

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:
 100005
 China Yuan CHEN, 10th Floor, Tower D, Minsheng
 Financial Center, 28 Jianguomennei Avenue,
 Dongcheng District., Beijing

TEE&HOWE INTELLECTUAL PROPERTY
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PCT

WRITTEN OPINION OF THE
 INTERNATIONAL SEARCHING AUTHORITY

(PCT Rule 43bis.1)

Date of mailing (day/month/year) 30 May 2018	
Applicant's or agent's file reference UP-172114-02	FOR FURTHER ACTION See paragraph 2 below
International application No. PCT/CN2017/099983	International filing date (day/month/year) 31 August 2017
International Patent Classification (IPC) or both national classification and IPC H01L 29/786(2006.01)i	
Applicant BOE TECHNOLOGY GROUP 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 43bis.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 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 66.1bis(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/ STATE INTELLECTUAL PROPERTY OFFICE OF THE P.R.CHINA China 6, Xitucheng Rd., Jimen Bridge, Haidian District, Beijing 100088	Date of completion of this opinion 25 May 2018	Authorized officer LUO,Huijing
Facsimile No. (86—10) 62019451	Telephone No. 86-(10)-53961204	

WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY

International application No.

PCT/CN2017/099983

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 43*bis*.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 13*ter*.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 13*ter*.1(a)).
 - on paper or in the form of an image file (Rule 13*ter*.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:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/CN2017/099983

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

1. Statement

Novelty (N)	Claims	<u>4, 6, 10, 12, 15-18, 20, 22</u>	YES
	Claims	<u>1-3, 5, 7-9, 11, 13-14, 19, 21</u>	NO
Inventive step (IS)	Claims	<u>None</u>	YES
	Claims	<u>1-22</u>	NO
Industrial applicability (IA)	Claims	<u>1-22</u>	YES
	Claims	<u>None</u>	NO

2. Citations and explanations :

- [1] Cited document:
- [2] D1: CN103247691A (14.08.2013)
- [3] D1 discloses a thin film transistor, an array substrate, a display apparatus and a method of fabricating above structures (see description, paragraphs [0042]-[0054], figure 2).
- [4] The thin film transistor (TFT) comprises:
- [5] a first source electrode (140a) and a first drain electrode (150a) spaced apart from each
- [6] other; an active layer (120) on the first source electrode (140a) and the first drain
- [7] electrode(150a), the active layer (120) having a channel part between the first source
- [8] electrode (140a) and the first drain electrode(150a), a source electrode contact part
- [9] electrically connected to the first source electrode (140a), and a drain electrode contact
- [10] part electrically connected to the first drain electrode (150a);a second source electrode
- [11] on a side of the source electrode contact part distal to the first source electrode (140a),
- [12] the second source electrode (140b) being electrically connected to the first source
- [13] electrode (140a); and a second drain electrode (150b)on a side of the drain electrode
- [14] contact part distal to the first drain electrode(150a), the second drain electrode (150b) being electrically connected to the first drain electrode (150a).
- [15] Therefore, claims 1, 13 lack novelty in the sense of PCT Article 33(2) and don't involve an inventive step in the sense of PCT Article 33(3).
- [16] Dependent claims 2-8 refer to claim 1 directly or indirectly, the additional technical features of claims 2-3,5,7-8 are disclosed in D1(see description, paragraphs [0042]-[0054], figure 2); the additional technical features of claims 4,6 are not disclosed in D1, but are commonly known in the art. Hence, claims 2-3, 5, 7-8 lack novelty in the sense of PCT Article 33(2) and don't involve an inventive step in the sense of PCT Article 33(3); claims 4, 6 are novel in the sense of PCT Article 33(2) and don't involve an inventive step in the sense of PCT Article 33(3).
- [17] Dependent claims 14-20 refer to claim 13 directly or indirectly, the additional technical features of claims 14, 19 are disclosed in D1(see description, paragraphs [0042]-[0054], figure 2); the additional technical features of claims 15-18, 20 are not disclosed in D1, but are commonly known in the art. Hence, claims 14, 19 lack novelty in the sense of PCT Article 33(2) and don't involve an inventive step in the sense of PCT Article 33(3);
- [18] claims 15-18, 20 are novel in the sense of PCT Article 33(2) and don't involve an inventive step in the sense of PCT Article 33(3).
- [19] As claims 9,11 comprising any one of claims 1-8, thus claims 9,11 are novel and not novel respectively in the sense of PCT Article 33(2) when citing different claims, and don't involve an inventive step in the sense of PCT Article 33(3), the additional technical features of claims 10,12 are not disclosed in D1, but

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INTERNATIONAL SEARCHING AUTHORITY**

International application No.

PCT/CN2017/099983

Box No. V

**Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step and industrial applicability;
citations and explanations supporting such statement**

are commonly known in the art, thus claims 10, 12 are novel in the sense of PCT Article 33(2) and don't involve an inventive step in the sense of PCT Article 33(3).

[20] As claim 21 comprising any one of claims 13-20, thus claim 21 is novel and not novel in the sense of PCT Article 33(2) respectively when citing different claims, and doesn't involve an inventive step in the sense of PCT Article 33(3), the additional technical features of claim 22 are not disclosed in D1, but are commonly known in the art, thus claim 22 is novel in the sense of PCT Article 33(2) and doesn't involve an inventive step in the sense of PCT Article 33(3).

[22] II Industrial Applicability

[23] Claims 1-22 meet the criteria set out in PCT Article 33(4).