22. Device as claimed in claim 21 wherein said retention means includes a plurality of spacers, said spacers being substantially completely inert to said liquid crystal material.

23. A liquid crystal optical switching apparatus; said apparatus comprising:

a first liquid crystal optical switching device having first and second transparent members, and said first and second members having a base surface associated therewith, said base surfaces being spaced apart by liquid crystal material, said first transparent member having first input and output ports associated therewith, said second transparent member having a second output port associated therewith;

a second liquid crystal optical switching device, having third and fourth transparent members, each said third and fourth members having a base surface associated therewith, said base surfaces spaced apart by liquid crystal material, said third transparent member having third input and output ports associated therewith, said fourth transparent member having fourth input and output ports associated therewith;

means, associated with each said input and output port having means, extending into said transparent member associated therewith, for receiving an optical fiber;

means for sustaining an electromagnetic field in said liquid crystal material;

a first optical path between said first output port and said third input port; and

a second optical path between said second output port and said fourth input port.

24. Apparatus as claimed in claim 23 wherein said second transparent member further comprises:

a second input port.

25. Apparatus as claimed in claim 24 wherein said optical fiber receiving means includes a blind hole extending into said members associated therewith at about the critical angle.

26. Apparatus as claimed in claim 25 further comprising:

means, associated with each said port and disposed in each said blind hole, for collimating a light beam passing therethrough.

27. Apparatus as claimed in claim 23 wherein said electromagnetic field sustaining means includes first, second, third and fourth electrodes overlying said base surfaces.

28. Apparatus as claimed in claim 27 further comprising

means for matching the refractive indices of each said electrode and said liquid crystal material.

29. Apparatus as claimed in claim 27 further comprising:

means for matching the refractive indices of said electrodes and said base surfaces associated therewith.

* * * * *