



- (51) International Patent Classification:  
*G01C 21/26* (2006.01)
- (21) International Application Number:  
PCT/US2012/030351
- (22) International Filing Date:  
23 March 2012 (23.03.2012)
- (25) Filing Language:  
English
- (26) Publication Language:  
English
- (30) Priority Data:  
13/071,254 24 March 2011 (24.03.2011) US
- (71) Applicant (for all designated States except US): **JOHNSON CONTROLS TECHNOLOGY COMPANY** [US/US]; 915 East 32nd Street, Holland, MI 49423 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **MIGNEN, Claude** [FR/FR]; 18 rue des Morilles, 95490 Vaureal (FR). **CAMPBELL, Douglas, C.** [US/US]; 7717 Five Mile Rd., Northville, MI 48168 (US). **SANDERS, Todd** [US/US]; 10984 Thornberry Way, Zeeland, MI 49464 (US). **MICHERHUIZEN, Mark** [US/US]; 11091 Tarry Town Drive, Holland, MI 49423 (US).

(74) Agents: **KANTOR, Andrew, L.** et al.; P.O. Box 692289, Houston, TX 77269 (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, 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, 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.

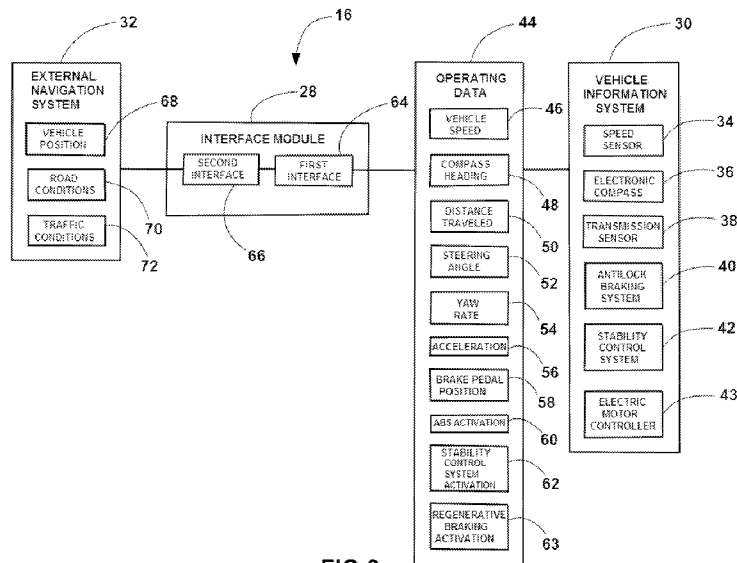
(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU,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

**Declarations under Rule 4.17:**

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

[Continued on next page]

(54) Title: SYSTEM AND METHOD FOR TRANSFERRING VEHICLE OPERATING DATA TO AN EXTERNAL NAVIGATION SYSTEM



**FIG. 3**

(57) Abstract: A vehicle information system is provided that includes an interface module configured to receive operating data from a vehicle information system. The interface module is also configured to transfer the operating data to a navigation system that is not built-in to the vehicle to facilitate vehicle position determination without using external positioning signals received or processed by the vehicle.

WO 2012/129502 A3



---

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))* — *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))*

**Published:**

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

**(88) Date of publication of the international search report:**  
4 April 2013

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/US2012/030351

**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. G01C21/26  
 ADD.  
 According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**  
 Minimum documentation searched (classification system followed by classification symbols)  
 G01C

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
 EPO-Internal

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	US 2011/313656 A1 (MIGNEN CLAUDE [FR] ET AL) 22 December 2011 (2011-12-22) claims 1-20	1,11,16
X	WO 2008/037472 A2 (TOM TOM INT BV [NL]; SIEREVELD MARTIN [NL]; DE JONG JOCHEM [NL]; TKACH) 3 April 2008 (2008-04-03) pages 6,7,16; claim 1; figure 1	1-3, 7-12, 14-20
Y	WO 2008/037471 A2 (TOM TOM INT BV [NL]; SIEREVELD MARTIN [NL]; DE JONG JOCHEM [NL]; TKACH) 3 April 2008 (2008-04-03) page 6; figure 1	4
Y	WO 2008/037472 A2 (TOM TOM INT BV [NL]; SIEREVELD MARTIN [NL]; DE JONG JOCHEM [NL]; TKACH) 3 April 2008 (2008-04-03) page 6; figure 1	4

Further documents are listed in the continuation of Box C.       See patent family annex.

\* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"E" earlier application or patent but published on or after the international filing date	"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)	"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search  14 June 2012	Date of mailing of the international search report  20/02/2013
---	--

Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3016	Authorized officer  de la Rosa Rivera, E
--	--

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2012/030351

## Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1.  Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2.  Claims Nos.:  
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
  
3.  Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
  
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
  
3.  As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
  
4.  No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

1-4, 7-12, 14-19(completely); 20(partially)

### Remark on Protest

- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- No protest accompanied the payment of additional search fees.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4, 7-12, 14-19(completely); 20(partially)

A second interface within an interface module between a navigation system and a vehicle communication network.

---

2. claims: 5, 6, 13(completely); 20(partially)

An interface between an off-board navigation system and a vehicle communication network

---

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2012/030351
---

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2011313656	A1	22-12-2011	NONE
WO 2008037472	A2	03-04-2008	AR 064236 A1 25-03-2009
			AR 064237 A1 25-03-2009
			EP 2069716 A2 17-06-2009
			EP 2069717 A2 17-06-2009
			EP 2180294 A2 28-04-2010
			EP 2196771 A2 16-06-2010
			EP 2207012 A2 14-07-2010
			JP 2010505097 A 18-02-2010
			JP 2010505098 A 18-02-2010
			TW 200825443 A 16-06-2008
			TW 200827760 A 01-07-2008
			US 2009240427 A1 24-09-2009
			US 2010004853 A1 07-01-2010
			WO 2008037471 A2 03-04-2008
			WO 2008037472 A2 03-04-2008
WO 2008037471	A2	03-04-2008	AR 064236 A1 25-03-2009
			AR 064237 A1 25-03-2009
			EP 2069716 A2 17-06-2009
			EP 2069717 A2 17-06-2009
			EP 2180294 A2 28-04-2010
			EP 2196771 A2 16-06-2010
			EP 2207012 A2 14-07-2010
			JP 2010505097 A 18-02-2010
			JP 2010505098 A 18-02-2010
			TW 200825443 A 16-06-2008
			TW 200827760 A 01-07-2008
			US 2009240427 A1 24-09-2009
			US 2010004853 A1 07-01-2010
			WO 2008037471 A2 03-04-2008
			WO 2008037472 A2 03-04-2008