

Re: questions about light

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- *From:* Blackbird <fake@xxxxxxxx>
 - *Date:* Fri, 31 Mar 2006 01:10:52 +0000 (UTC)
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laura wrote:

Here is the problem:

I have multiple signals that are travelling through my device. When the signals reach a "node" I must "mark" the signals so that I know that they have passed through that node. Also, in some cases the signals must be (divided / multiplied) and then sent to other "nodes".

Here are the basic properties that I need:

[Discussion of properties deleted for sake of brevity]

I have imagined a simple way to do this: by using light rays which have different wave-lengths. When the rays are passing through a "node" I will mark them by increasing their wave-length with a certain value. And then I divide those rays by using the devices that you have already suggested.

I don't know too much physics and this is why I needed some answers from you.

Is there any other way to do this?

Are there other properties of light which I can count on?

Are there other type of fast signals that I can use?

Thanks a lot,

Laura

I am still not sure about the application of your device, but unless this is some sort of optical experiment, I think you could set up this much easier and cheaper in a computer environment, where the nodes are simple processors (small computers), and the connection between them cheap coaxial cables. A signal traveling through a coax cable propagates with something very close to light speed; so the advantage of using an optical cable is not speed, but capacity (bandwidth), less signal loss and low signal energy .

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However, 10^4 different signals should be no problem with a coax cable.

Best wishes,
Blackbird

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