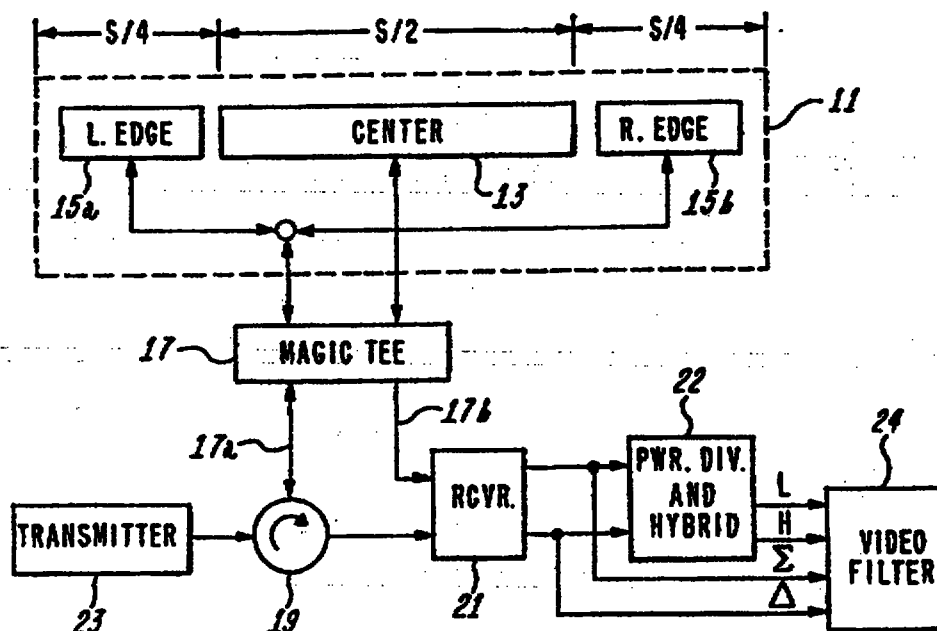




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 6 : G01S 13/44, H01Q 25/02	A1	(11) International Publication Number: WO 98/01771 (43) International Publication Date: 15 January 1998 (15.01.98)
(21) International Application Number: PCT/US97/11387 (22) International Filing Date: 1 July 1997 (01.07.97) (30) Priority Data: 08/675,977 5 July 1996 (05.07.96) US (71) Applicant: SPERRY MARINE INC. [US/US]; 1070 Seminole Trail, Charlottesville, VA 22901 (US). (72) Inventors: STARR, Michael, A.; 2711 Westmoreland Road, Charlottesville, VA 22901 (US). JESSEN, Dale, W.; 114 Overlook Drive, Charlottesville, VA 22903 (US). KLOTZ, Peter, J.; 354 Hill-N-Dale Drive South, York, PA 17403 (US). WOOD, Thomas, E.; 111 Turtle Creek Road, Charlottesville, VA 22901 (US). ARCHAMBAUGH, Jerald, E.; 63-C East Lake Road, Ridgefield Springs, NY 13439 (US). (74) Agent: LEVINE, Seymour; 9-B Weavers Hill, Greenwich, CT 06831 (US).	(81) Designated States: CA, JP, KR, NO, RU, SG, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published With international search report.	

(54) Title: A BEAM SHARPENED, LOW SIDELOBE ANTENNA SYSTEM



(57) Abstract

A beam sharpened, low sidelobe antenna is obtained by segmenting the antenna to provide two sub-antennas (13, 15), one of which is arranged as an interferometer (15a, 15b). The output signals of the two antennas are added and subtracted to provide sum and difference signals (17). The sum and difference signals and the output signals are then utilized to provide the desired beam sharpened, low sidelobe antenna (22, 24).