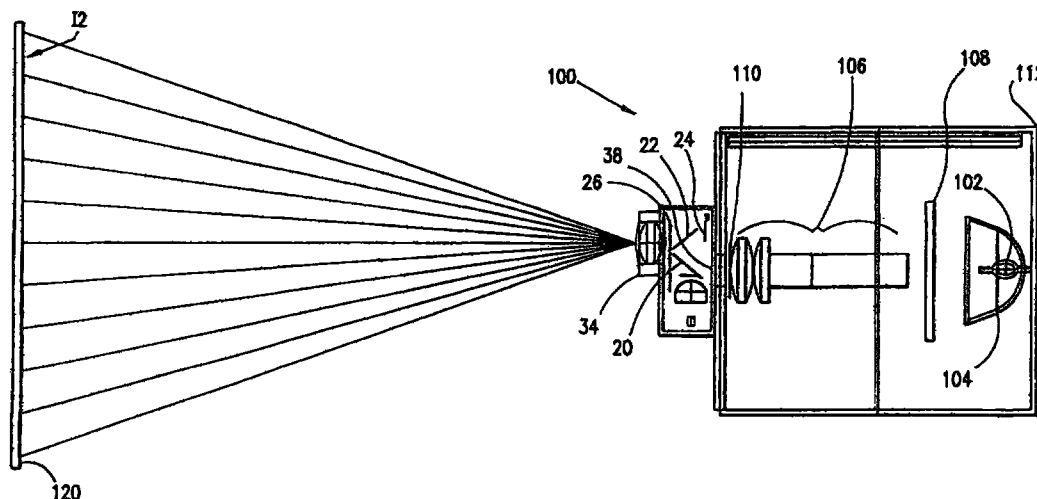




## INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

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| <p>(21) International Application Number: PCT/US99/11090</p> <p>(22) International Filing Date: 19 May 1999 (19.05.99)</p> <p>(30) Priority Data:<br/>09/162,700 29 September 1998 (29.09.98) US</p> <p>(71) Applicant: THREE-FIVE SYSTEMS, INC. [US/US]; 1600 North Desert Drive, Tempe, AZ 85281-1230 (US).</p> <p>(72) Inventors: BUCHANAN, David, R.; Three-Five Systems, Inc., 1600 North Desert Drive, Tempe, AZ 85281-1230 (US). SCHOTT, Dan, J.; Three-Five Systems, Inc., 1600 North Desert Drive, Tempe, AZ 85281-1230 (US). MILLIKAN, Bart, D.; Three-Five Systems, Inc., 1600 North Desert Drive, Tempe, AZ 85281-1230 (US).</p> <p>(74) Agent: TITUS, John, D.; Bryan Cave, LLP, 2 N. Central Avenue, #2200, Phoenix, AZ 85004-4406 (US).</p> |           | <p>(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).</p> <p><b>Published</b><br/><i>With international search report.</i></p> |

(54) Title: OPTICAL DOCKING STATION



## (57) Abstract

An optical docking station (110) comprises an optical frame (112) and a detachable virtual image display module (10). The display module (10) comprises a low power light source such as a light emitting diode (14), one or more beam splitters (20, 22), polarizers (18, 26), LCD panel (24), and an imaging lens (34). When the display module is detached from the optical frame, the light emitting diode (14) provides the primary illumination for the image formed by the LCD panel (24). The image formed is a magnified virtual image of the LCD panel (24). When the display module (10) is attached to the projector frame (112), a more powerful light source (102) provides the primary illumination thus forming a real image of the LCD panel (24) which is capable of being projected on to a screen (120).