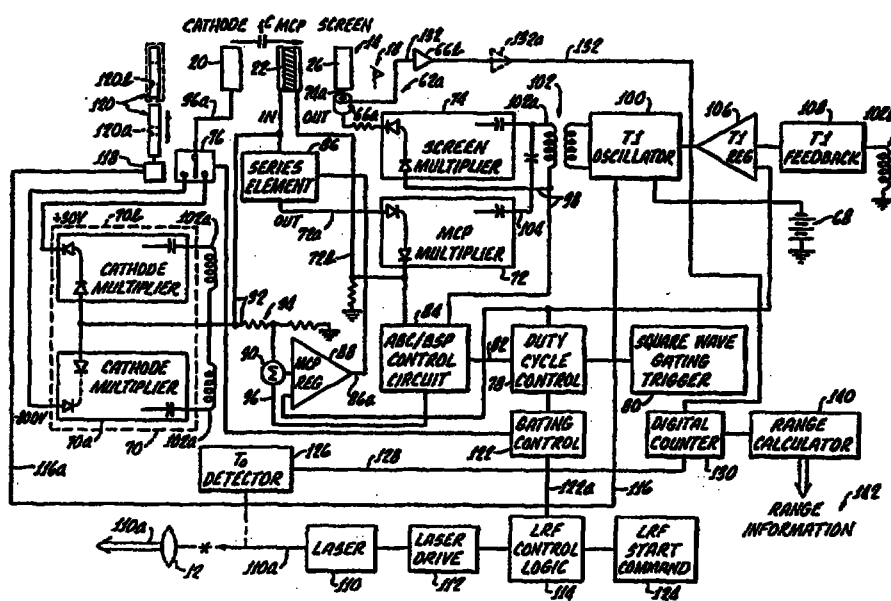




INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : H04N 7/00, G01C 3/08, G02B 5/30		A1	(11) International Publication Number: WO 99/60787
			(43) International Publication Date: 25 November 1999 (25.11.99)
(21) International Application Number: PCT/US99/11093		(81) Designated States: CA, IL, KR, NO, SG, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).	
(22) International Filing Date: 17 May 1999 (17.05.99)			
(30) Priority Data: 09/080,437 18 May 1998 (18.05.98) US		Published With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.	
(71) Applicant: LITTON SYSTEMS, INC. [US/US]; 21240 Burbank Boulevard, Woodland Hills, CA 91367 (US).			
(72) Inventor: PORTER, Jerry; 10220 Kilarney Drive, Dallas, TX 75218 (US).			
(74) Agent: MARSTELLER, Thomas; Marsteller & Associates, P.C., P.O. Box 803302, Dallas, TX 75380-3302 (US).			

(54) Title: NIGHT VIEWER AND LASER RANGE FINDER



(57) Abstract

An integrated night vision device and laser range finder (10) provides both night-time and day-time imaging of a scene by use of an image intensifier tube (14), as well as providing laser range finding operations both day and night. In a laser range finder mode of operation the device (10) projects a pulse of laser light into a scene being viewed, and a power supply and laser range finder circuit (62) of the device (10) temporarily utilizes the image intensifier tube (14) as a sensor to detect reflected laser light. During laser range finding, imaging is cut off for a very short time interval, and a pre-amplifier circuit (66b) associated with the image intensifier tube (10) provides an electrical output signal in response to receipt of laser light reflected from an object in the scene.