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(21) International Application Number: PCT/US97/07780 (22) International Filing Date: 7 May 1997 (07.05.97) (30) Priority Data: 08/644,810 10 May 1996 (10.05.96) US (71) Applicant: QUANTUM CORPORATION [US/US]; 500 McCarthy Boulevard, Milpitas, CA 95035 (US). (72) Inventors: HAYS, Nathan, J.; 48 Thor Avenue, San Francisco, CA 94131 (US). HENSON, James, A.; 15250 Sycamore Drive, Morgan Hill, CA 95037 (US). CARPENTER, Christopher, M.; 549 S. Frances, Sunnyvale, CA 94086 (US). AKIN, William, R., Jr.; 1045 Brookview Court, Morgan Hill, CA 95037 (US). EHRLICH, Richard, M.; 12092 Marilla Drive, Saratoga, CA 95070 (US). BEAZLEY, Lance, D.; 1909 Quebec Way, San Jose, CA 95124 (US). (74) Agents: HARRISON, David, B. et al.; Quantum Corporation, 500 McCarthy Boulevard, Milpitas, CA 95035 (US).	(81) Designated States: AU, CA, CN, JP, KR, SG, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> 	

(54) Title: POSITION FEEDBACK SYSTEM FOR VOLUME HOLOGRAPHIC STORAGE MEDIA**(57) Abstract**

A method of holographic recording in a photorefractive medium wherein stored holograms may be retrieved with maximum signal to noise ratio (SNR) is disclosed. A plurality of servo blocks containing position feedback information is recorded in the crystal (200) and made non-erasable by heating the crystal (300). The servo blocks are recorded at specific increments, either angular or frequency, depending whether wavelength or angular multiplexing is applied, and each servo block is defined by one of five patterns. Data pages are then recorded at positions or wavelengths enabling each data page to be subsequently reconstructed with servo patterns which provide position feedback information. The method of recording data pages and servo blocks is consistent with conventional practices. In addition, the recording system also includes components (e.g. voice coil motor) which respond to position feedback information and adjust the angular position of the reference angle of a reference beam to maximize SNR by reducing crosstalk, thereby improving storage capacity.

