

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
16 December 2021 (16.12.2021)



(10) International Publication Number
WO 2021/248248 A1

(51) International Patent Classification:

A61B 5/398 (2021.01) *G16H 50/50* (2018.01)
A61B 3/10 (2006.01) *G06N 20/00* (2019.01)
G16H 50/20 (2018.01)

(21) International Application Number:

PCT/CA2021/050796

(22) International Filing Date:

11 June 2021 (11.06.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/038,257	12 June 2020 (12.06.2020)	US
63/149,508	15 February 2021 (15.02.2021)	US
PCT/CA2021/050390		
	25 March 2021 (25.03.2021)	CA
17/212,410	25 March 2021 (25.03.2021)	US

(71) Applicant: **DIAMENTIS INC.** [CA/CA]; 2875 Boulevard
Laurier, Suite D1-11, Tour 1, Québec, Québec G1V 0B9
(CA).

(72) Inventor: **HARITON, Claude**; 3656 Rte Marie-Victorin,
Saint Antoine de Tilly, Québec G0S 2C0 (CA).

(74) Agent: **BCF LLP**; 2500-1100 Boul René-Lévesque O,
Montréal, Québec H3B 5C9 (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, IT, 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, 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, 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: SYSTEMS AND METHODS FOR COLLECTING RETINAL SIGNAL DATA AND REMOVING ARTIFACTS

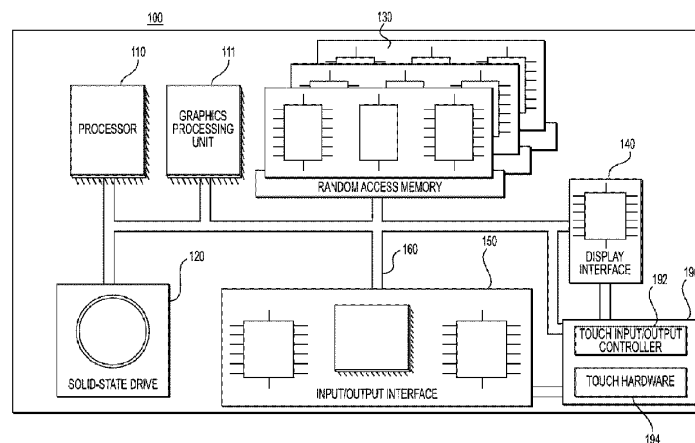


Figure 1

(57) Abstract: There is disclosed a method and system for generating retinal signal data. Calibration data corresponding to an individual may be received. A threshold impedance may be determined based on the calibration data. Retinal signal data corresponding to the individual may be received. The impedance of the circuit collecting the retinal signal data may be compared to the threshold impedance to determine whether the retinal signal data contains any artifacts. A portion of the retinal signal data corresponding to the artifacts may be removed from the retinal signal data.

[Continued on next page]



WO 2021/248248 A1

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 applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii))*

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*