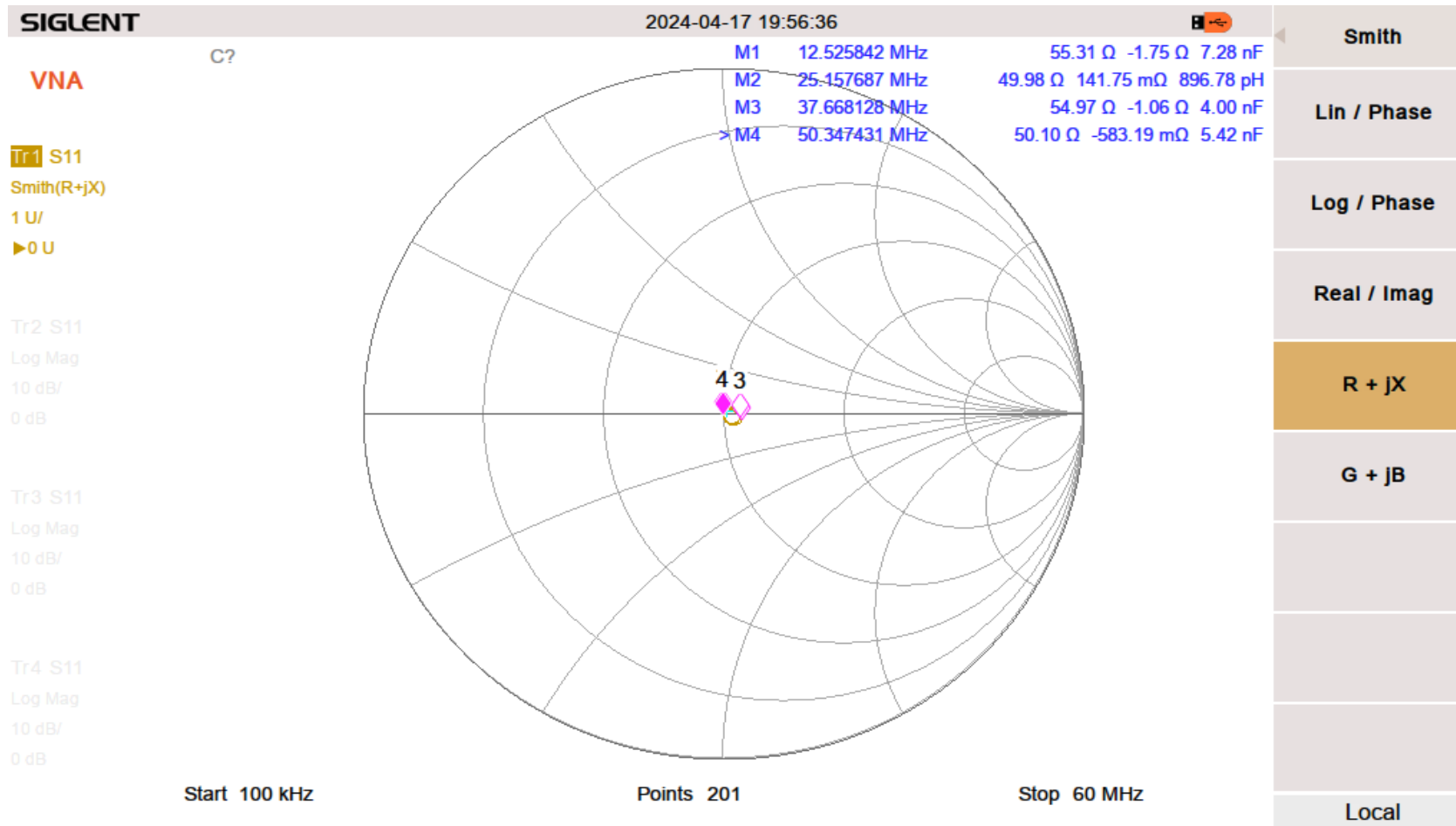


SWR - Messung

Helmut – DL2AVH

Serba 4/2024

5m SMA-Kabel 50 Ohm

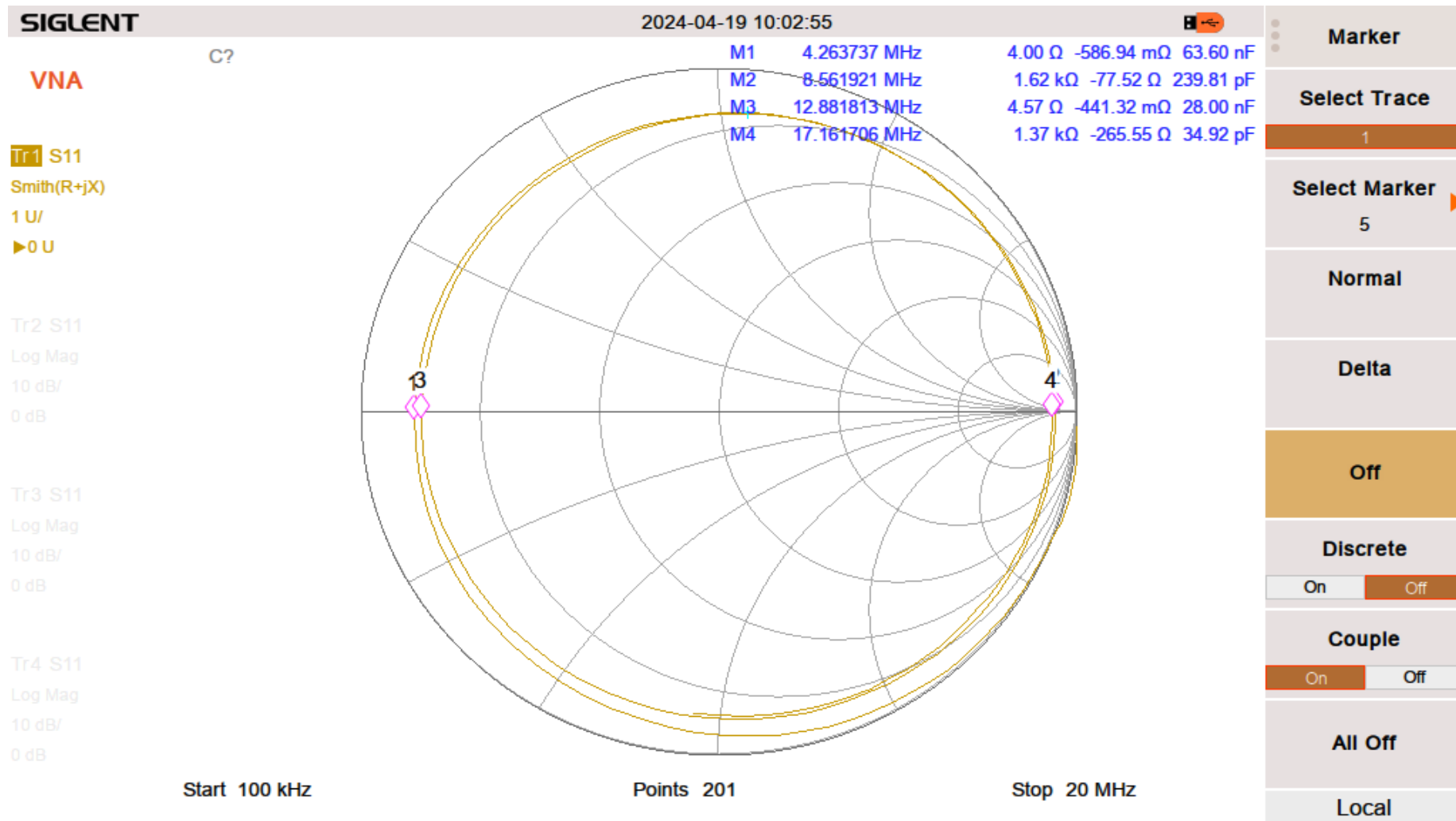


S11 - Messung

Helmut – DL2AVH

Serba 4/2024

15m – SAT Kabel 75Ohm ohne Übertrager

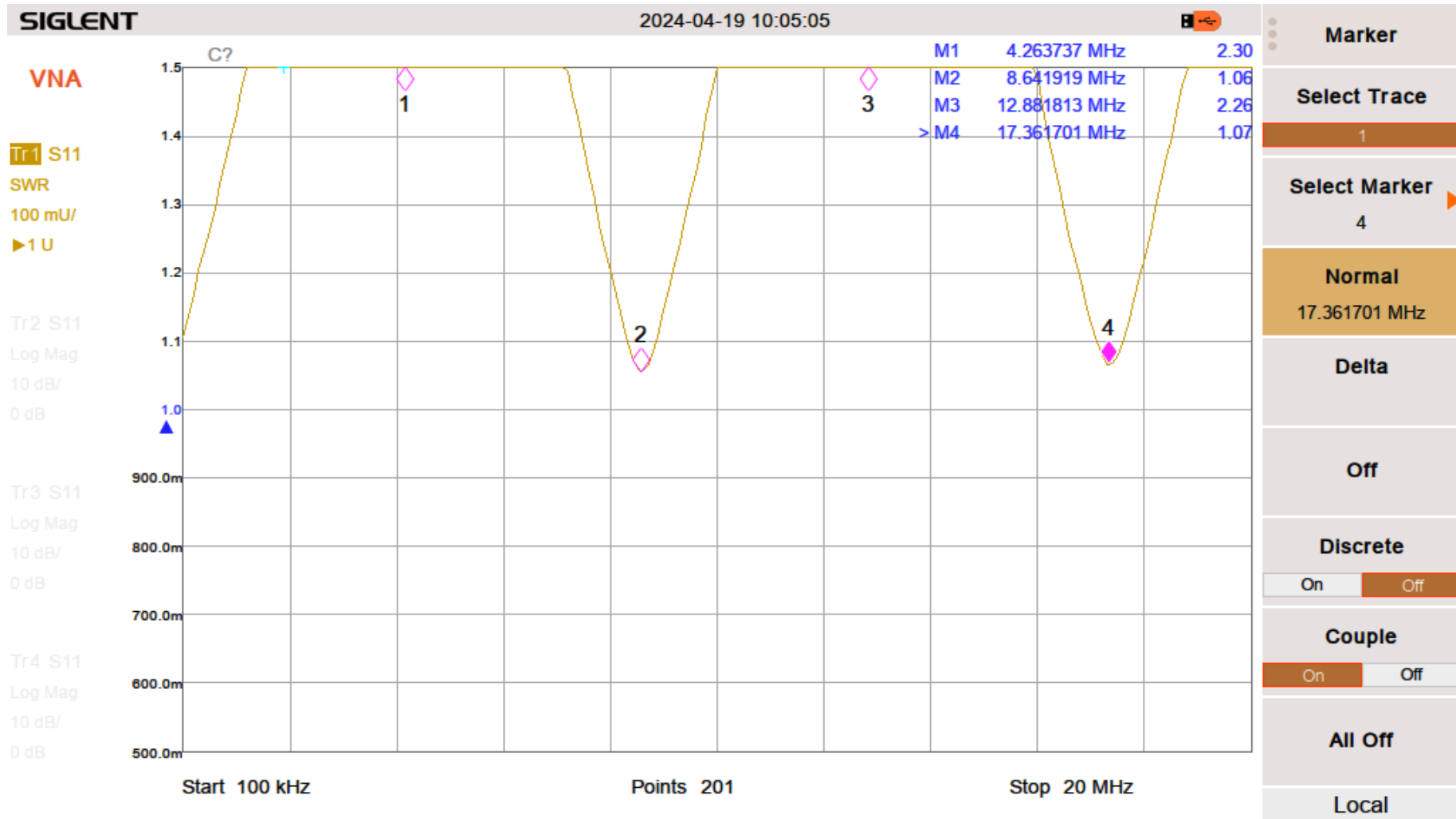


S11 - Messung (offen)

Helmut – DL2AVH

Serba 4/2024

15m – SAT Kabel 75Ohm ohne Übertrager

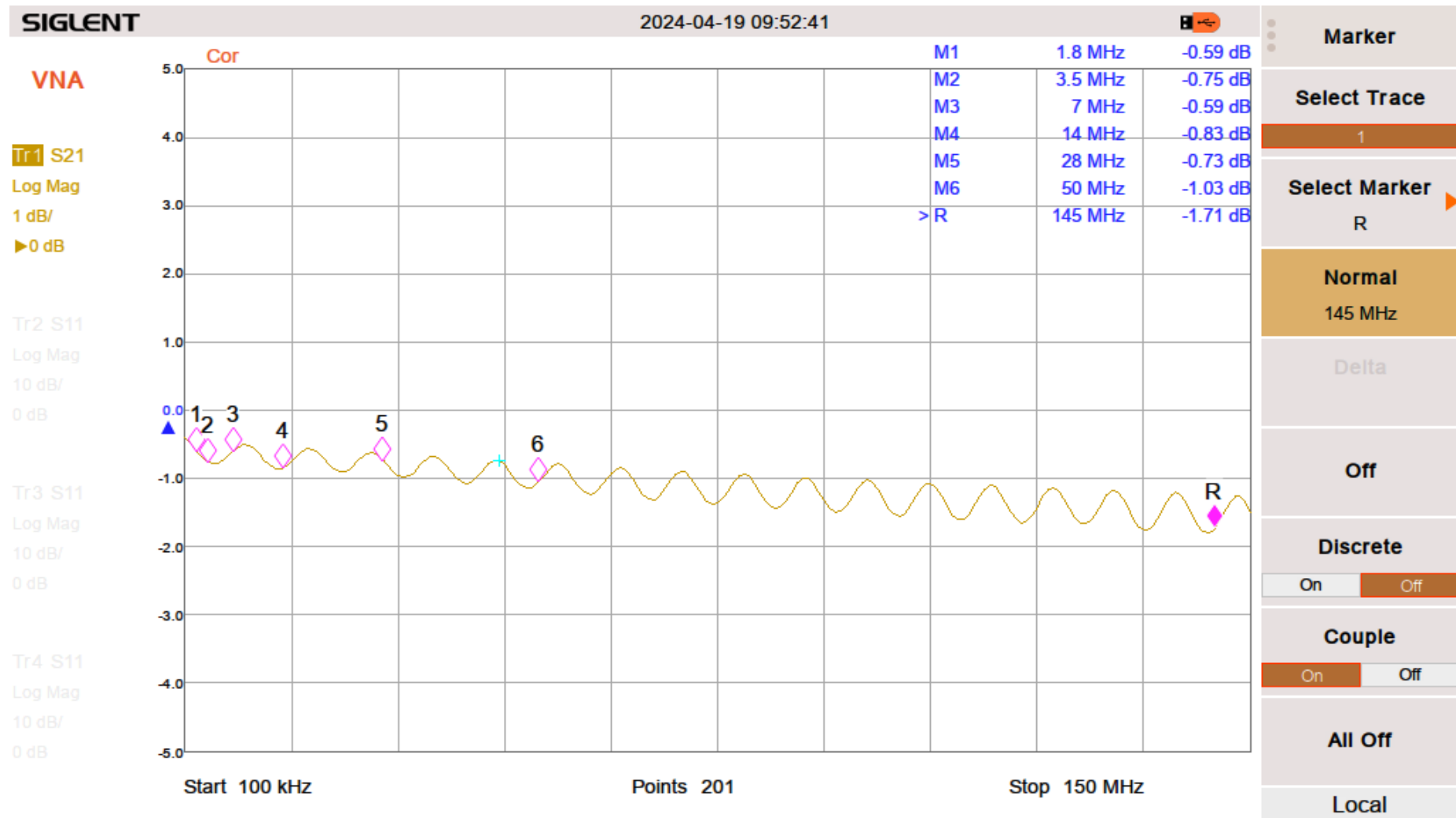


SWR - Messung

Helmut – DL2AVH

Serba 4/2024

15m – SAT Kabel 75Ohm ohne Übertrager

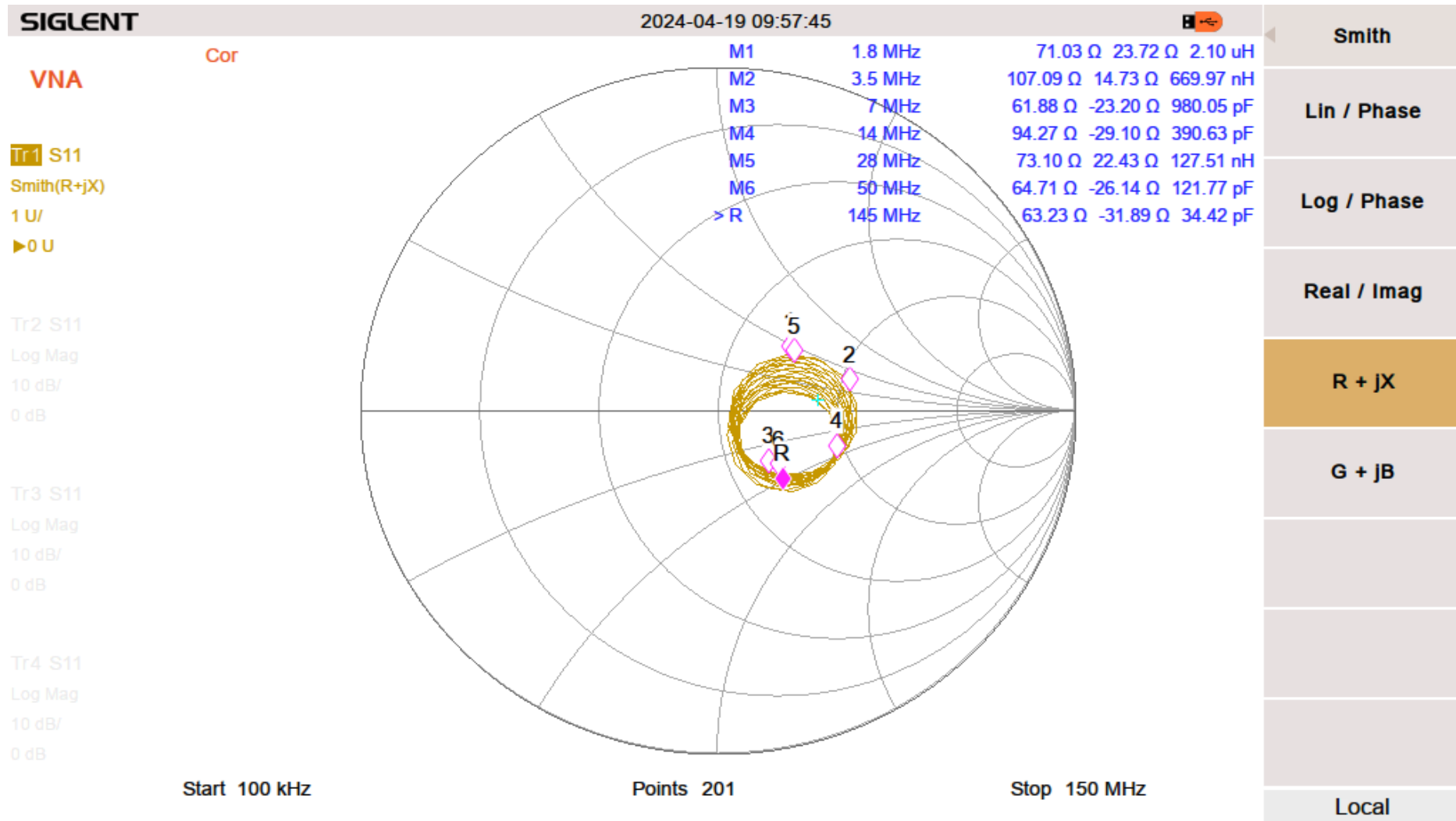


S21 - Messung

Helmut – DL2AVH

Serba 4/2024

15m – SAT Kabel 75Ohm ohne Übertrager

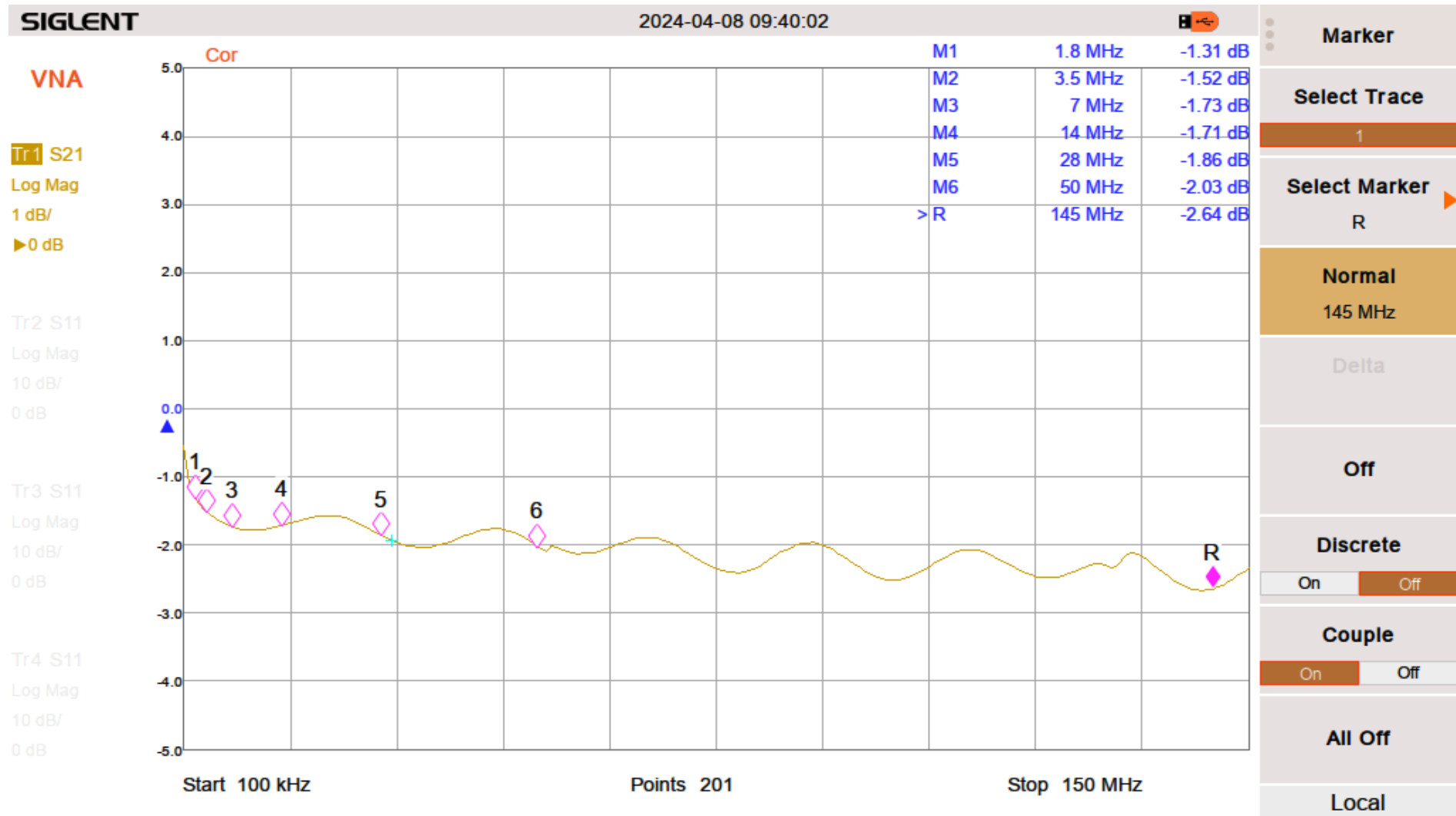


S11 - Messung

Helmut – DL2AVH

Serba 4/2024

5m - BNC Connector Cable (RG58)?

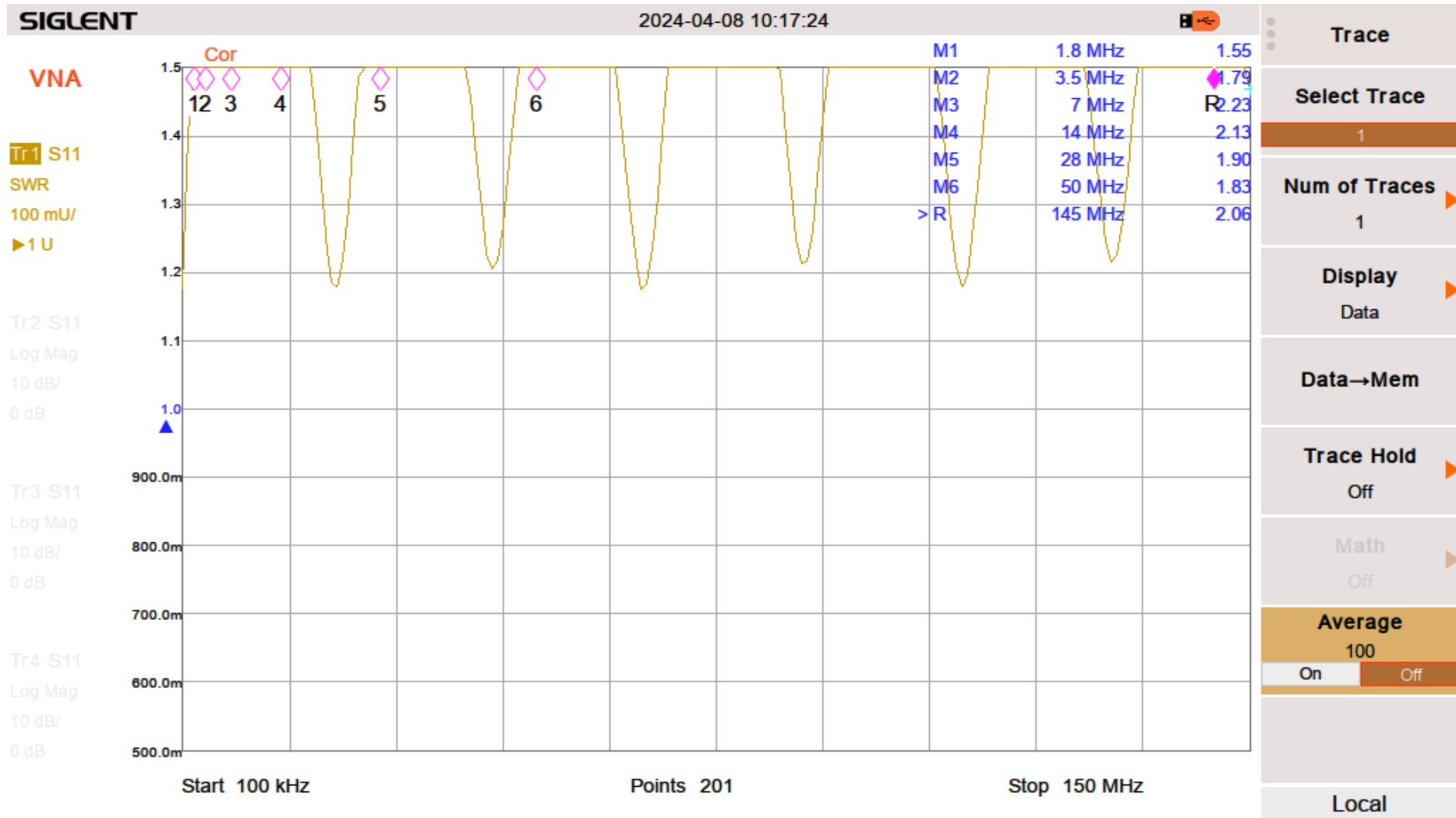


S21 - Messung

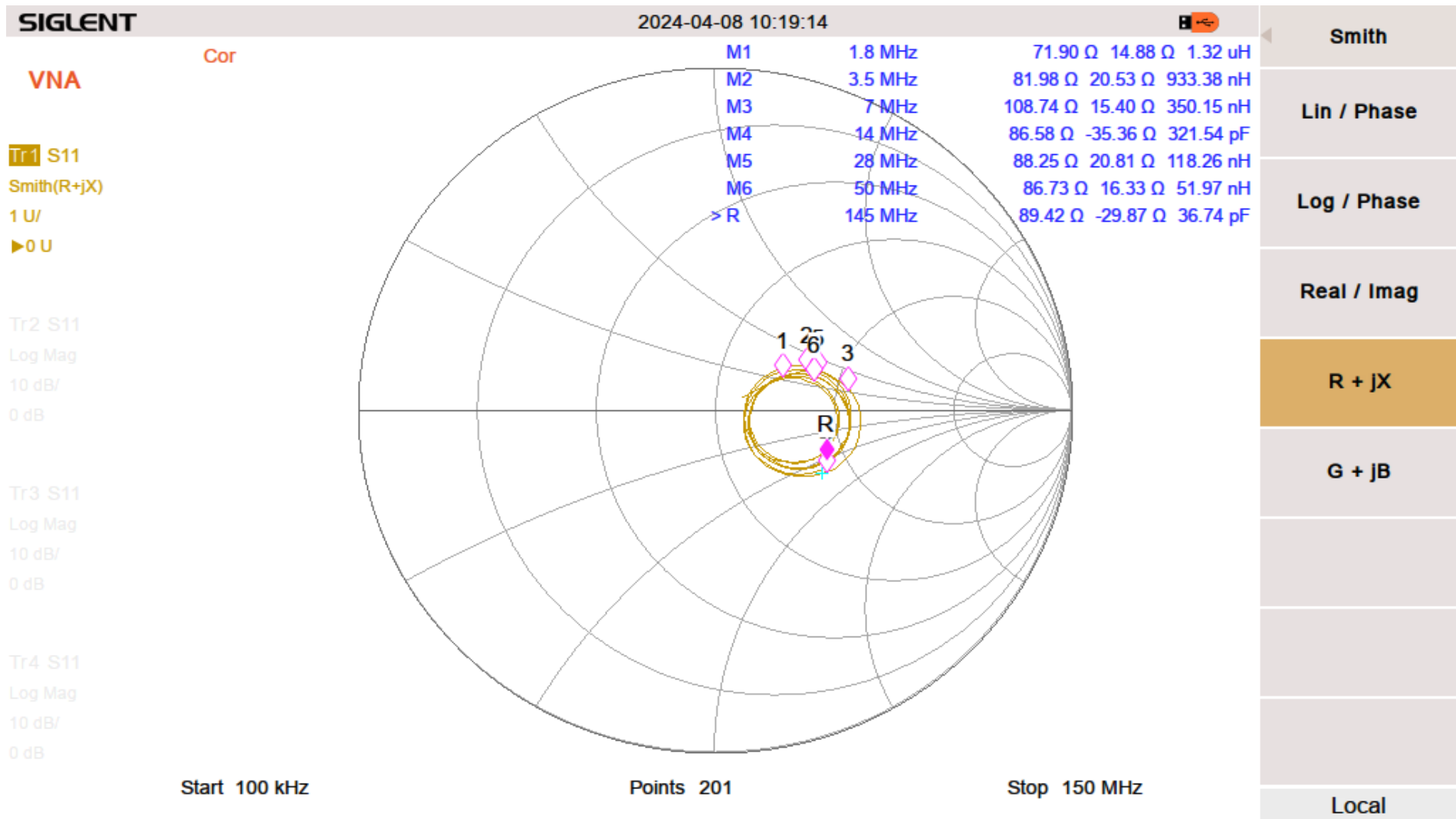
Helmut – DL2AVH

Serba 4/2024

5m - BNC Connector Cable (RG58)?



5m - BNC Connector Cable (RG58)?

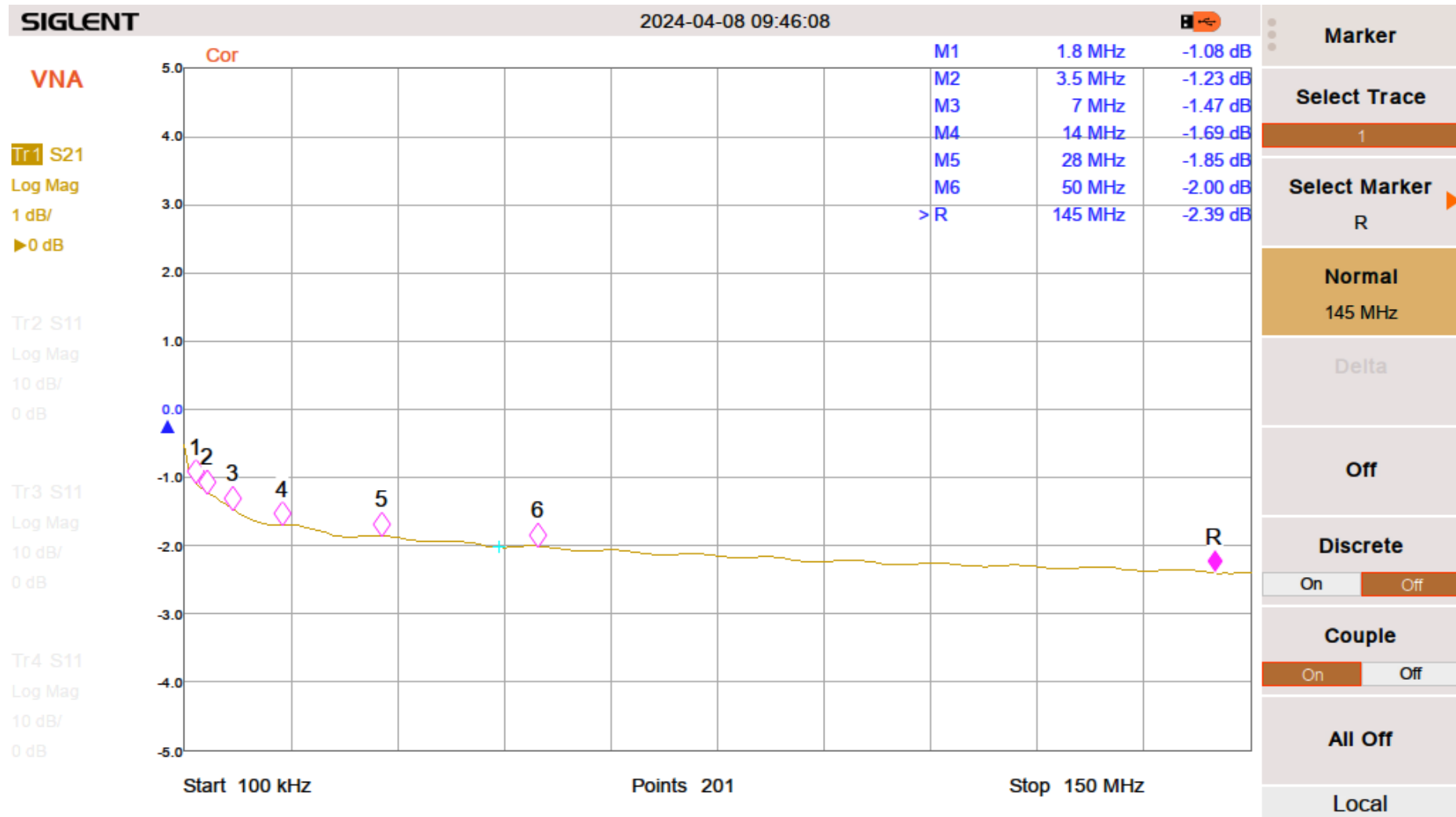


S11 - Messung

Helmut – DL2AVH

Serba 4/2024

10m – RG58 Kabel 50Ohm?

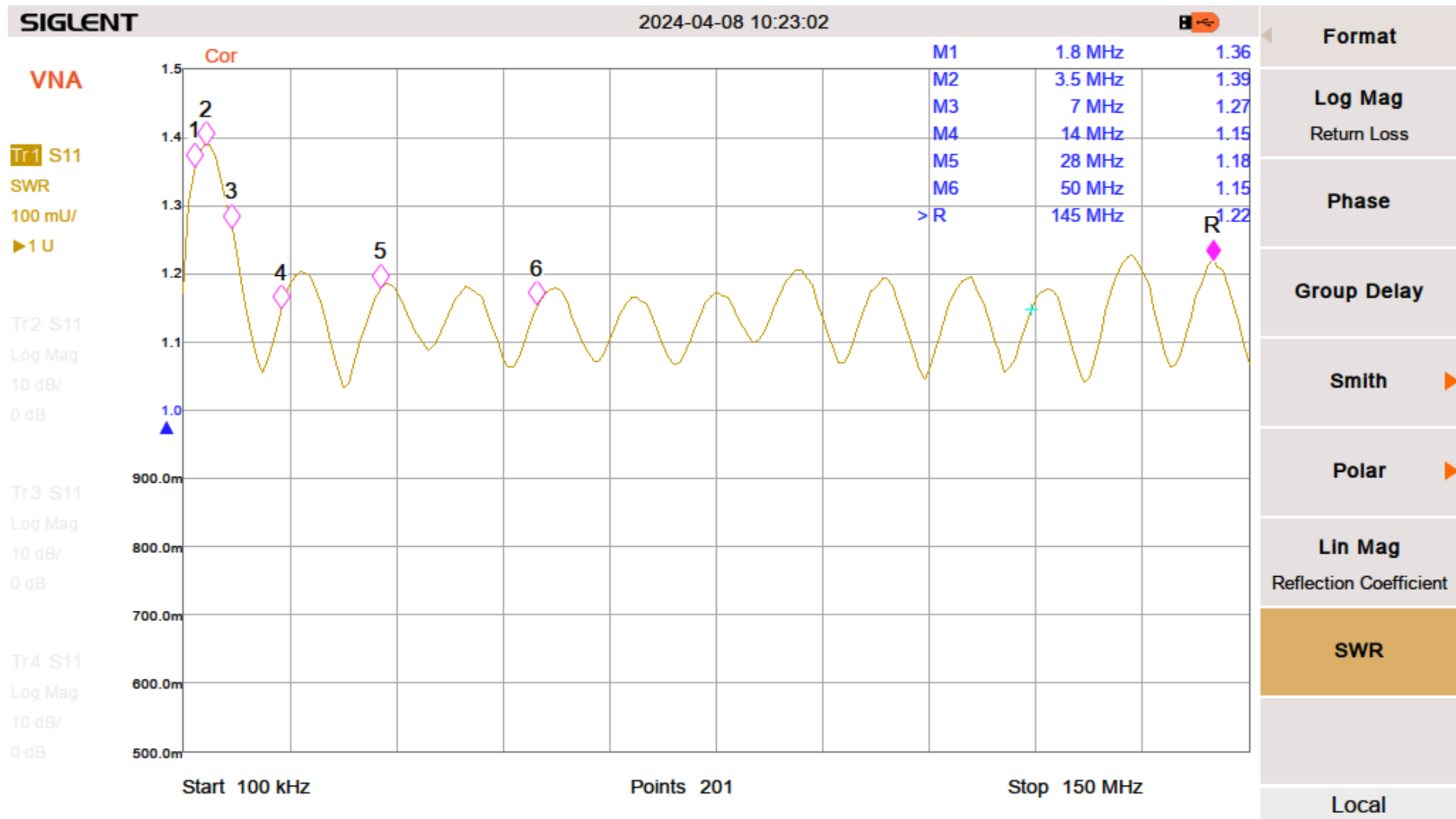


S21 - Messung

Helmut – DL2AVH

Serba 4/2024

10m – RG58 Kabel 50Ohm?

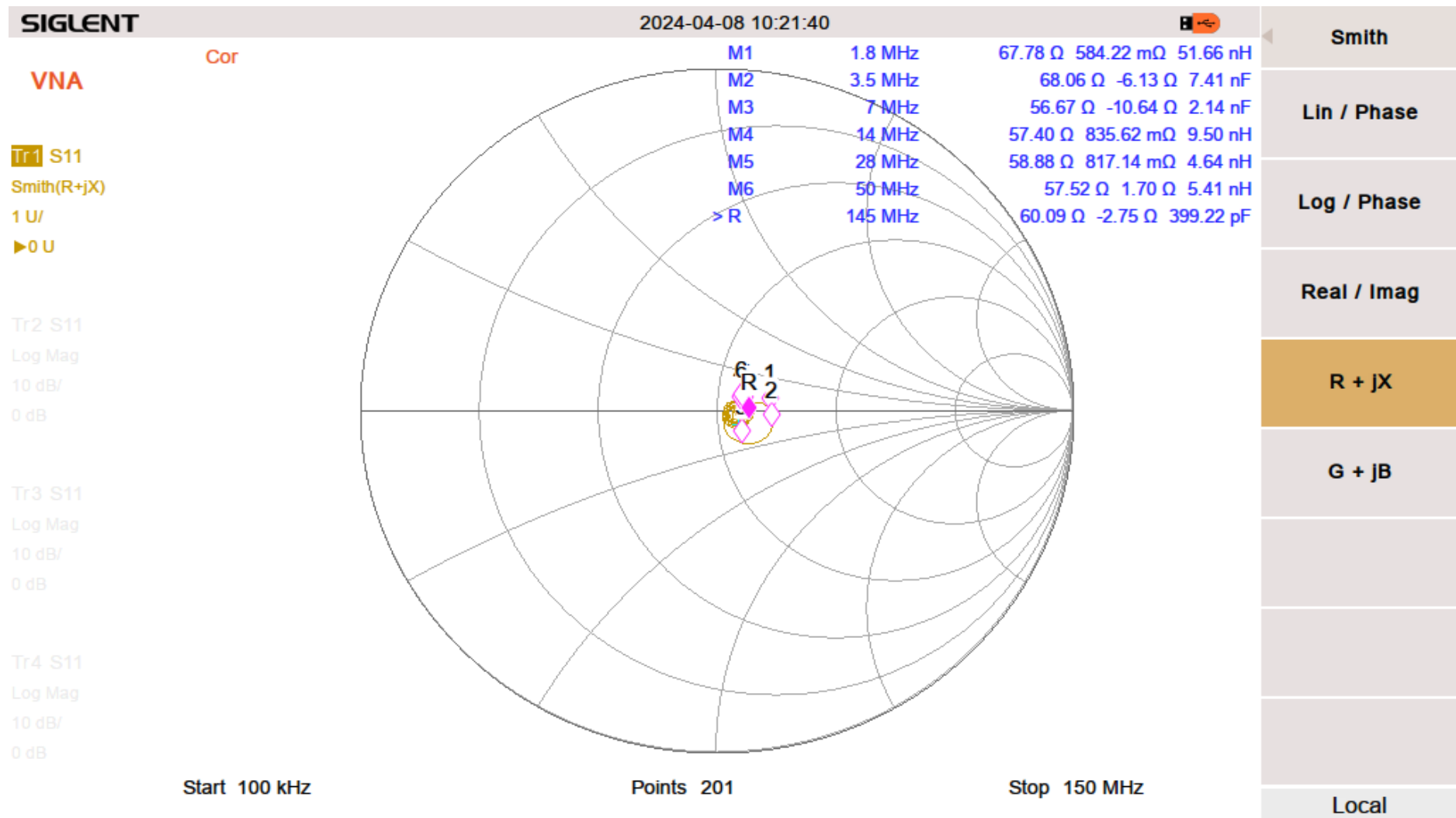


SWR - Messung

Helmut – DL2AVH

Serba 4/2024

10m – RG58 Kabel 50Ohm?

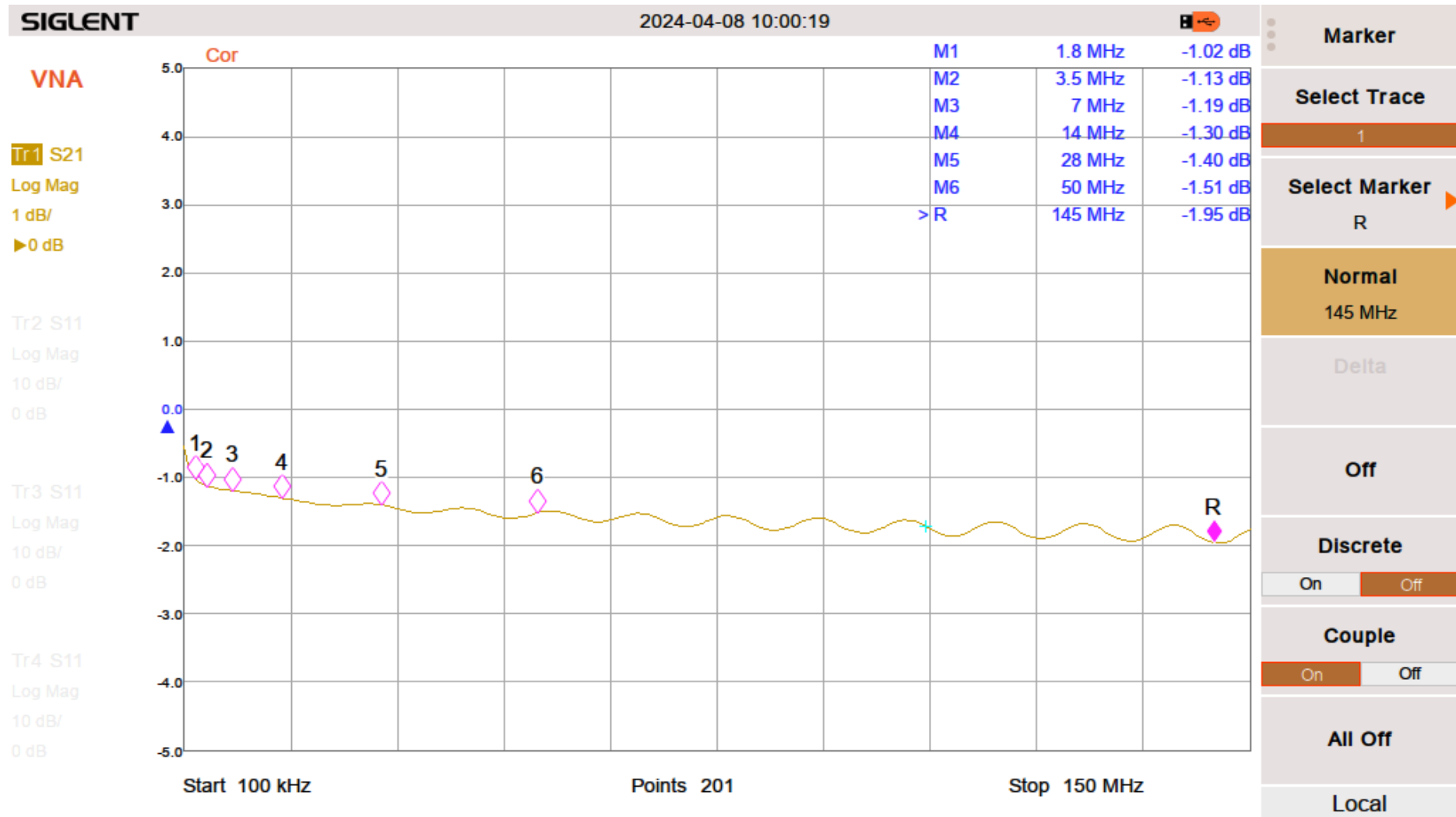


S11 - Messung

Helmut – DL2AVH

Serba 4/2024

10m – RG58 Kabel 50Ohm?

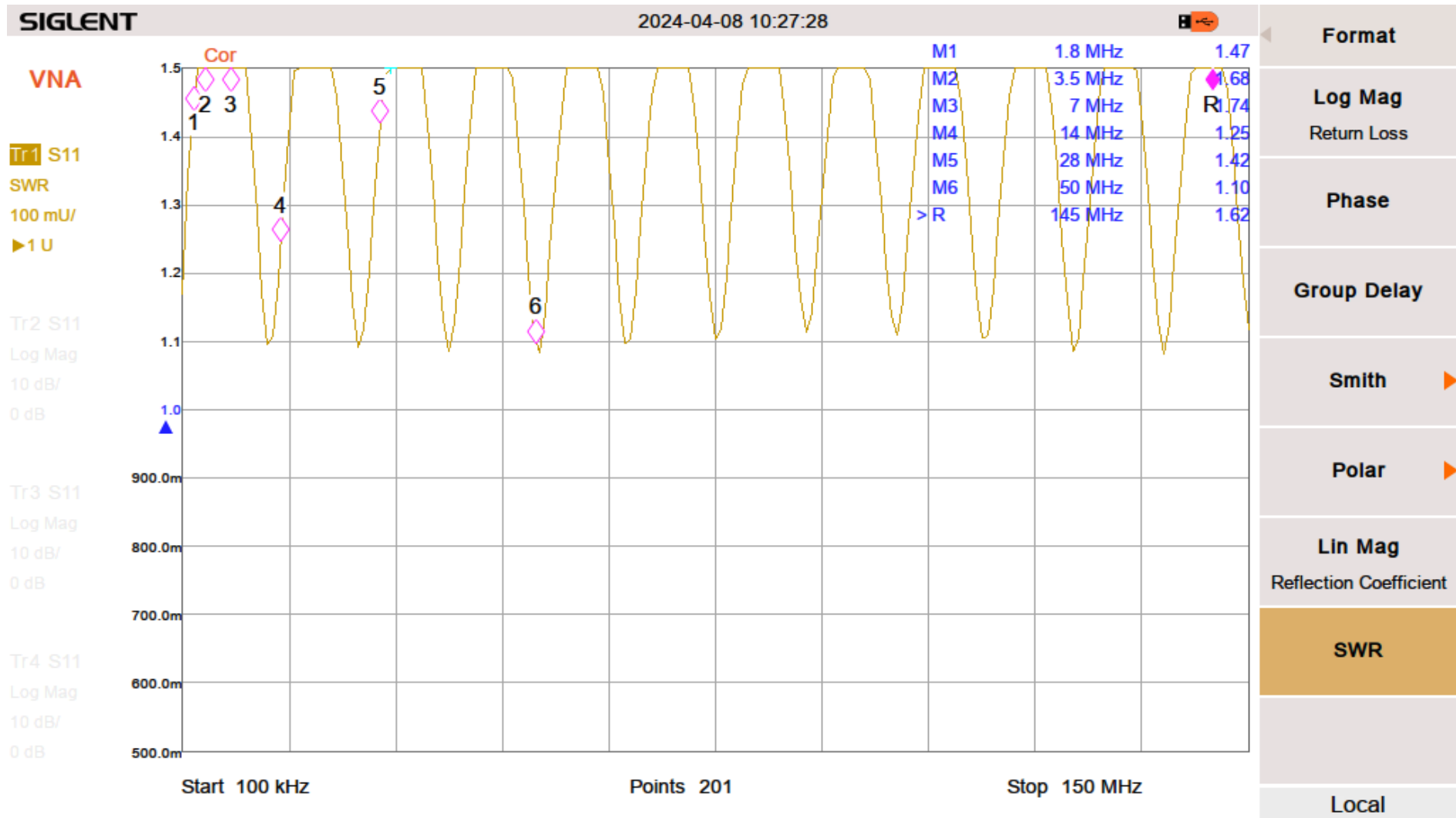


S21 - Messung

Helmut – DL2AVH

Serba 4/2024

10m – RG58 Kabel 50Ohm?

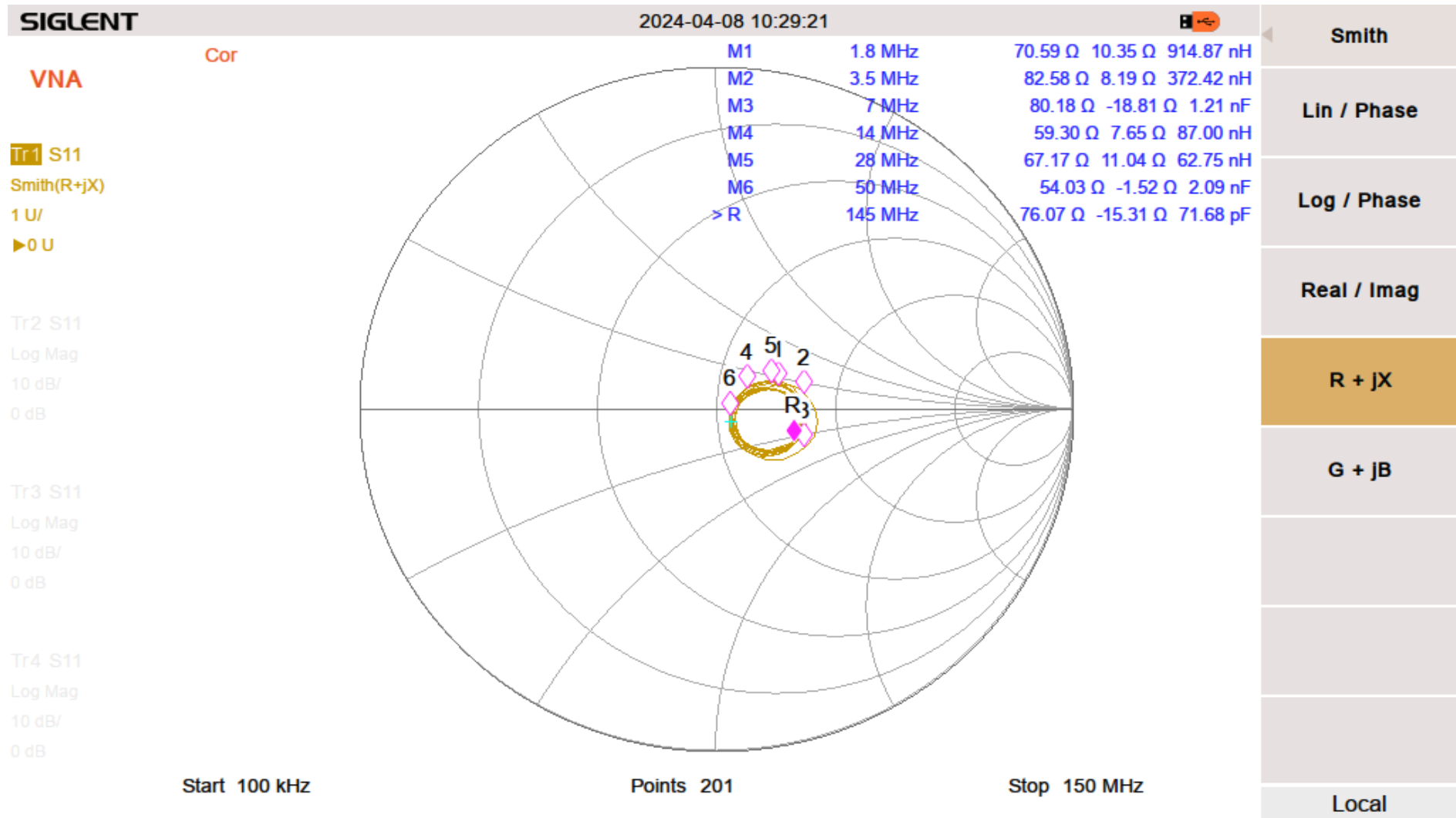


SWR - Messung

Helmut – DL2AVH

Serba 4/2024

10m – RG58 Kabel 50Ohm?

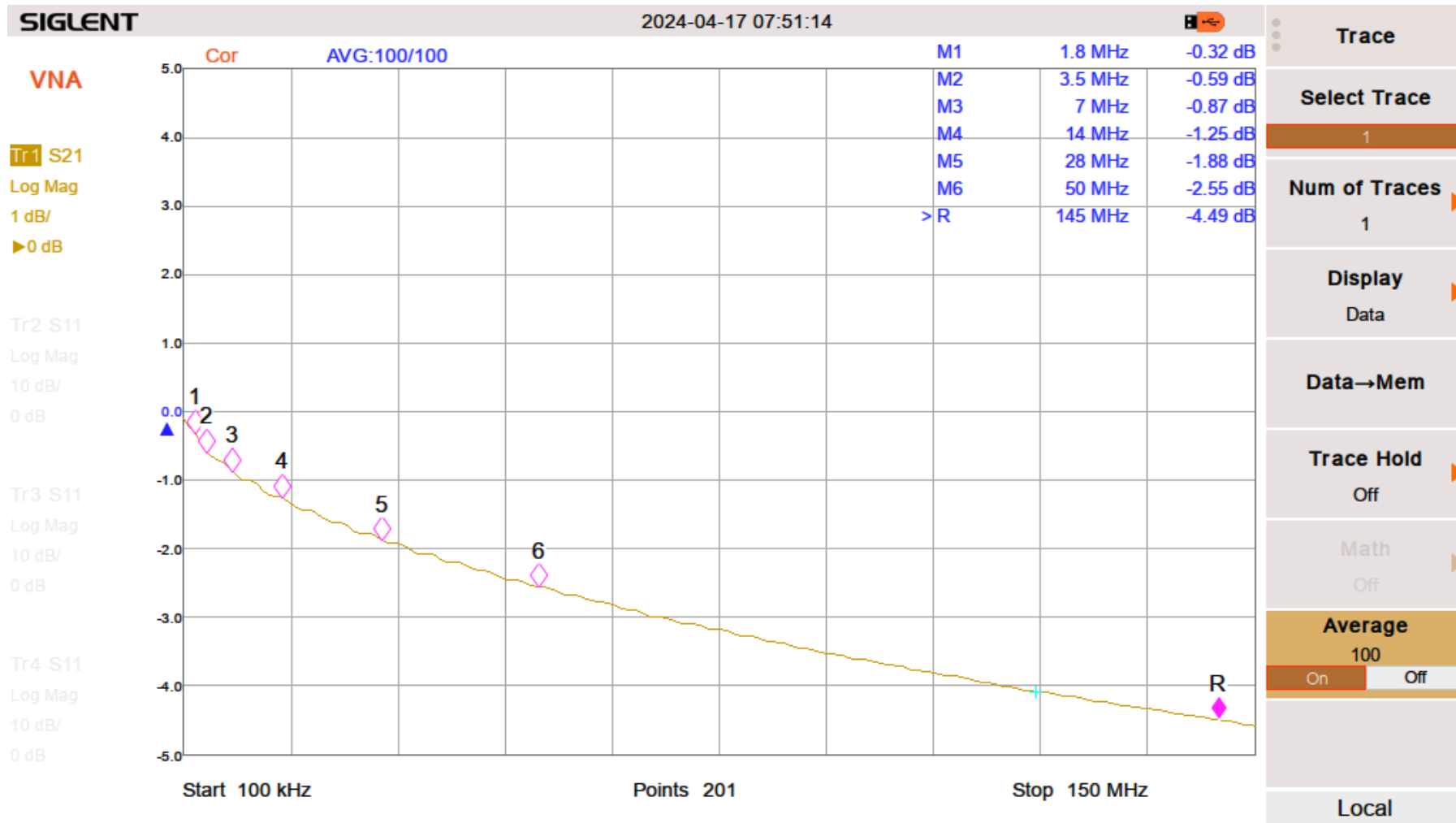


S11 - Messung

Helmut – DL2AVH

Serba 4/2024

25m – RG58 Kabel 50Ohm

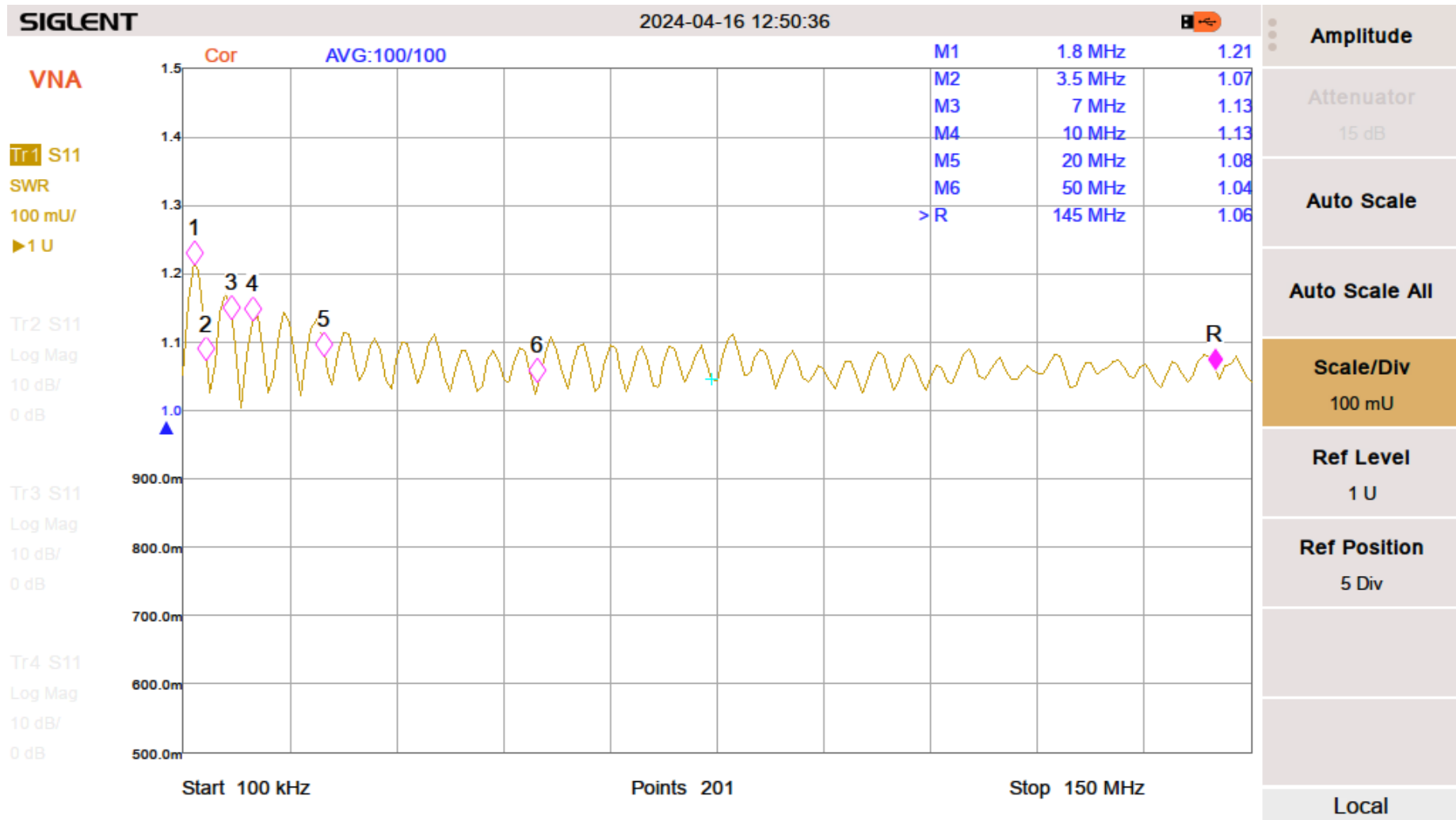


S21 - Messung

Helmut – DL2AVH

Serba 4/2024

25m – RG58 Kabel 50Ohm

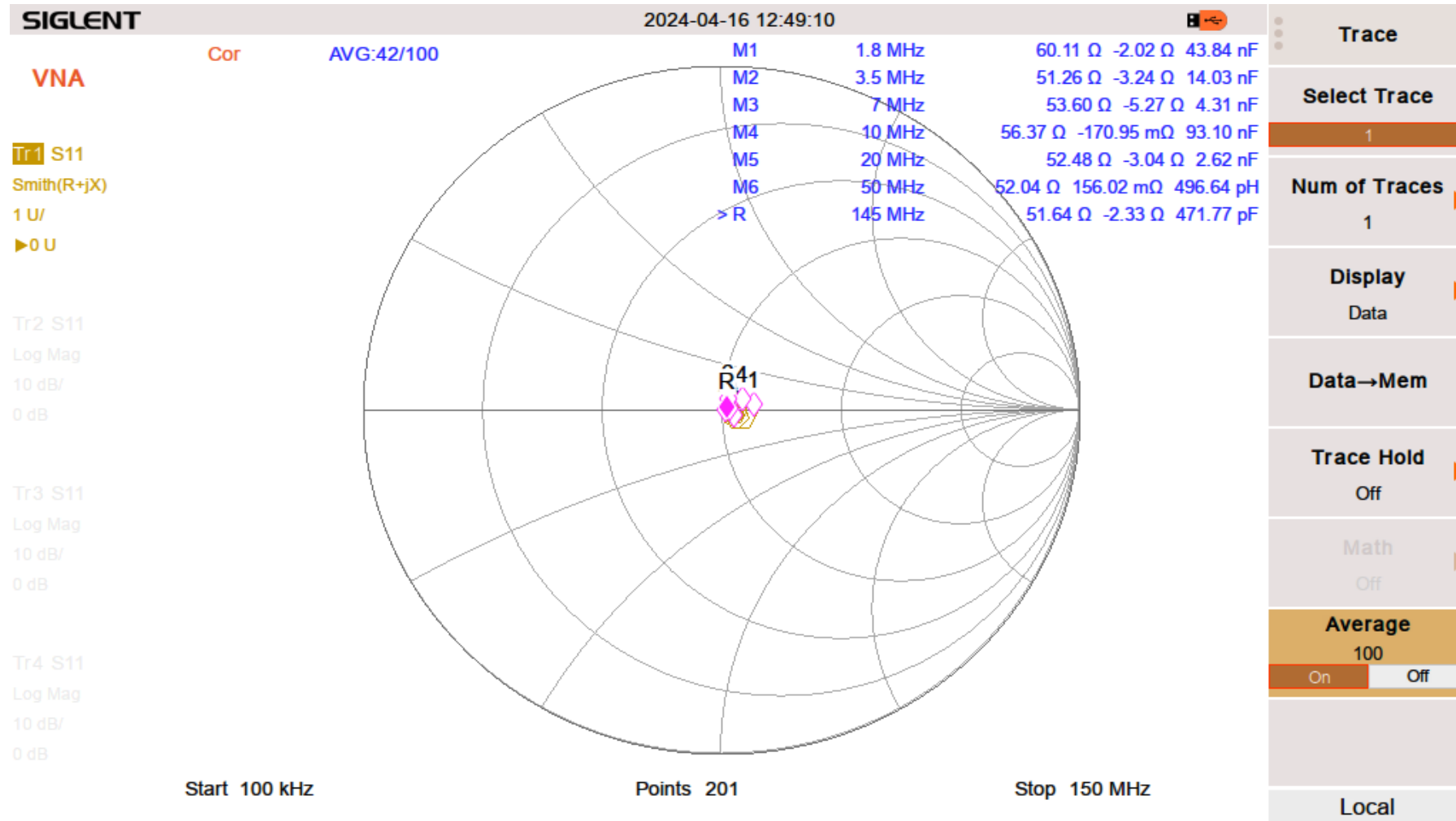


SWR - Messung

Helmut – DL2AVH

Serba 4/2024

25m – RG58 Kabel 50Ohm

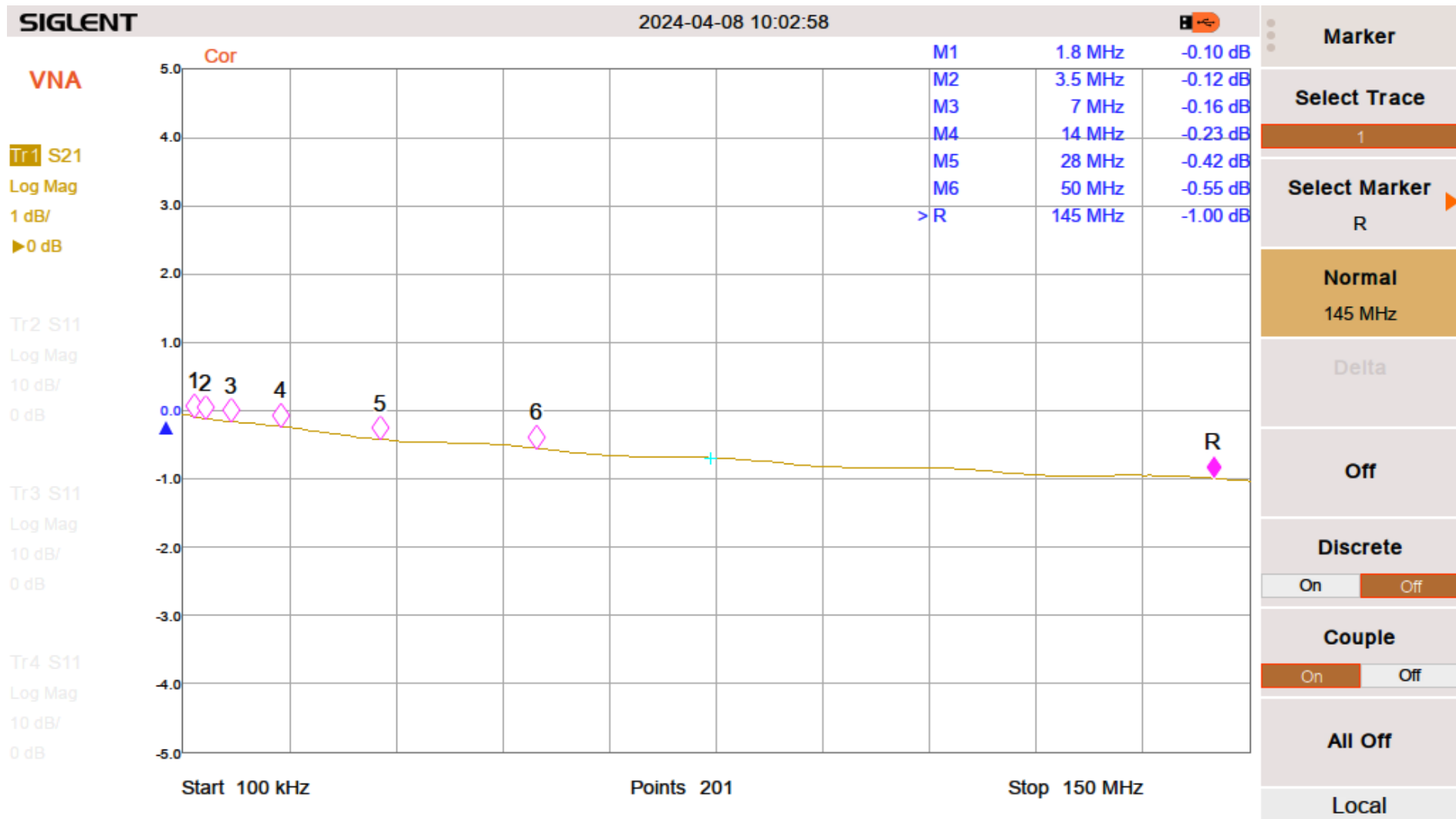


S11 - Messung

Helmut – DL2AVH

Serba 4/2024

3m – RG316 Kabel 50Ohm

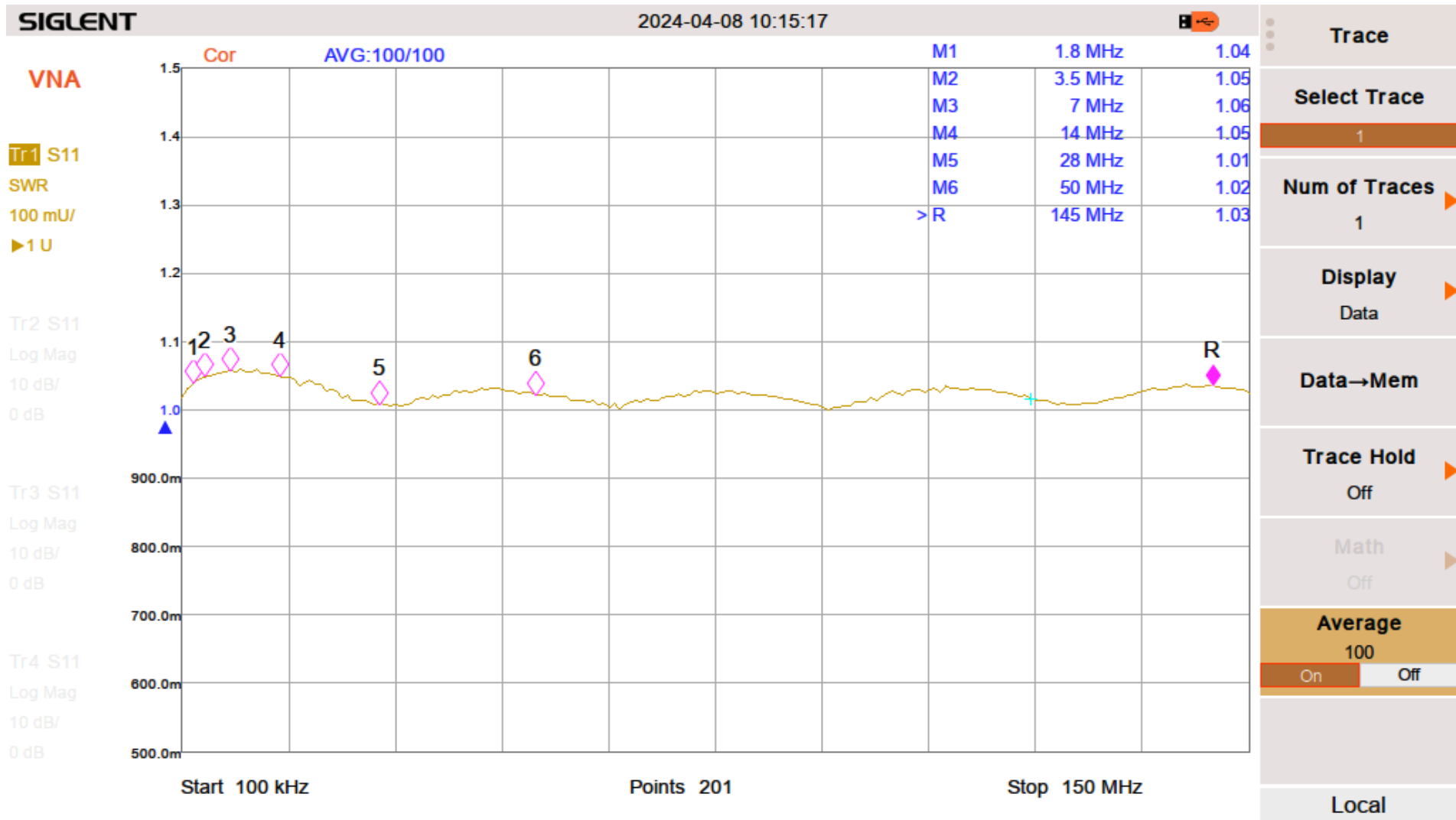


S21 - Messung

Helmut – DL2AVH

Serba 4/2024

3m – RG316 Kabel 50Ohm

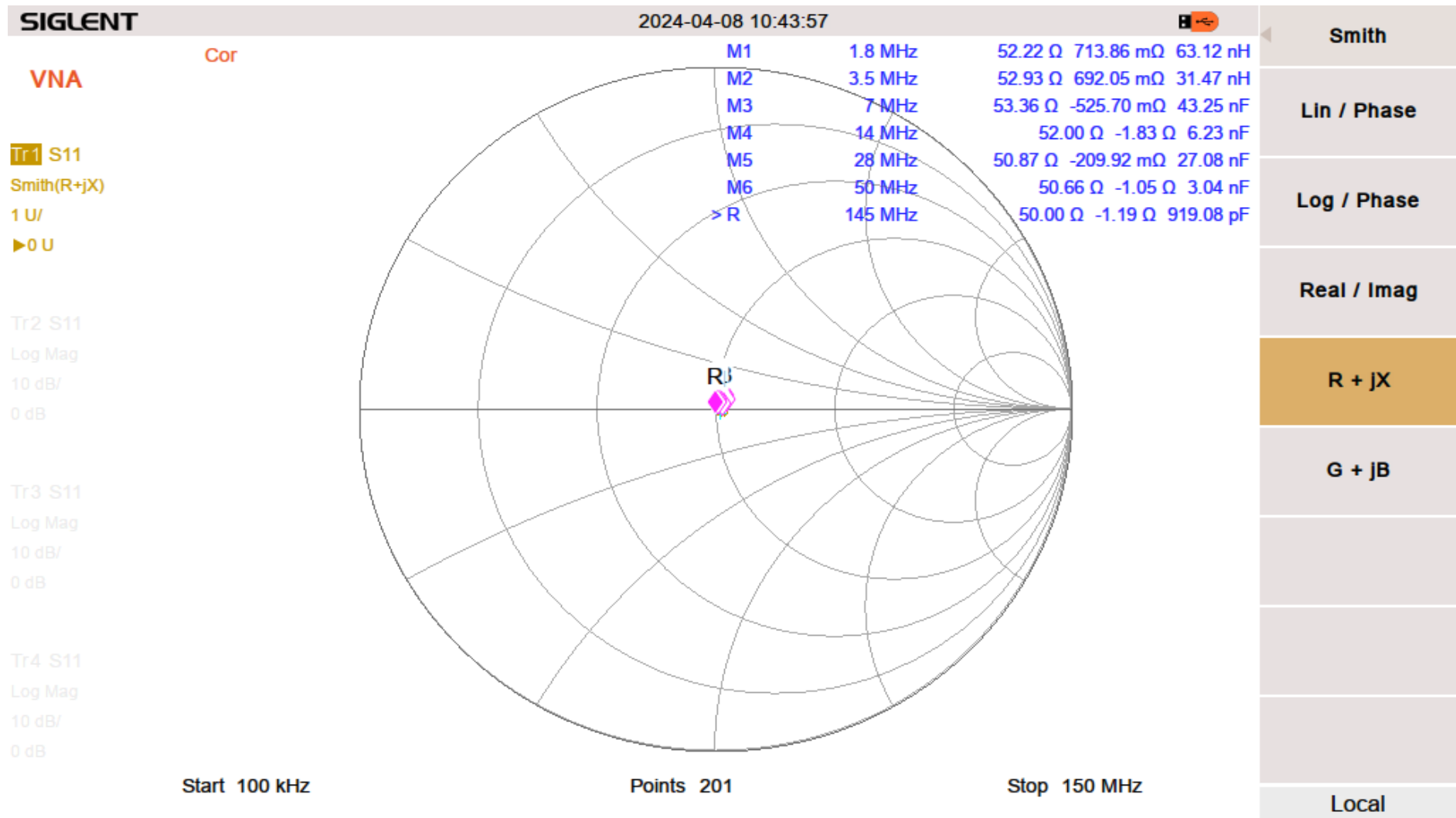


SWR - Messung

Helmut – DL2AVH

Serba 4/2024

3m – RG316 Kabel 50Ohm

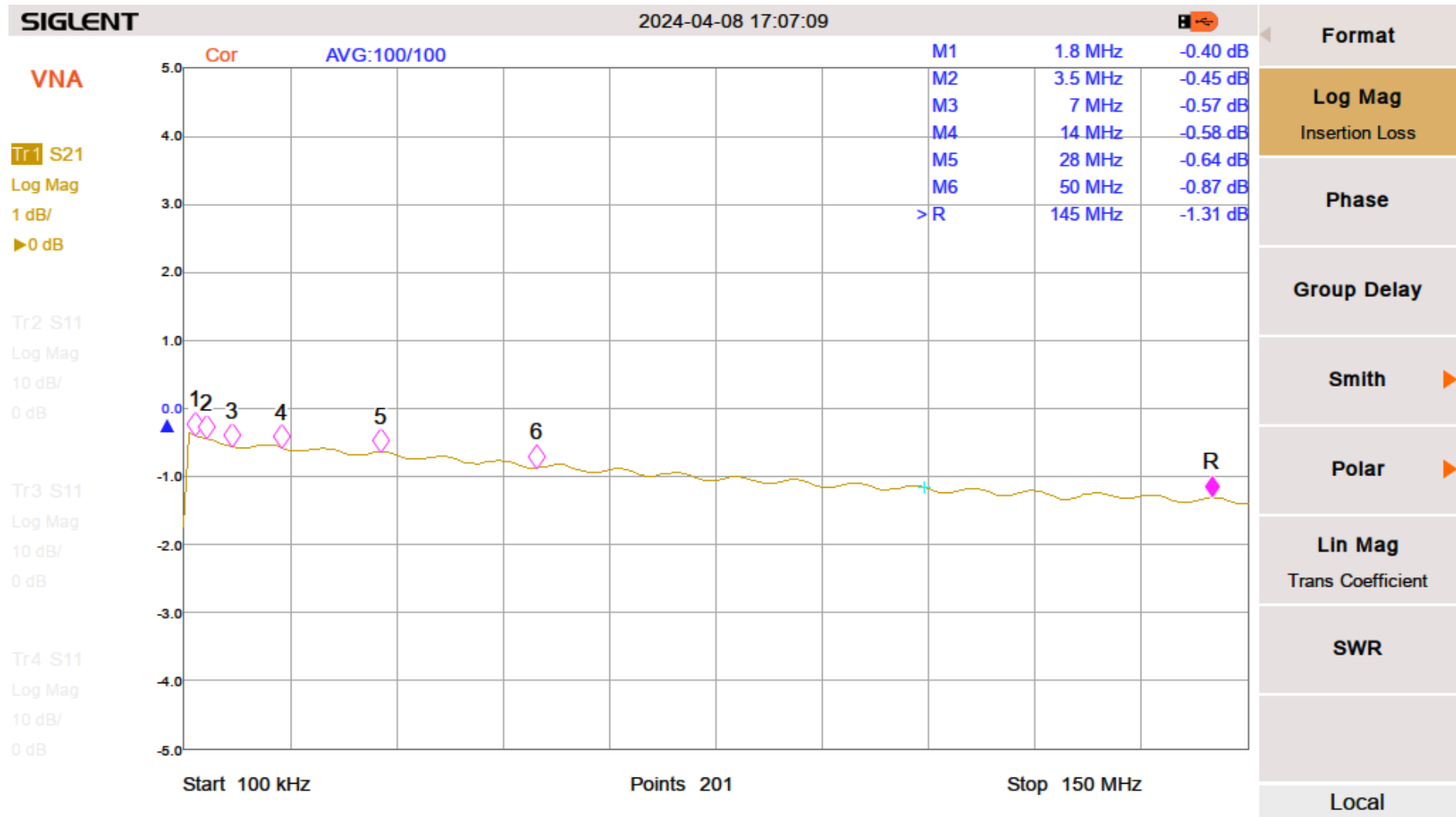


S11 - Messung

Helmut – DL2AVH

Serba 4/2024

15m – SAT Kabel 750hm + 2 x Übertrager

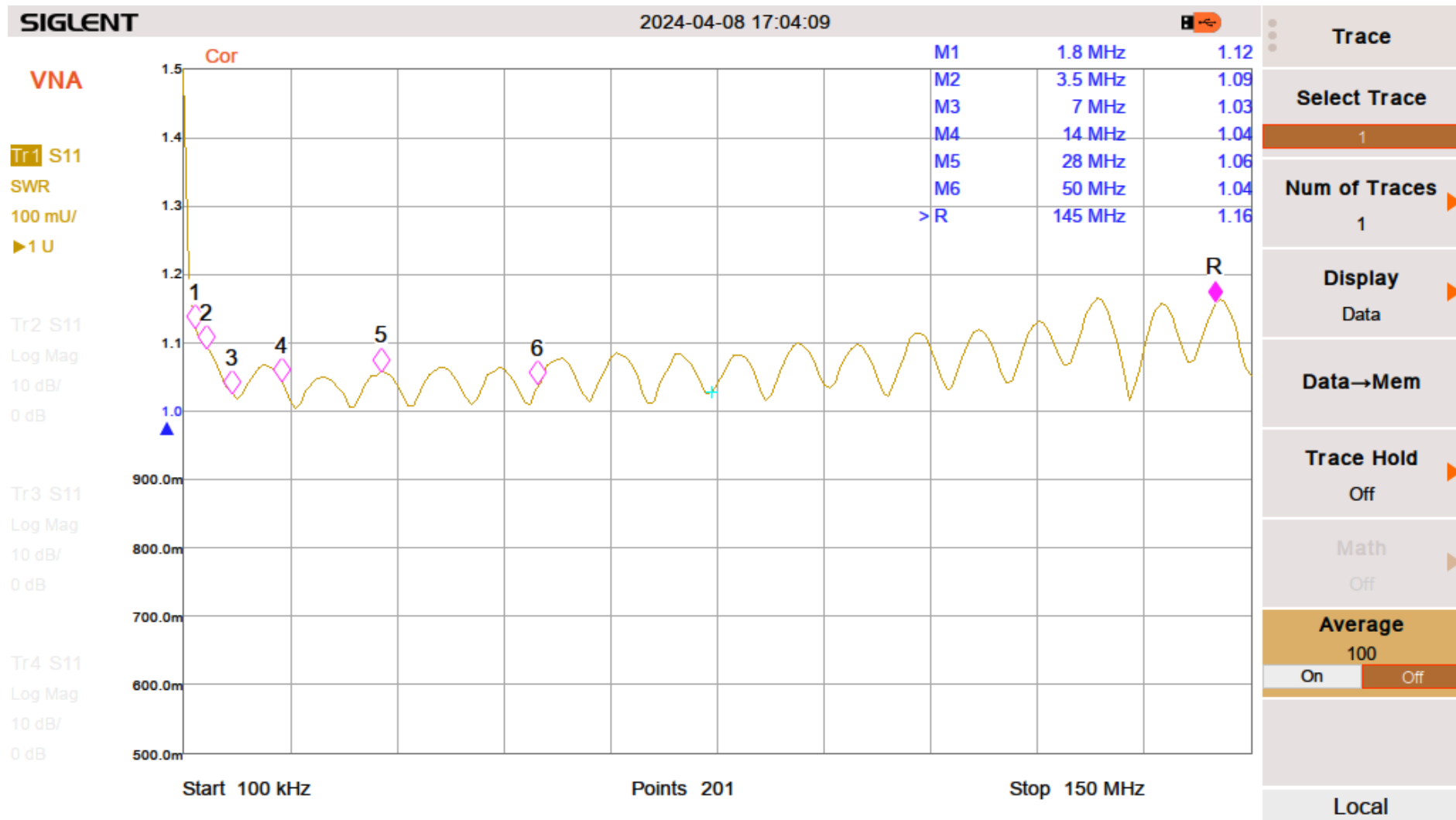


S21 - Messung

Helmut – DL2AVH

Serba 4/2024

15m – SAT Kabel 750hm + 2 x Übertrager

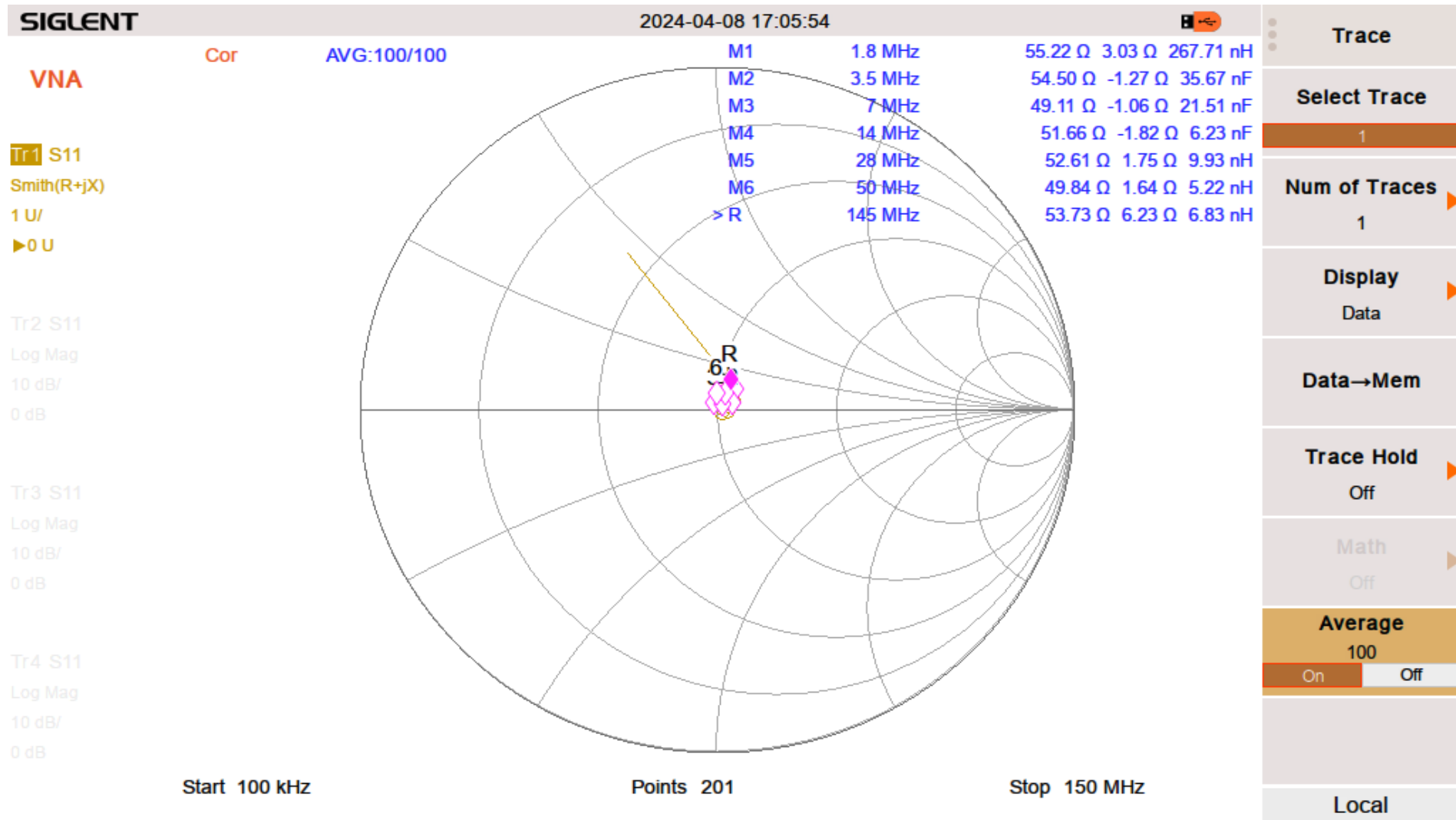


SWR - Messung

Helmut – DL2AVH

Serba 4/2024

15m – SAT Kabel 750hm + 2 x Übertrager

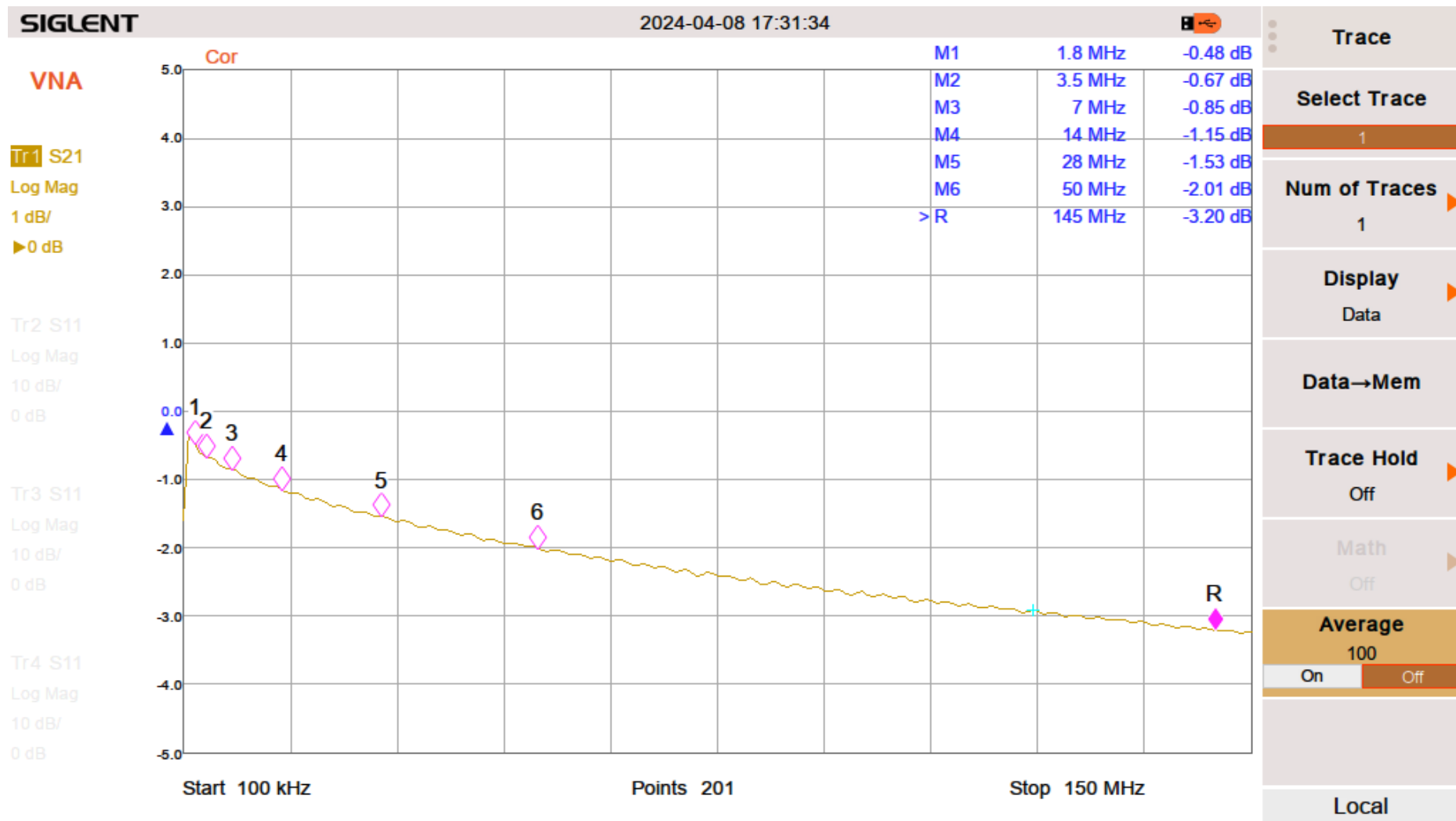


S11 - Messung

Helmut – DL2AVH

Serba 4/2024

40m – SAT Kabel 750hm + 2 x Übertrager

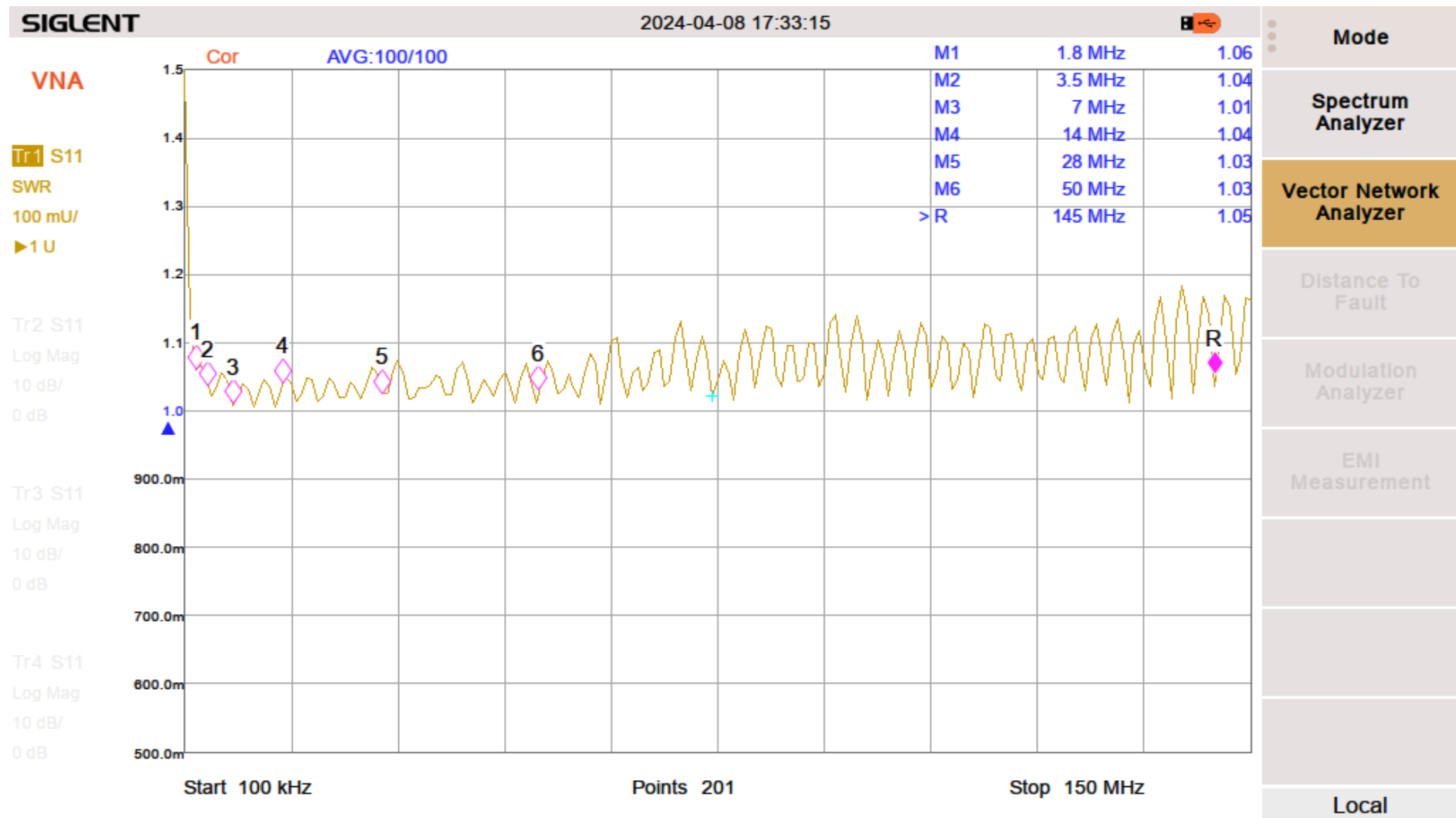


S21 - Messung

Helmut – DL2AVH

Serba 4/2024

40m – SAT Kabel 750hm + 2 x Übertrager

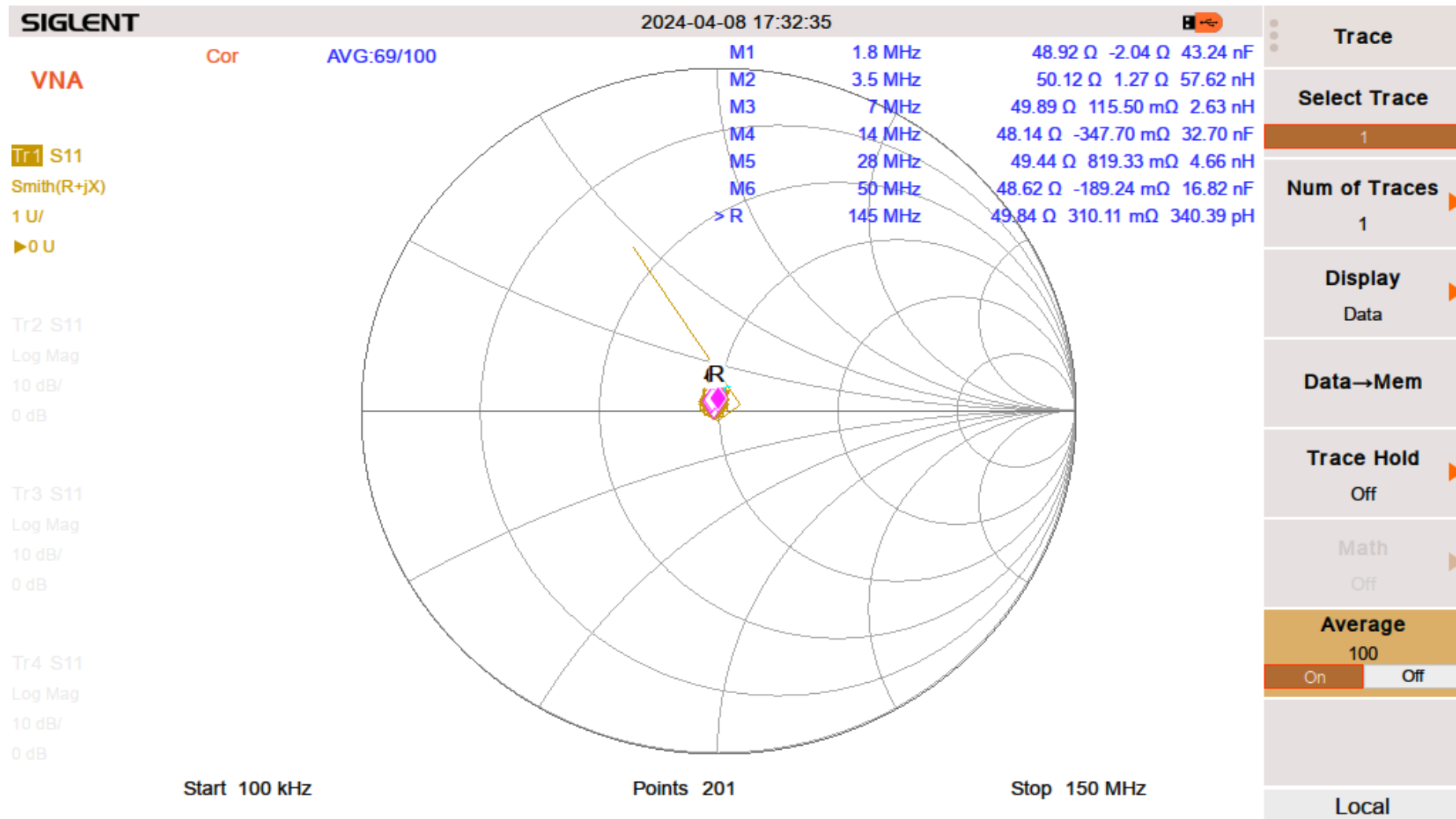


SWR - Messung

Helmut – DL2AVH

Serba 4/2024

40m – SAT Kabel 750hm + 2 x Übertrager

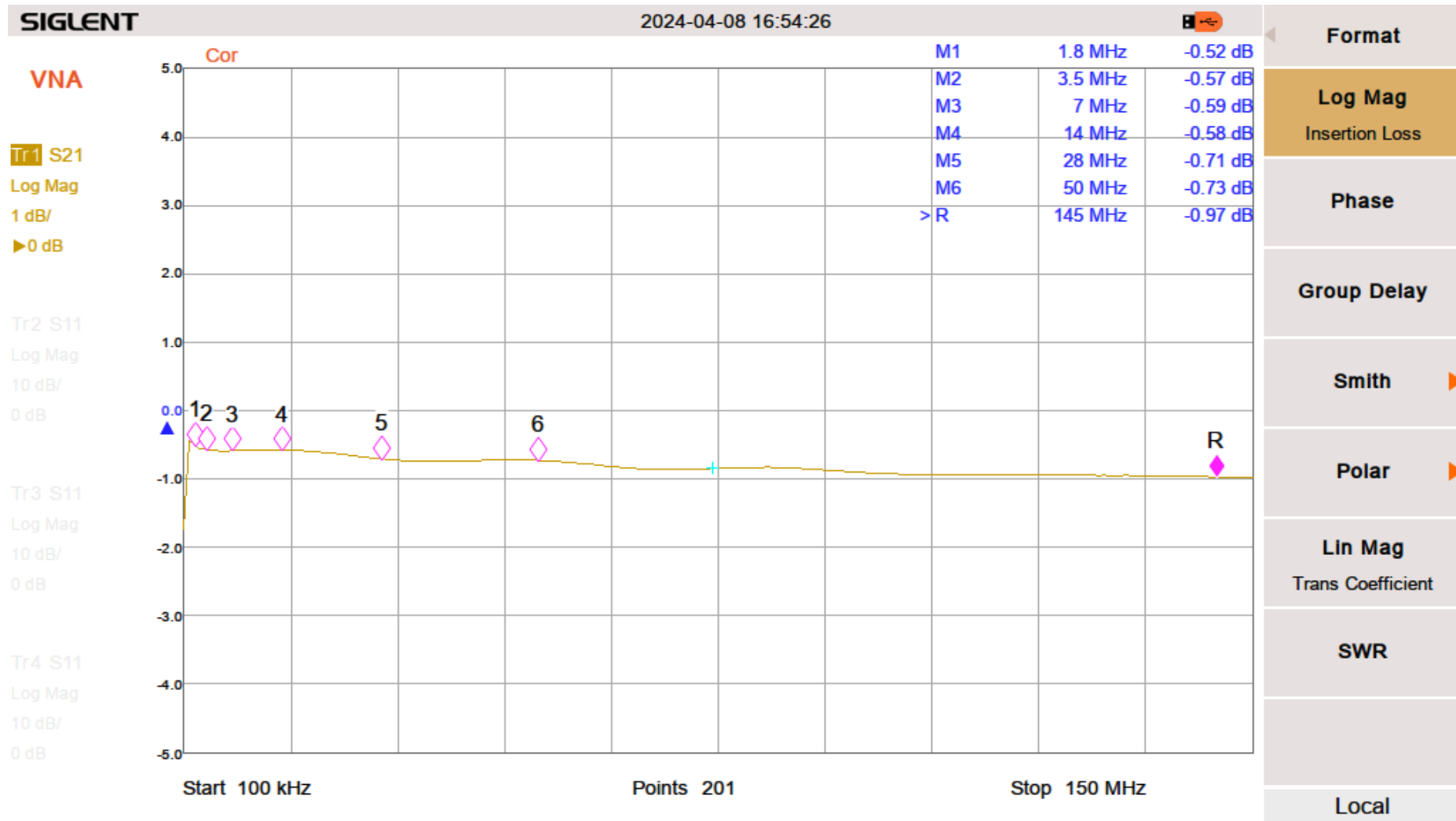


S11 - Messung

Helmut – DL2AVH

Serba 4/2024

3m – SAT Kabel 75Ohm (Baumarkt) + 2 x Übertrager

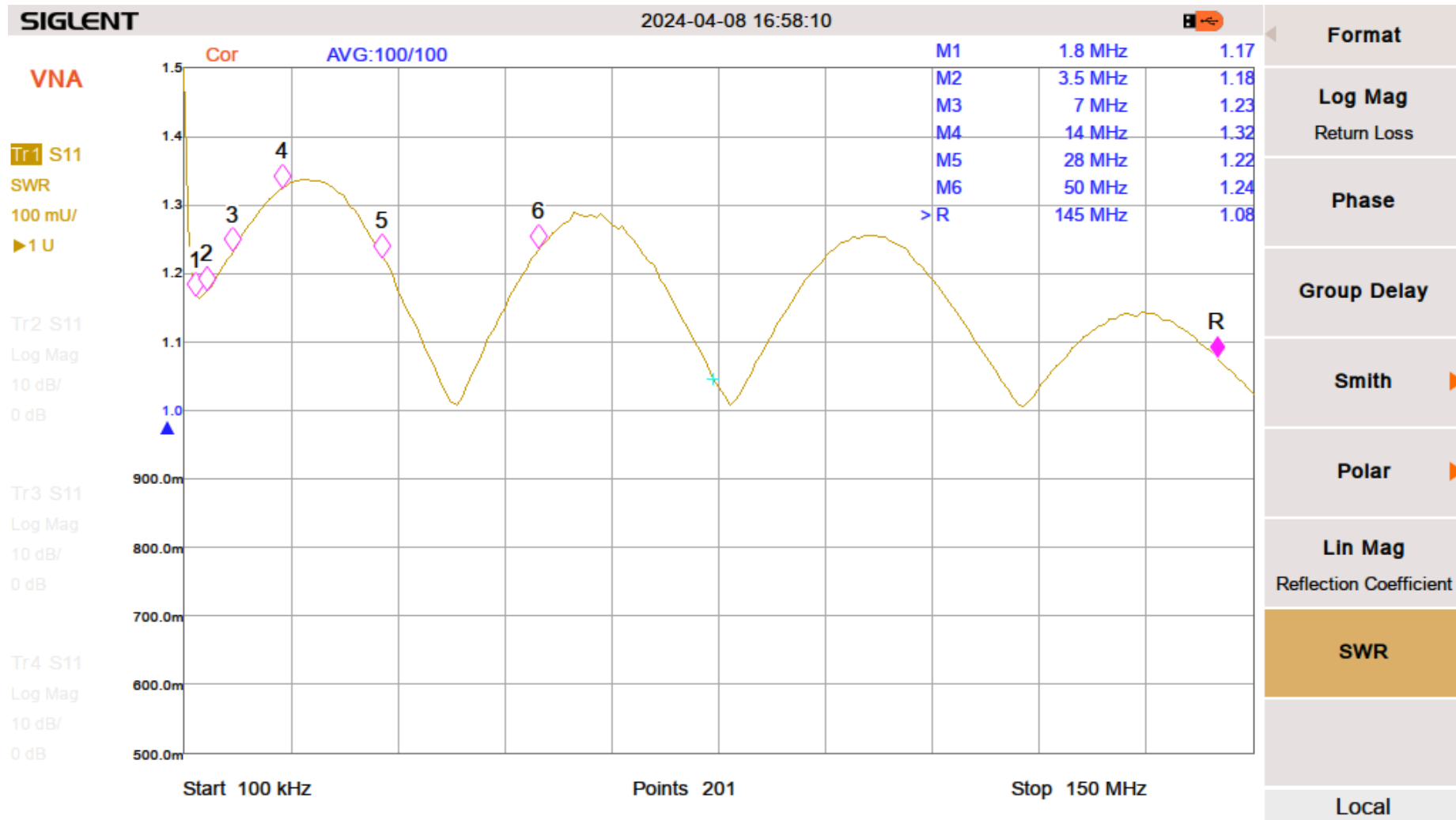


S21 - Messung

Helmut – DL2AVH

Serba 4/2024

3m – SAT Kabel 75Ohm (Baumarkt) + 2 x Übertrager

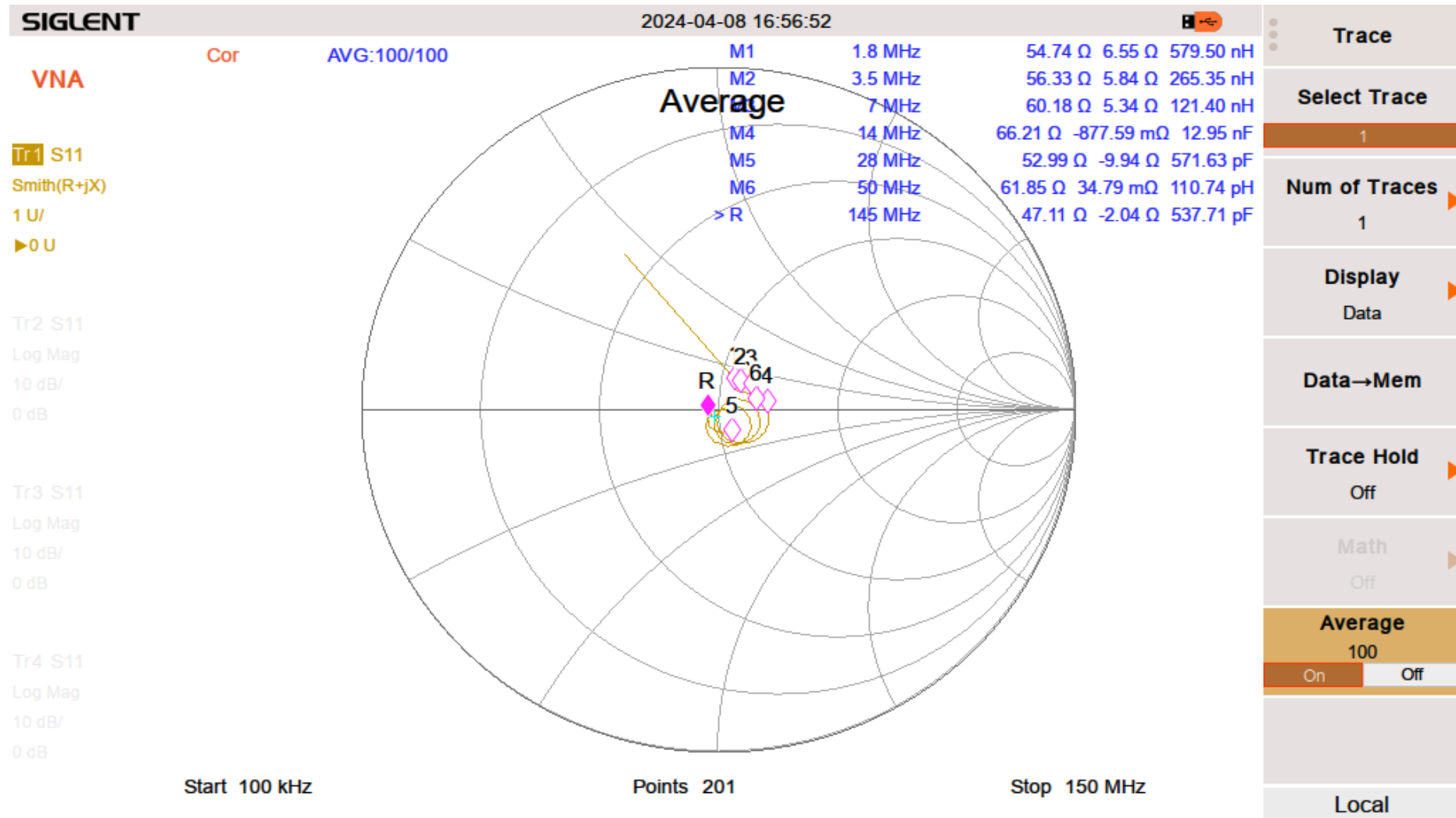


SWR - Messung

Helmut – DL2AVH

Serba 4/2024

3m – SAT Kabel 750hm (Baumarkt) + 2 x Übertrager



S11 - Messung

Helmut – DL2AVH

Serba 4/2024

Vergleich RG58 – 50Ohm mit SAT – Kabel + 2 x Übertrager

	1,8MHz	3,5MHz	7MHz	14MHz	28MHz	50MHz	144MHz
RG58 – 50Ohm							
25m	-0.32dB	-0,59dB	-0,87dB	-1,25dB	-1,88dB	-2,55dB	-4,49dB
50m	-0.64dB	-1,18dB	-1,74dB	-2,50dB	-3,76dB	-5,10dB	-8,98dB
100m	-1,28dB	-2,36dB	-3,48dB	-5,00dB	-7,52dB	-10,2dB	-18,0dB
SAT – Kabel + 2 x Übertrager							
25m	-0,30dB	-0,42dB	-0,53dB	-0,72dB	-0,95dB	-1,25dB	-2,00dB
50m	-0.60dB	-0,84dB	-1,06dB	-1,44dB	-1,90dB	-2,50dB	-4,00dB
100m	-1,20dB	-1,68dB	-2,12dB	-2,88dB	-3,80dB	-5,00dB	-8,00dB