



## (51) International Patent Classification:

*H04B* 7/00 (2006.01)      *H04B* 7/185 (2006.01)  
*H04B* 7/14 (2006.01)      *H04B* 10/00 (2013.01)  
*H04B* 7/15 (2006.01)      *H04B* 10/11 (2013.01)

## (21) International Application Number:

PCT/US2017/023431

## (22) International Filing Date:

21 March 2017 (21.03.2017)

## (25) Filing Language:

English

## (26) Publication Language:

English

## (30) Priority Data:

62/311,814      22 March 2016 (22.03.2016)      US  
 15/465,356      21 March 2017 (21.03.2017)      US

(71) Applicant: **LONESTAR, LLC** [US/US]; 80 Cuttermill Road, Suite 309, Great Neck, NY 11021 (US).

(72) Inventors: **DAMAGHI, Daniel M.**; 80 Cuttermill Road, Great Neck, NY 11021 (US). **HARLEY, Ohad**; 10 Heaton Court, Closter, NJ 07624 (US). **LITVIN, Ariel**; 80 Cuttermill Road, Great Neck, NY 11021 (US). **WILLNER, Alan Eli**; 9326 Sawyer Street, Los Angeles, CA 90335 (US). **BARAK, Naftaly**; 7 Hayasmin Street, Petah-Tikva (IL). **MCMANAMON, Paul Francis**; 4161 Spruce Pine Court, Dayton, OH 45424 (US). **MCGUFFIN, Asher**; 80 Cuttermill Road, Great Neck, NY 11021 (US).

(74) Agent: **BRIEGER, George**; Ostrolenk Faber LLP, 1180 Avenue of the Americas, New York, NY 10036 (US).

(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, 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.

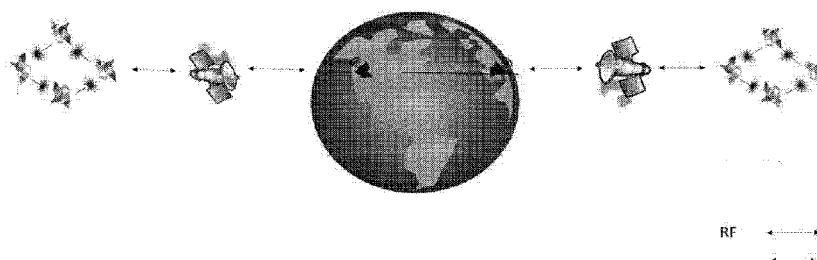
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, 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).

## 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))

## (54) Title: DATA IN MOTION STORAGE SYSTEM AND METHOD

Fig. 1



(57) Abstract: A data storage system is disclosed that includes a recirculating loop storing data in motion. The data may be carried by a signal via the loop including one or more satellites or other vessels that return, for example by reflection or regeneration, the signals through the loop. The loop may also include a waveguide, for example an optical fiber, or an optical cavity. Signal multiplexing may be used to increase the contained data. The signal may be amplified at each roundtrip and sometimes a portion of the signal may be regenerated.