

## Questions

1. Are 300 Frequency channels are independently controllable? All can emit different frequencies at the same time? All 300 channels will emit the frequencies which are written in microsd card. Yes they will be different frequencies. Also 40 channels of the 300 should be possible to use them like the 40 channel project
2. LED channels will emit the same frequency as their corresponding voltage channels are emitting? Like if Channel 1 Freq is 500k, then Channel 1 of Voltage and Channel 1 of LED will have the same 500k. In this way we have 300 independent frequency channels only. Please verify. Correct
3. Specify the color and type of LED? Type can be SMD or Through hole. For 300 LEDs I recommend SMD LEDs. White or green leds will be ok, smd are fine
4. You need an extra LED channels board which can be plugged in or out from the main board? I'm not sure I get this question, I need to connect the led channels with the main board through cables. But the cables should use connectors not by hand, maybe through 8 40 pin header or whatever connector help us to avoid using many cables
5. Any special mounting requirements for LEDs on PCB? How these 300 LEDs will be soldered? Any specific pattern or shape? Nope one next to another in rows
6. The expandable cards for 600 Freqs or 900 Freq, the LED boards will be expanded too or just voltage boards? I want the voltage board and the main board to be One board. This mean you should design the main board with voltage channels on it. Now if this is clear, on the second main board I could just connect the led board too.
7. Will you provide us the encryption/decryption algorithm or should we use our own? No you can use by your own
8. Regarding self test, taking a feedback from all pins is not possible. Only some pins can be used to test the frequency emission. This is what I want. The device it might work for many days without any power off, by this I want to say that I need the self test repeated every few hours and if there is a problem repeat again and if the problem remains should appear a message in a screen, without stopping the operation
9. The voltage output from 12V to 36V is common to all voltage channels. Its not possible to change voltage output for individual channels. Like if u set the voltage to 25V, all voltage channels will emit at 25V. Correct
10. What type of output connector do u want for 300 Voltage channels? Probably Headers 40 pin or as I said before if you have any other idea to use as smaller cables as possible to save space on board
11. Any specific requirement for the size of board? Or Number of boards? Not really but I don't want to be bigger than A4 page
12. Only PCBs will be made. No box will be used for mounting. LCD will be directly mounted on the PCB or via connector as desired. You have to think that the pcbs it might be inside a deep box, but

the lcd touch screen should be on top of the box. So it's necessary to use connector and a cable at least 30cm

13. What is the internet protocol u wanna use for internet functionality? Do u want to update code from some remote location? Do u have server or static IP available? Will every board has some unique identifier to recognize it over internet? Yes each pcb will has a unique id, if I have expendable device the unique id will be only one of the main board. Through the internet I want to be possible to download txt files to the device(instead of microsd card) but also if we make later any firmware update I want to be able the clients download it, without needing to send the device back. From a server ofcourse where we are gonna make a website and each client will have a profile.

We will add the internet functionality in the board but its protocol should be decided at the later stages of the project.

14. I still dont know the specification of antenna u will use on these vantage channels. U say its just a simple wire. But as far as I know antennas have some properties. Antennas may load the system. If u dont know about the antenna u can share with me the design of previous voltage channels amplifier circuit u already have. Because if that circuit works perfectly for you, its specifications can be used to derive the properties of antenna. As I wrote you above, the voltage channels will be on mainboard. The outputs of the voltage will be headers 40 pin. Now I want and one 3<sup>rd</sup> board. The 3<sup>rd</sup> board it has connectors to connect through cables or directly with the voltage channels and after that ONLY rows about 1m length each one, no need to be straight rows you can design them as you want so the pcb will be small. So 300rows 1m which will be connected to the voltage channels of the main board. You can imagine that this pcb will be used instead of open cables as an antenna to the voltage channels

15. When u say u want the production cost of 400USD, does it include the expendable cards for 600 and 900 freq? No 400usd 1 mainboard+ 1 led board + 1 (300 rows board)

Every time you finish one part of the pcb design(led outpus, voltage outputs) better send me an image to see it. The led board should also have one switch, so to be possible from the user to power off.