

(51) International Patent Classification:
H04W 84/00 (2009.01)(21) International Application Number:
PCT/IL2013/050345(22) International Filing Date:
22 April 2013 (22.04.2013)

(25) Filing Language: English

(26) Publication Language: English

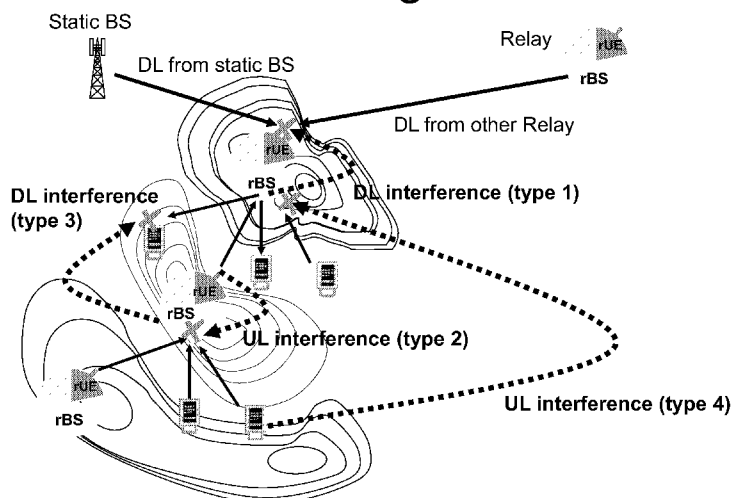
(30) Priority Data:
219328 22 April 2012 (22.04.2012) IL
221322 6 August 2012 (06.08.2012) IL
222563 21 October 2012 (21.10.2012) IL(71) Applicant: **ELTA SYSTEMS LTD.** [IL/IL]; 100
Yitzhak Hanassi Blvd., P.O.B. 330, 77102 Ashdod (IL).(72) Inventors: **SHOSHAN, Yaakov**; 13 Derech Hayayin,
7847607 Ashkelon (IL). **SCHWARTZ, Adi**; 26 Kdoshey
Kahir Street, 58362 Holon (IL).(74) Agent: **REINHOLD COHN AND PARTNERS**; P.O.Box
13239, 6113102 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, BN, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU,
RW, 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, 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,
ML, MR, NE, SN, TD, TG).

Published:

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

(54) Title: APPARATUS AND METHODS FOR MOVING RELAY INTERFERENCE MITIGATION IN MOBILE E.G. CELLU-
LAR COMMUNICATION NETWORKS

Fig. 4



(57) Abstract: A system for multicarrier cellular communication in a cellular network including a multiplicity of nodes, the system comprising, at an individual moving relay from among the multiplicity of nodes, an r BS having downlink communication, according to a protocol, with UEs served thereby; and a co-located r RM (relay Resource Manager) having a controller; wherein the controller is operative to induce the r BS to generate a selective minimally interfered region in a domain and/or to coordinate between schedulers in the relay to ensure that each user has its own time and/or frequency such that channels do not overlap because time and/or frequency are shifted to prevent the overlap.