

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
22 June 2023 (22.06.2023)



(10) International Publication Number
WO 2023/114054 A1

- (51) **International Patent Classification:**
G01R 35/04 (2006.01) *G01R 22/10* (2006.01)
- (21) **International Application Number:**
PCT/US2022/052047
- (22) **International Filing Date:**
06 December 2022 (06.12.2022)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
17/549,522 13 December 2021 (13.12.2021) US
- (71) **Applicant:** LANDIS+GYR INNOVATIONS, INC.
[US/US]; 30000 Mill Creek Avenue, Suite 100, Alpharetta,
Georgia 30022 (US).
- (72) **Inventor:** BOBICK, David Andrew; 104 Blackhawk
Lane, West Lafayette, Indiana 47906 (US).
- (74) **Agent:** HARRIS, Christopher P. et al.; 1300 E. 9th Street,
Suite 1700, Cleveland, Ohio 44114 (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, CV, CZ, DE, DJ, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE,

KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU,
LY, MA, MD, 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, ST, SV, SY, TH,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS,
ZA, ZM, ZW.

- (84) **Designated States** (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, CV,
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, ME, 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).

Declarations under Rule 4.17:

- as to the identity of the inventor (Rule 4.17(i))
- as to the applicant's entitlement to claim the priority of the
earlier application (Rule 4.17(iii))

Published:

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

(54) **Title:** GENERATING SIMULATED WAVEFORMS FOR AN ELECTRIC METER

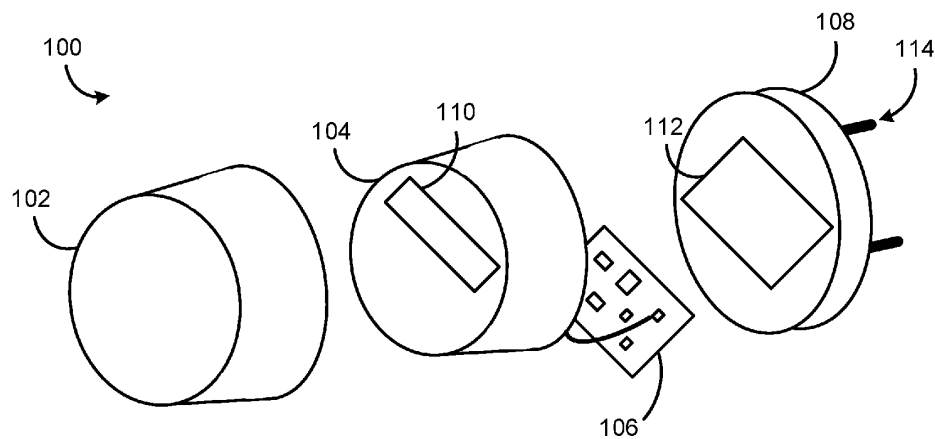


FIG. 1

(57) **Abstract:** Techniques for generating simulated waveforms for an electric meter include operating a meter in simulation mode without an external load device connected to the meter. Simulated waveforms are generated for a number of channels based on waveform component values. The waveforms are generated at a rate that corresponds to a sample rate of an analog to digital converter (ADC) of the meter. In simulation mode, the waveforms are provided to a meter firmware interface, instead of the waveform data obtained from the ADC.

WO 2023/114054 A1