

De resonantiekring is ingesteld op 2.1 kHz

coarse: -1

fine: -1

band pass: 7.05

opdr. 1



power supply

32.3 V

2.70 A

opdr. 3

$$\frac{\delta B_z}{\delta x} = 221 \text{ V} / 5.5$$

$$\delta y = 270 \text{ V} / 5.7 \text{ } \mu\text{T/m}$$

$$\delta z = 955 \text{ V} / 7.35$$

opdr. 4

| | | | |
|-----------|-------|-------|-------|
| 2.110 kHz | 2.100 | 2.127 | 2.135 |
| 2.120 | 2.103 | 2.128 | 2.116 |
| 2.093 | 2.137 | 2.139 | 2.105 |
| 2.086 | 2.123 | 2.105 | 2.090 |
| 2.100 | 2.103 | 2.134 | 2.098 |

opdr. 5 c op 160 ms

$\delta = 0.008$

stopperel: 0.04

Delay 15

t 1 2 3 4 5 6 7 8 9 10

584 mV x 0.624 1.12 1.48 1.80 1.92 2.10 2.18 2.36 2.46 2.44

~~624~~ 624

660 opdr. 6

| | | | | | | | | | | | | |
|-----|---|--------|------|------|------|------|------|------|------|------|------|------|
| 620 | U | 32.3 V | 30.0 | 27.5 | 25.0 | 22.5 | 20.0 | 17.5 | 15.0 | 12.5 | 10.0 | 7.5 |
| 620 | I | 2.81 A | 2.60 | 2.37 | 2.14 | 1.92 | 1.69 | 1.49 | 1.26 | 1.04 | 0.82 | 0.60 |
| 660 | x | 2.70 V | 2.52 | 2.26 | 2.06 | 1.90 | 1.66 | 1.46 | 1.24 | 1.00 | 0.82 | 0.62 |

5.0 2.5
0.38 0.17
0.38 0.18

opdr. 7.

delay is $7s$

323V power supply

opdr 8

$A = 10V$

polarization time = $5,0s$

delay = $500ms$

Four

| n | cursor | echo intensity |
|----|----------------|-------------------|
| 2 | 660 ms | 1,40 V |
| 3 | 580 ms | 1,32 V |
| 4 | 580 ms | 1,30 V |
| 5 | 580 ms | 1,28 V |
| 6 | (620 ms) 580ms | (1,46 V) 1,06 V |
| 7 | 560ms / 580ms | 0,940 V / 0,880 V |
| 8 | (620ms) 580ms | (0,840 V) 0,880 V |
| 9 | 620 ms | 0,640 V |
| 10 | 580 ms | 0,640 V |
| 11 | 580 ms | 0,720 V |
| 12 | | |
| 13 | | |
| 14 | | |
| 15 | | |
| 16 | | |
| 17 | | |
| 18 | | |
| 19 | | |
| 20 | | |

opdr. 8

polarization time = 5,0 s

A = 10 V

delay = 500 ms

| n | base | echo | t_{echo} (s) |
|----|--------|---------|---------------------------------|
| 2 | 2,26 V | 0,040 V | 1,02 |
| 3 | 2,28 V | 0,042 V | 1,04 |
| 4 | 2,28 V | 0,068 V | 1,00 |
| 5 | 2,26 V | 0,116 V | 1,01 |
| 6 | ± 2 mV | | 0,152 V |
| 7 | | | 0,184 V |
| 8 | | | 0,258 V |
| 9 | | | 0,314 V |
| 10 | ± 4 mV | | 0,384 V |
| 11 | | | 0,452 V |
| 12 | | | 0,520 V |
| 13 | ± 8 mV | | 0,628 V |
| 14 | | | 0,656 V |
| 15 | | | 0,760 V |
| 16 | | | 0,832 V |
| 17 | | | 0,864 V |
| 18 | | | 0,904 V |
| 19 | | | 0,904 V |
| 20 | | | 0,880 V |
| | | | 1,14 |

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De delay was niet altijd precies 500 ms,

± 70 ms

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Ampl variieren

n=30

| Ampl. (V) | echo intensity (V) |
|-----------|--|
| 0,5 | $\pm 0,4 \text{ mV}$ 0,0128 mV |
| 1,0 | 0,0140 V |
| 1,5 | 0,0156 V |
| 2,0 | 0,0368 V |
| 2,5 | 0,0560 V |
| 3,0 | $\pm 0,8 \text{ mV}$ 0,0792 V |
| 3,5 | 0,104 V |
| 4,0 | 0,109 V |
| 4,5 | 0,150 V |
| 5,0 | 0,156 V |
| 5,5 | 0,200 V |
| 6,0 | 0,210 V |
| 6,5 | 0,252 V |
| 7,0 | $\pm 2 \text{ mV}$ 0,296 V, 0,262, 0,252 |
| 7,5 | 0,264 V |
| 8,0 | 0,266 V |
| 8,5 | 0,256 V |
| 9,0 | 0,250 V |
| 9,5 | 0,214 V |
| 10,0 | 0,158 V |

delay

$n=18$, Amp. = 7,5 V

| delay (s) | echo (V) | |
|-----------|----------|------------------------|
| 0,1 s | 0,696 V | 0,688 |
| 0,2 | 0,608 V | 0,656 |
| 0,3 | 0,616 V | 0,620 0,616 |
| 0,4 | 0,872 V | 0,560 |
| 0,5 | 0,840 V | 0,536 |
| 0,6 | 0,472 V | |
| 0,7 | 0,424 V | |
| 0,8 | 0,400 V | |
| 0,9 | 0,376 V | |
| 1,0 | 0,344 V | |
| 1,1 | 0,320 V | |
| 1,2 | 0,280 V | |
| 1,3 | 0,272 V | |
| 1,4 | 0,248 V | |
| 1,5 | 0,216 V | |
| 1,6 | 0,182 V | |
| 1,7 | 0,182 | |
| 1,8 | 0,184 | |
| 1,9 | 0,168 | |
| 2,0 | 0,168 | |

$\pm 8 \text{ mV}$

$\pm 70 \text{ ms}$