

Fig-1: optical memory (this I have found in the patent)

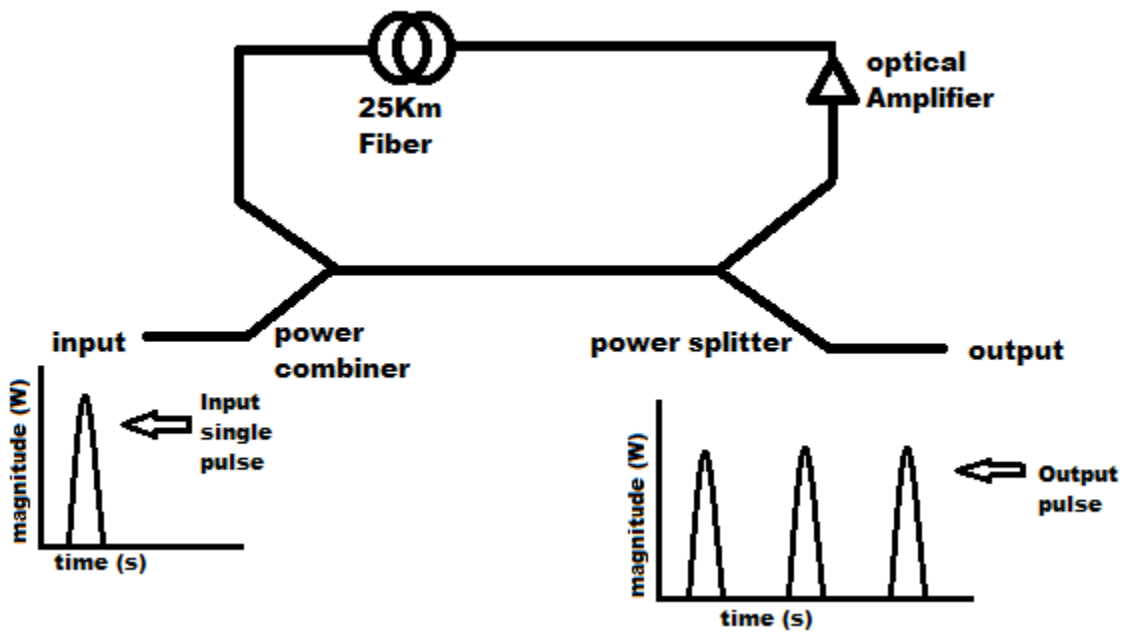


Fig-2: simplified diagram of fig-1 (this fig-2 I want to simulate in optisystem-7)

Working principle:

Figure-2 is the simplified diagram of the figure-1, and I want to simulate figure-2 in optisystem-7 environment. As we can see in figure-2, we want to inject only a single pulse in the memory through the input port, so this pulse is divided by the splitter, and half will be come out by the output port, and other half will travel through the 25km fiber via amplifier, by this amplifier this pulse get amplified, so the loss due to splitting can be compensated. Now this amplified pulse again split and amplified, so the process of splitting and amplification will be going on. So according to the theory we will get one pulse after one circulation of the pulse, so in output port we will get a pulse train if we look at the time domain analyzer.

Now I have some question regarding to optisystem-7 they are:

- 1) How can I produce a single pulse in optisystem-7?
- 2) Why my simulation is not working?
- 3) What will be the value of global parameters?
- 4) Is there any optical time domain visualizer which can show me the pulse train at output just like in figure 2?
- 5) If there is no such an optical time domain visualizer, how can I observe each output pulse by the current optical time domain visualizer? (This is very important to me).
- 6) Finally how can I simulate this type of feedback loop in optisystem-7?

Request:

Please anyone has the solution, if you want to upload a osd file, then upload a osd file compatible to optisyste-7, because I have only optisystem-7.