

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

# PCT

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**  
(PCT Rule 43*bis*.1)

To:          see form PCT/ISA/220
---

Date of mailing (day/month/year) see form PCT/ISA/210 (second sheet)
---

Applicant's or agent's file reference see form PCT/ISA/220	<b>FOR FURTHER ACTION</b> See paragraph 2 below
---	--

International application No. PCT/EP2017/069547	International filing date (day/month/year) 02.08.2017	Priority date (day/month/year)
--	--	--------------------------------

International Patent Classification (IPC) or both national classification and IPC INV. G02C7/08 G02C7/14 G02C11/00 ADD. G02B27/01
--

Applicant HUAWEI TECHNOLOGIES CO , LTD
---

1. This opinion contains indications relating to the following items:



- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of invention
- Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA") except that this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of 3 months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

Name and mailing address of the ISA:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Fax: +49 89 2399 - 4465	Date of completion of this opinion  see form PCT/ISA/210	Authorized Officer  de Lajarte, Gilles  Telephone No. +49 89 2399-0	
---	--	---	---

---

**Box No. I Basis of the opinion**

---

1. With regard to the **language**, this opinion has been established on the basis of:
  - the international application in the language in which it was filed.
  - a translation of the international application into , which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b)).
2.  This opinion has been established taking into account the **rectification of an obvious mistake** authorized by or notified to this Authority under Rule 91 (Rule 43bis.1(a))
3.  With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, this opinion has been established on the basis of a sequence listing:
  - a.  forming part of the international application as filed:
    - in the form of an Annex C/ST.25 text file.
    - on paper or in the form of an image file.
  - b.  furnished together with the international application under PCT Rule 13ter.1(a) for the purposes of international search only in the form of an Annex C/ST.25 text file.
  - c.  furnished subsequent to the international filing date for the purposes of international search only:
    - in the form of an Annex C/ST.25 text file (Rule 13ter.1(a)).
    - on paper or in the form of an image file (Rule 13ter.1(b) and Administrative Instructions, Section 713).
4.  In addition, in the case that more than one version or copy of a sequence listing has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that forming part of the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
5. Additional comments:

---

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

---

1. Statement

Novelty (N)	Yes: Claims	
	No: Claims	<u>1-16</u>
Inventive step (IS)	Yes: Claims	
	No: Claims	<u>1-16</u>
Industrial applicability (IA)	Yes: Claims	<u>1-16</u>
	No: Claims	

2. Citations and explanations

see separate sheet

The examination is being carried out on the **following application documents**

**Description, Pages**

1-9 as originally filed

**Claims, Numbers**

1-16 as originally filed

**Drawings, Sheets**

1/4-4/4 as originally filed

**item V**

**1 Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

The present application does not meet the criteria of Article 33(2, 3) PCT, because the subject-matter of the claims is either not novel or not inventive.

Reference is made to the following documents:

- D1 US 2007/046887 A1 (HOWELL THOMAS A [US] ET AL) 1 March 2007 (2007-03-01)
- D2 US 6 474 808 B1 (BETTINGER DAVID S [US]) 5 November 2002 (2002-11-05)
- D3 US 2012/127420 A1 (BLUM RONALD D [US] ET AL) 24 May 2012 (2012-05-24)
- D4 US 2012/249797 A1 (HADDICK JOHN D [US] ET AL) 4 October 2012 (2012-10-04)
- D5 US 4 806 011 A (BETTINGER DAVID S [US]) 21 February 1989 (1989-02-21)
- D6 US 1 879 516 A (JOHN ROWAN) 27 September 1932 (1932-09-27)

- D7 US 2015/279254 A1 (ZHENG XIAOPAN [CN] ET AL) 1 October 2015  
(2015-10-01)
- D8 WO 2016/044612 A1 (GEN NINE INC) 24 March 2016 (2016-03-24)
- D9 US 6 057 966 A (CARROLL DAVID W [US] ET AL) 2 May 2000  
(2000-05-02)

1.1 Independent claim 1

1.1.1 Document D1 discloses an eyeglass frame

(Fig 11B, (1100); [0169] shows a module in the front frame, but the same module can be implicitly mounted in the temples, see e.g. Fig 3K, (1356), [0086]; [0087], "snap")

comprising a front piece (Fig 11B, (1112))

and a pair of temples (1108, 1110), each temple (1108, 1110) being hingedly connected (1115) to an end of said front piece (1112) to allow said temples (1108, 1110) to move between a folded and an open position (Fig 12B, 12C), at least one temple (Fig 11B, (1112)) comprising an adapter for receiving an electronic device (Fig 11B, (1122); [0169], "the extended end piece 1113 can also include a cavity (or opening) and a cover. The module 1122 can be inserted or removed from the cavity by way of the cover").

1.1.2 Thus, the device of D1 can be construed as disclosing all the features of claim 1, its subject matter being therefore not novel (Article 33(2) PCT).

1.1.3 The same objection of lack of novelty applies *mutatis mutandis* to

D2 (Fig 1, the "Object" can be construed as being placed on the temple via an "adapter", since claim 1 does not define any feature of the adapter),

D3 (Fig 3, (307); [0253, 0276], "snapped"),

D4 (Fig 21, (2124, 2140, 2118); [0137], "The left and right ear pieces 2104 each vertically mount a projector or microprojector 2114 or other image source atop a spring-loaded hinge 2128 for easier assembly and vibration/shock protection") or

D5 (Fig 1, (24); Fig 2, (30); Fig 6; claim 6, "removably mounting a translucent display on [a] temple, and [...] directing light [...] onto [a] relay mirror [...]).

1.1.4 Alternatively, D2 (Fig 1, 2, 4, 6; Col 4, L 25-35) discloses a temple onto which an electronic module is placed. Even if it could be convincingly argued that there is no explicit and unambiguous disclosure of a temple - electronic device connection provided by an adapter for receiving the electronic device, this would be either implicit (some features of the temple helping receiving the display) or obvious in the light of common general knowledge or in the light of D1 (Fig 11B, [0169]) or D3 (Fig 3, (307); [0253, 0276], "snapped"), D5 (Fig 2), D8 (Fig 2; [0033]).

1.1.5 Remark: the idea to use an electronic module both in a spectacles or in a wrist watch is generally known, see e.g. D7 (Fig 21B, 22B), D8 (Fig 1; [0028, 0050]) or D9 (Fig 3, 29)

## 1.2 Remaining claims

The subject matter of the remaining claims does not appear to contain any additional features which, in combination with the features of any claim to which it refers, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2, 3) PCT), the reasons being as follows:

- claim 2: an optical element connected to front piece adapted for reflecting light (D2, Fig 1, (15); D3, [0069], "displays"; D5, Fig 2, 6, claim 6),

remark: claim 2 should refer to "the electronic device" rather than "an electronic device", otherwise two distinct electronic devices (one for claim 1 and one for claim 2) could be meant.

- claim 3: optical element semi-transparent or opaque (implicitly the case for either mirrors or even semi-transparent lenses; disclosed in D1-D5),

- claim 4: optical element comprises optical focussing means (D1-D5 each discloses prescription spectacles which include an optical element with focussing mean - the lens itself; in D2, the mirror has a focussing function, see claim 1; D4, [0280], "variable focus lens 2152"; D5, Fig 6, (71, 76); Col 3, L 66-67)),

- claim 5: optical element with two degrees of freedom (D2, Fig 1, 2, 4, 6; not inventive with (D2, Fig 1 or D4, Fig 1 or D5, Fig 2) combined with D6, Fig 2),
- claim 6: optical element connected to said shaft element by means of a C-shaped gripper adapted for snapping onto said shaft element  
(not inventive with (D2, Fig 1 or D4, Fig 1 or D5, Fig 2) combined with D6, Fig 2, because claim 6 does not exclude that the shaft is part of the rim or bridge),
- claim 7: adapter [with] locking means arranged at one end of each temple part, respectively, for interlocking with said electronic device (see objection against claim 1 which apply here mutatis mutandis),
- claim 8: cover plate (well-known alternative; D1, [0068, 0169]; D3, [0298]),
- claim 9: recess in temple (this is the case for D1, D3-D5, see objection against claim 1 above),
- claims 10, 11: mechanical connection, snap (see objection against claim 1 above),
- claims 12-16: various electronic modules (well-known options, see e.g. D1, Fig 4, 5 or D4, [0342, 0347, 0382]; Fig 22, (2112)).