HORIZONTAL 5.2.5 – Auth to C2

~~5.2.7 – Revoca~~

~~5.2.8 – Replace~~

~~5.2.9 – Period C2 comments~~

23.401

~~43.5 × 31~~

5 × 20 fuse

Aerial UE Identifier

	H	V
Mode 4	320 ×	256
Mine	320 ×	256

$T_{s1} = (N_{ht} + 1) * t_c$

$\leftarrow N_{hd} \times t_c \xrightarrow{N_{m-1}} N_{hd}$ N_{hsp-1} N_{hsp}

N_{ht}

$f = 1MHz$

$\text{line} = 64\mu s$

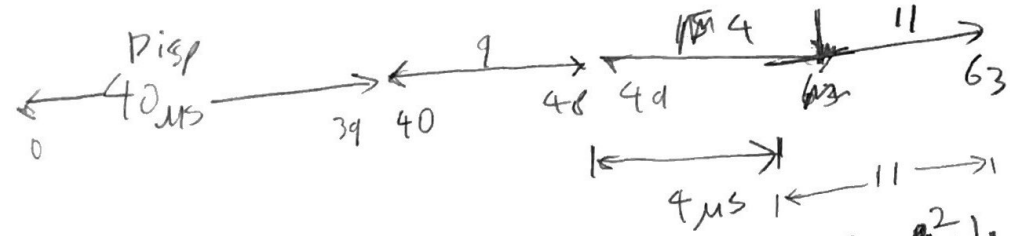
$N_{ht} = R0 = 63$

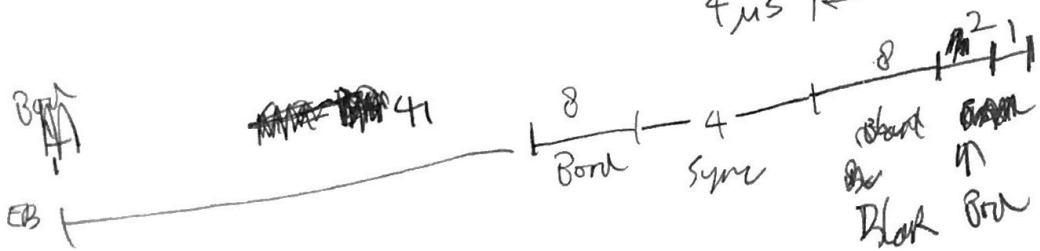
$N_{hd} = R1 = 40$

$N_{hsp} = R2 = 49$

$N_{hsw} = R3 = 4$

$8px = 1\mu s$





m4 320 ⇒ 8 px/μs

1.05

Me 320 px ⇒ 7.6 px/μs

81 px

3 steps in loop

00-19-AF-34-88-EB

clk_get_hz(clk_sys) / 6 × 1000

sm_config_set_clk_div( ) 25.3 MHz

64 μs = 48 sec

= 750k 1 step = 1.33 μs

$f_{sys} = 125MHz$

@ 5.6 → 1.0752 μs 1 ppx

VERTICAL

$T_f = (N_{v4} + 1) \times T_{rc} + N_{adj} \times T_{sl}$

$N_{v4} = R4 = 38$

$N_{adj} = R5 = 0$

$N_{vd} = R6 = 32$ 8 pulses

$N_{vsp} = R7 = 34$

$\leftarrow N_{vd} \times T_{rc} \rightarrow \leftarrow \rightarrow$

0 $N_{vd}-1$ . . $N_{vsp}-1$ N_{vsp}

0 31 / 32 33 | 34 35 | $16 \times T_{SL}$ (Default)

32 char row

Sync

Beeb uses 2SL (2 Scan Lines)

$T_{SL} = 64\mu s$

$T_{CR} = N_{SL} \times T_{SL}$

$= 64 \times 8 = \cancel{448\mu s}$ $512\mu s$

~~57Hz (?)~~

50.08 Hz.

36 37 38

ll × 2

ls × 1

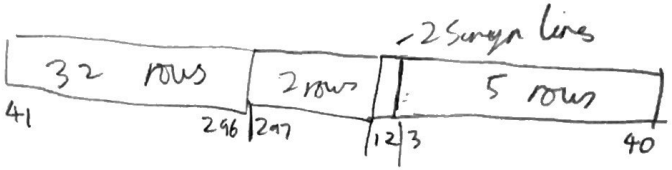
ss × 2

⋮

Vline

ss × 2

⋮



Measured

Getting 49.6 Hz (20.16 ms)
(0.8%) low

Line = 64.6 μs (15.48 kHz)
(1% lower)

R3 = 24