

Uniden WDECT2315 phone LCD initialisation sequence

v1.2 8 Feb 2021

Phone was manufactured about 2017.

Display is a character module, 3 lines of 16 character, but seems to be addressed as 1 line of 48 characters. Characters are formed from a 5x7 pixel grid.

LCD 8 pin, 4 wire SPI interface : CS, DATA, CLK, RS, , RESET, Vcc, GND, Vlcd

with Vbat = 3.3V

CS	Chip select, active low asserted 7uS before first CLK pulse held low for duration of a byte until 583nS after last CLK rising
DATA	Data, write clocked on rising edge of CLK. Sent most-significant-bit first, 8 bit words, 1000uS delay between bytes.
CLK	Clock, 5uS (214kHz), only present when clocking data bits.
RS	Register select Low = command High = data asserted 333nS to 667ns before CS
RST	0V jumps to 3.24V after short delay on powerup
Vcc	3.24V
GND	0V (battery -ve)
Vlcd	-2.65V

LCD initialisation:

(each byte is a command, unless designated with a “d” as data)

31

6mS delay

31

31

08

01

4mS delay

06

Store programmable character patterns

C0 Set CGRAM addr register to 0000000

08d

0Cd

0Ed

0Fd

0Ed

0Cd

08d

00d

08d

0Cd

0Ed

0Fd

0Ed

0Cd

08d
00d
08d
0Cd
0Ed
0Fd
0Ed
0Cd
08d
00d
08d
0Cd
0Ed
0Fd
0Ed
0Cd
08d
00d

0c

Clear text display

W W
W W
W W

02 Home cursor

20d
20d
20d
20d
20d
20d
20d
20d
20d
20d

400mS delay

31

6mS delay

31

31

06

2mS delay

Store programmable character patterns

C0 Set CGRAM addr register to 0000000

08d
0Cd
0Ed
0Fd
0Ed
0Cd
08d
00d
08d
0Cd
0Ed
0Fd
0Ed
0Cd
08d
00d
08d
0Cd
0Ed
0Fd
0Ed
0Cd
08d
00d
08d
0Cd
0Ed
0Fd
0Ed
0Cd
08d
00d

05

"
" Welcome !

```
Please Wait... "
02           Home cursor
20d
20d
20d
```

20d
20d

20d
20d
20d
20d
57d W
65d e
6Cd l
63d c
6Fd o
6Dd m
65d e
21d !
20d
20d
20d
20d

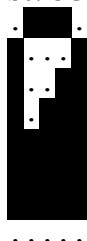
20d
50d P
6Cd l
65d e
61d a
73d s
65d e
20d
57d W
61d a
69d i
74d t
2Ed .
2Ed .
2Ed .
20d

31
31
31
06

Store programmable character patterns

C0 Set CGRAM addr register to 0000000

0Ed
11d
13d
17d
1Fd
1Fd
1Fd
00d



08d . . .
0Cd . . .
0Ed . . .
0Fd . . .
0Ed . . .
0Cd . . .
08d . . .
00d . . .
08d . . .
0Cd . . .
0Ed . . .
0Fd . . .
0Ed . . .
0Cd . . .
08d . . .
00d . . .
08d . . .
0Cd . . .
0Ed . . .
0Fd . . .
0Ed . . .
0Cd . . .
08d . . .
00d . . .
08d . . .
0Cd . . .
0Ed . . .
0Fd . . .
0Ed . . .
0Cd . . .
08d . . .
00d . . .

0C

" SUN 12:00A ☀"
" BUS STUD #1 "
"

02 Home cursor
20d
20d
20d
53d S
55d U
4Ed N
20d
31d 1
32d 2
3Ad :
30d 0
30d 0
41d A
20d
20d
00d battery symbol

20d
20d
42d B
55d U
53d S
20d
53d S
54d T
55d U
44d D
20d
23d #
31d 1
20d
20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d

20d