

PROJECT

Requirements

- 1) Generator device which produce 300 frequencies and emit them.
- 2) Pc software
- 3) Encryption/Decryption
- 4) Microsd card or usb flash drive

Generator Device Specs

- Produce 300 frequencies simultaneously. Voltage 12V-36V regulating through txt files parameters and 300 frequencies through light
- Frequency range 1Hz-1Mhz
- Accuracy 99.99%
- Frequency step 1hz
- USB connection with pc
- LCD touch screen up to 50 characters(support Greek/English characters)

The device it's necessary to has onboard memory flash, in the flash will be stored encrypted txt files(from now we call txt files as programs)from the microsd card or usb flash. After the loading of the programs in the flash the microsd or usb flash can be removed. Each txt file/program contains numbers and some parameters, the numbers are the frequencies and the parameters will "tell" the device how to emit these frequencies after decryption and for how long(parameters are explained at the end of this document).

LCD touchscreen and functionality

On the lcd screen the user will be able to see which program is executed now, remaining time and through the touchscreen the user will be able to **stop** the emission, **choose** another program from the program's list(which is stored to the memory flash) and **start** to execute the chosen one. When the device finishes the execution of a program moves directly to the next one on the list and when the list of programs is executed, device will start again from the beginning of that list. When the device is shut down, it has to keep in memory the program which was executed before the shut down, so when it powers on again, the emission will continue from the program that was last executed.

The lcd will show

- Self-test: OK or ERROR
- Status: Running (flashing letters) or Paused(stable letters)

- Which program is running (Greek or Engcharacters)
- Program time: HH:MM:SS (with countdown) (the time you will get it from the parameters)
- Total programs Time : HH:MM:SS (with countdown)
- Image in the right side as graphic we'll choose the image

When the user press "stop" in the LCD will be appear the list of the programs and will be able to choose one from this list and start the execution

The user will be able to turn off the display without stopping the emission of the light

LEDS

300 leds will be on the device. Each led will transfer 1 frequency. The user will be able to turn off all the leds but the emission will continue through the voltage pins. The leds will be stable on the device without an expendable cable like in the 40 frequency project.

Encryption/Decryption

The txt files will be encrypted in pc software before load it to the microsd card or usb. The device will decrypt them before starting the emission.

Expiration Date

When we load the encrypted txt files in the microsd or usb, we set an expiration date, the expiration date will be from days to years. After the expiration date the microsd will be locked and the device will appear a message to the user which will direct him to communicate with us to send him new microsd with new expiration date. So the device it's important to keep the date in the memory and read the expiration date from each microsd. There should be a "Master" device which will read all the microsd cards or usb even if the expiration date has been passed.

PC Software

Pc software functions

- Real-time connection with the device (I can load txt files in the device and executing directly, without microsd or usb.
- Encryption/Decryption of txt files
- Load encrypted files to the microsd or usb

- Set expiration date
- Read a written microsd card
- Expendable option

Self test

Each time the device powers on it has to make a self-test to verify that emission works properly. To succeed that randomly frequencies should be sent to different pins and take a feedback. If some pins doesn't give a feedback the device will double check these pins. If the result remain the same but most of the pins worked correctly then the device will continue to execution of the programs with an "Error" message on the screen next to the self test(as we described above). If most of the pins don't give a feedback, then an error message will appear and a message to communicate with us. The device won't continue to execution.

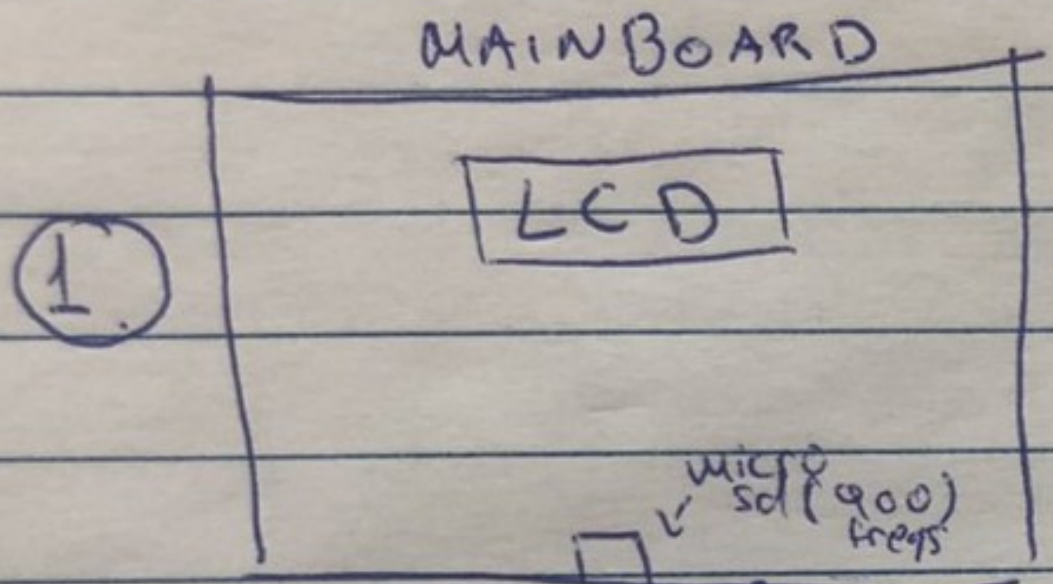
Expendable Option

We want the device to be expendable as far as the frequencies concerned. At first a mainboard will be declared which will produce 300 frequencies. If we want to expand that and emit 600 frequencies, we will be able to connect a second board via cable which will emit the rest 300 frequencies simultaneously and if we want to produce 900 frequencies simultaneously we will be able to connect a third board to the previous two. So we will have a system of 3 boards which will be all connected to one another. One of the 3 boards will have the lcd display and the microsd card on (mainboard) and the other two will just use the emission part of the board without the lcd display and microsd card functions.

Functionality shown on image.

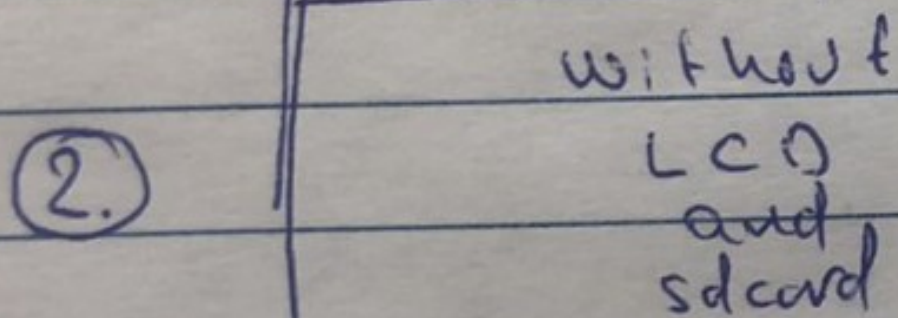
EXPEND

txt program = 90



cable

A hand-drawn wavy line representing a cable, connecting the bottom of the first mainboard to the top of the second mainboard.



300 freqs

PARAMETERS EXPLANATION TXT FILES / PROGRAMS

When the device executes a program/txt file, the frequencies that emits will change as the time passes, so below there is an example of the structure of the txt file and the parameters inside of it.

The parameters are

1) **offset** <> 0 and **neg** = 0, **up** = 0, **inv** = 0, **onset** = 0

add the number of offset to all frequencies and change step by step according to duration

until the onset

Structure of txt file with 1 frequency in it and how this frequency changes on execution as the time passes.

NAme, test //this is the name of the file/program

Voltage, 12V – 36V (admins set the voltage)

FFrequencies, 1 //this parameter declares how many frequencies the txt file has, for this example we have only 1

OFFset, 15 //this parameter sets the starting frequency the device will execute, it is explained in detail below

ONset, 0 //this parameter sets the stopping frequency the device will execute, it is explained in detail below

DURATION, 120 //this parameter declares the time of each step

NEGATIVE, 0 //this parameter is 0 or 1. It is explained in detail below.

UP, 0 //this parameter is 0 or 1. It is explained in detail below.

INVERSE, 0 //this parameter is 0 or 1. It is explained in detail below.

15450

Example freq 15450

when the device is gonna execute this program starts from frequency+offset

15450+15= 15465 and every 120sec which is the duration change the frequency until the onset

15465

15464

15463

15462

...

...

15450(onset 0) if onset was 1 it was gonna stop at 15451

this will happen to all frequencies in this file

2) offset = 0 and neg = 0 (neg value only 0 or 1), up = 0 (up value only 0 or 1), inv = 1(inverse value only 0 or 1), onset = 0

when inverse is 1 it changes all the frequencies by subtract each digit from 10 except 0 which remain 0

example freq 14506 with inverse 1 it changes to 96504

3) offset <> 0 and neg = 0 (neg value only 0 or 1), up = 0 (up value only 0 or 1), inv = 1(inverse value only 0 or 1), onset = 0

Example freq 15450

NAME, test

Voltage, 12V – 36V (admins set the voltage)

FRequencies, 1

OFfset, 15

ONset, 0

DUration, 120

NEgative, 0

UP, 0

inverse, 1

15450

when the device is gonna execute this program starts from frequency+offset but now the inverse is 1 so the device

will execute like this

15450+15= 15465 but inverse and every 120sec which is the duration change the frequency until the onset

15465 inv and execute 95645

15464 inv and execute 95646

15463 95647

15462 95648

15641 95649

15640 95660

...

...

15450 95650 (onset 0) if onset was 1 it was gonna stop at 15451 inv 95659

4) offset <> 0 and neg = 1 (neg value only 0 or 1), up = 0 (up value only 0 or 1), inv = 1(inverse value only 0 or 1), onset = 0

when neg = 1 all the frequencies are deducted by 1 every dur time, up to offset

when there neg = 1 and inv = 1 it happens the same but produce the inverse frequencies

Example freq 15450

NAme, test

Voltage, 12V – 36V (admins set the voltage)

FRequencies, 1

OFfset, 15

ONset, 0

DUration, 120

NEgative, 1

UP, 0

inverse, 1

15450

15450 inv and execute 95650 after 120sec

15449 inv 95661

15448 inv 95662

...

...

...

15436(offset 15) inv and execute the last 95674

5) offset <> 0 and neg = 0 (neg value only 0 or 1), up = 1 (up value only 0 or 1), inv = 1(inverse value only 0 or 1), onset = 0

when up = 1 all the frequencies are increase by 1 every dur time, up to offset

when there up = 1 and inv = 1 it happens the same but produce the inverse frequencies

Example freq 15450

NAmE, test

Voltage, 12V – 36V (admins set the voltage)

FRequencies, 1

OFFset, 15

ONset, 0

DUration, 120

NEgative, 0

UP, 1

inverse, 1

15450

15450 inv 95650

15451 inv 95659

15452 inv 95658

...

...

...

15464 inv 95646 (offset 15)

ANTENNA FOR VOLTAGE



VOLTAGE OUTPUT

MAIN Board



LED Board

300