

(51) International Patent Classification:

G01S 19/21 (2010.01) H01Q 3/30 (2006.01)
G01S 19/30 (2010.01) H04B 7/08 (2006.01)

(21) International Application Number:

PCT/GB2019/051238

(22) International Filing Date:

03 May 2019 (03.05.2019)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

1807538.2 09 May 2018 (09.05.2018) GB

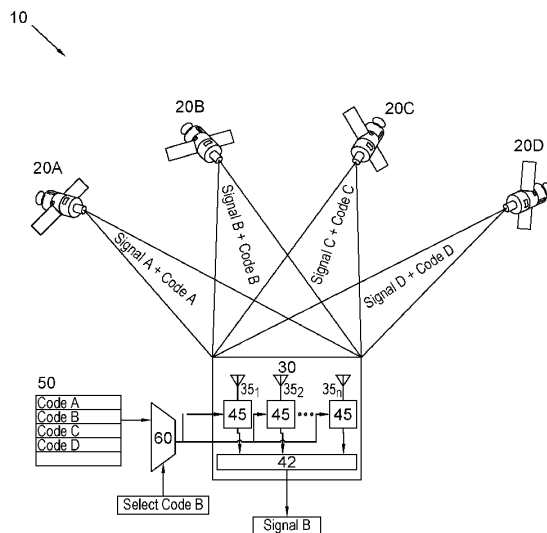
(71) Applicant: PHASOR SOLUTIONS LIMITED
[GB/GB]; The Elms Courtyard, Bromesberrow, Ledbury
Hertfordshire HR8 1RZ (GB).(72) Inventors: SZCZEPANIK, John-Paul; c/o Phasor So-
lutions Limited, The Elms Courtyard, Bromesberrow,
Ledbury Hertfordshire HR8 1RZ (GB). SCHRYBER,
Philip; c/o Phasor Solutions Limited, The Elms Courtyard,
Bromesberrow, Ledbury Hertfordshire HR8 1RZ (GB).
MAYO, Richard Hammond; c/o Phasor Solutions Limited,
The Elms Courtyard, Bromesberrow, Ledbury Hertford-
shire HR8 1RZ (GB).(74) Agent: STRATAGEM INTELLECTUAL PROPERTY;
Meridian Court, Comberton Road, Toft, Cambridge Cam-
bridgeshire CB23 2RY (GB).(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, BN, BR, BW, BY, BZ,
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,
HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP,
KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
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, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, 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, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).(54) Title: IMPROVEMENTS IN OR RELATING TO BEAM ALIGNMENT FOR ELECTRONICALLY STEERED ANTENNAE
SYSTEMS

Fig. 2

(57) Abstract: A method of auto-aligning a beam within a receiving electronically steered antenna system comprising a plurality of antenna elements is provided. The method comprises the steps of: providing a list of codes, wherein each code is embedded in signals transmitted by a respective transmitting entity, and identifies the transmitted signal as originating from said transmitting entity; selecting a transmitter and identifying a corresponding code for that transmitter; and for each antenna element: receiving a first communication signal; receiving a second signal representative of first communications signals received by each of the plurality of antenna elements; correlating the first and second signals with the identified code to generate first and second output signals; comparing the first and second output signals and determining a phase shift and/or time delay for minimizing the difference between the first and second output signals; and applying the phase shift and/or time delay to the first received communication signal.

Published:

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*