

Re: True-time Delay Element for Laser Communications System

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- *From:* Sam Goldwasser <sam@xxxxxxxxxxxxxxxxxxxxxx>
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"susheemg@xxxxxxxx" <susheemg@xxxxxxxx> writes:

I am working on the design of a laser communications system that requires true-time delay elements. Specifically, I want to be able to add a delay optically to a modulated signal. The max delay is ~250 ps, and I would like to be able to control the delay electronically in steps of about 10 ps. The driving factor is the total loss through the element, which must be minimized. The element itself can operate on the signal in a fiber or the signal in free-space. Are there papers that discuss low-loss methods to perform this delay?

There is a rather large body of research into this precise area for applications like phased array timing. Have you done any sort of search? :)

--- sam | Sci.Electronics.Repair FAQ: <http://www.repairfaq.org/>
Repair | Main Table of Contents: <http://www.repairfaq.org/REPAIR/>
+Lasers | Sam's Laser FAQ: <http://www.repairfaq.org/sam/lasersam.htm>
| Mirror Sites: http://www.repairfaq.org/REPAIR/F_mirror.html

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