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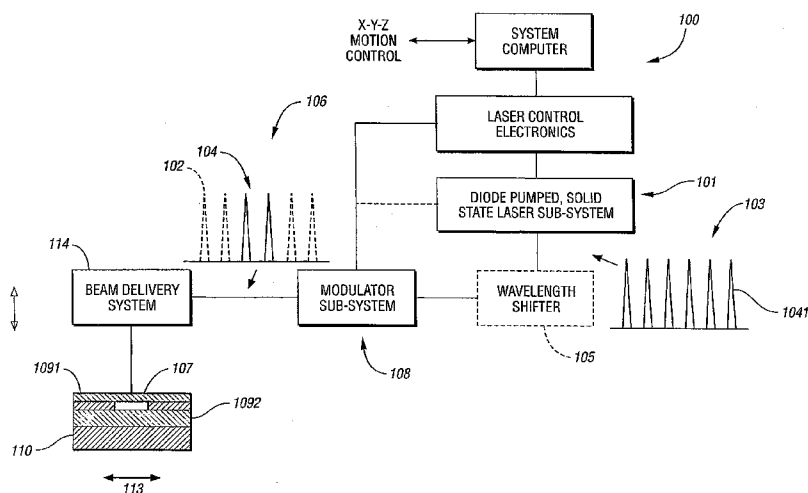
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Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE,

[Continued on next page]

(54) Title: LASER-BASED SYSTEM FOR MEMORY LINK PROCESSING WITH PICOSECOND LASERS



(57) Abstract: A laser-based system for processing target material within a microscopic region without causing undesirable changes in electrical or physical characteristics of at least one material surrounding the target material, the system includes a seed laser, an optical amplifier, and a beam delivery system. The seed laser for generating a sequence of laser pulses having a first pre-determined wavelength. The optical amplifier for amplifying at least a portion of the sequence of pulses to obtain an amplified sequence of output pulses. The beam delivery system for delivering and focusing at least one pulse of the amplified sequence of pulses onto the target material. The at least one output pulse having a pulse duration in the range of about (10) picoseconds to less than (1) nanosecond. The pulse duration being within a thermal processing range. The at least one focused output pulse having sufficient power density at a location within the target material to reduce the reflectivity of the target material and efficiently couple the focused output into the target material to remove the target material.

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