

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
27 September 2018 (27.09.2018)



(10) International Publication Number
WO 2018/170598 A1

(51) International Patent Classification:

H05B 37/00 (2006.01) *F21S 2/00* (2016.01)
F21K 9/00 (2016.01) *H02M 3/00* (2006.01)

(21) International Application Number:

PCT/CA2018/050346

(22) International Filing Date:

22 March 2018 (22.03.2018)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/475,049 22 March 2017 (22.03.2017) US

(71) Applicant: **10644137 CANADA INC.** [CA/CA]; 30 Autumn Circle SE, Calgary, Alberta T3M 0J6 (CA).

(72) Inventors: **PAHLEVANINEZHAD, Majid**; 177 Rockyspring TC NW, Calgary, Alberta T3G 5Z7 (CA). **SCHERWITZ, Sam**; 30 Autumn Circle SE, Calgary, Alberta T3M 0J6 (CA).

(74) Agent: **GOWLING WLG (CANADA) LLP** et al.; 421-7th Avenue SW, Calgary, Alberta T2P 4K9 (CA).

(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,

(54) Title: LED APPARATUS WITH INTEGRATED POWER SUPPLY AND A METHOD OF EMPLOYING SAME

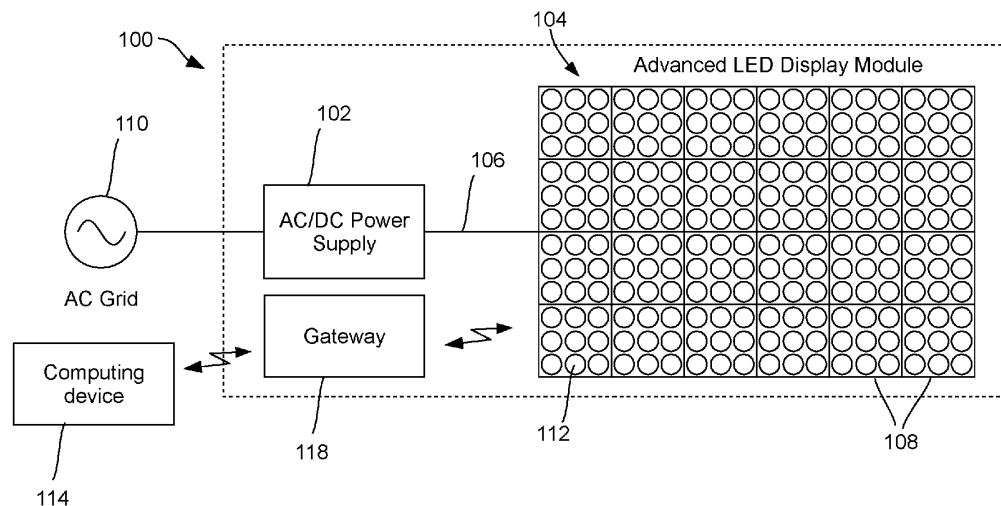


FIG. 3

(57) Abstract: A Light-Emitting Diode (LED) apparatus has a power source outputting a source DC power at a source DC voltage, a plurality of LEDs drivable at a driving DC voltage lower than the source DC voltage, and an electrical path connecting the power source to each LED for powering the LED by the power source. Each electrical path comprises a first portion connected to the power source at the source DC voltage and a second portion connected to the LED at the driving DC voltage, and the length of the first portion is longer than that of the second portion.

[Continued on next page]

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))*
- *in black and white; the international application as filed
contained color or greyscale and is available for download
from PATENTSCOPE*