



(51) International Patent Classification:

G01S 13/02 (2006.01) G01S 13/56 (2006.01)
G01S 7/41 (2006.01) G01S 13/42 (2006.01)

(21) International Application Number:

PCT/IL2010/000078

(22) International Filing Date:

31 January 2010 (31.01.2010)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/148,938 31 January 2009 (31.01.2009) US

(72) Inventors; and

(71) Applicants : KISLIANSKY, Aviel [IL/IL]; 60/8 Levin Epstein Street, 76462 Rehovot (IL). PICH, Guy [IL/IL]; 11A/511 Ben Gurion Street, 54017 Givat Shmuel (IL). ISSEROFF, Amit [IL/IL]; 29B/6 Hanasi Harishon Street, 76302 Rehovot (IL).

(74) Agent: KORAKH, Eliav; Borochoy Korakh & Co., 15th Floor, Atidim Tower, Kiryat Atidim, P. O. Box 58100, 61580 Tel Aviv (IL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

— with international search report (Art. 21(3))

— with amended claims (Art. 19(1))

(54) Title: LOW ENERGY RADAR SYSTEM

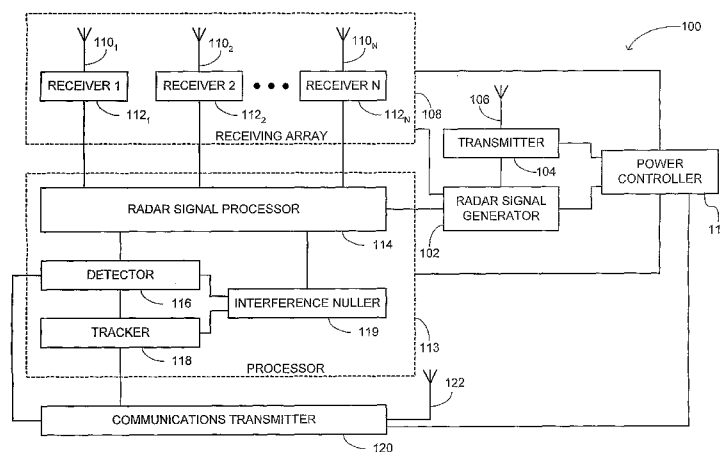


FIG. 1A

(57) Abstract: A low energy radar comprising a radar signal generator generating a radar signal, a transmitter transmitting the radar signal via a transmitting antenna, a receiving array including plurality of receiving antennas and a plurality of receivers, each antenna being coupled with a corresponding receiver, each of at least selected ones of the receivers receives a respective signal corresponding to reflections of the transmitted radar signal from a scene, a processor including a radar signal processor, the radar signal processor determines a scene reflections map, the scene reflections map includes values representing reflection characteristics from each selected location in the scene, a detector, detecting objects in the scene and the corresponding locations thereof according to the scene reflection map and a clutter map, the clutter map includes values representing clutter reflection characteristics from each selected location in the scene, and a power controller, after the transmitter transmitted the radar signal and the receiving array received the signal corresponding to reflections of the transmitted radar signal, the power controller shuts down at least one of the radar signal generator, the transmitter and the receiving array.