506218639 08/24/2020

# PATENT ASSIGNMENT COVER SHEET

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| SUBMISSION TYPE:      | NEW ASSIGNMENT |
|-----------------------|----------------|
| NATURE OF CONVEYANCE: | ASSIGNMENT     |

### **CONVEYING PARTY DATA**

| Name  | Execution Date |
|---|----------------|
| BEIJING DEEPHI INTELLIGENT TECHNOLOGY CO., LTD. | 08/17/2020     |

## **RECEIVING PARTY DATA**

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## **PROPERTY NUMBERS Total: 12**

| Property Type       | Number   |
|---------------------|----------|
| Application Number: | 15860772 |
| Application Number: | 15242624 |
| Application Number: | 15242622 |
| Application Number: | 15693491 |
| Application Number: | 15693490 |
| Application Number: | 15975164 |
| Application Number: | 15620353 |
| Application Number: | 15247956 |
| Application Number: | 15390556 |
| Application Number: | 15390660 |
| Application Number: | 15390559 |
| Application Number: | 15380494 |

## **CORRESPONDENCE DATA**

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506218639 PATENT REEL: 053581 FRAME: 0037

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| SIGNATURE:              | /James J. Zhu, Reg. No. 52,396/          |  |
| DATE SIGNED:            | 08/24/2020                               |  |
|                         | •  |  |

**Total Attachments: 3** 

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> PATENT REEL: 053581 FRAME: 0038

### PATENT ASSIGNMENT AGREEMENT

THIS AGREEMENT is by and between <u>Beijing Deephi Intelligent Technology Co., Ltd.</u> having a place of business at <u>Room 1038</u>, First Floor, <u>Building A</u>, <u>Eastern Side of No. 58</u> <u>Dongbeiwang West Road</u>, <u>Haidian District</u>, <u>Beijing</u> ("**Assignor**") and <u>Xilinx Technology Beijing Limited</u>, having a place of business at <u>Unit 01-19</u>, Floor 10 and No. 101, Floor 6, <u>Building No. 5</u>, No. 5 Anding Road, Chaoyang District, <u>Beijing</u> ("**Assignee**").

Assignor warrants that it is the sole owner of the U.S. patent applications (the "Patent Applications") listed in Annex I of this Agreement and the inventions (the "Inventions") described in the Patent Applications.

Assignee desires to acquire the entire right, title and interest in and to the Patent Applications and the Inventions, and in and to any and all other patent applications that may be filed and patents (the "Patents") that may be granted for the Patent Applications and the Inventions in any and all countries and regions in the world.

For valuable consideration, the receipt and sufficiency of which it acknowledges, Assignor hereby irrevocably assigns and transfers to Assignee, any and all of such right, title and interest in and to: the Patent Applications, Patents, and the Inventions; any divisions, continuations, and continuations-in-part of the Patent Applications; any foreign applications of the Patent Applications and any divisions, continuations, and continuations-in-part of the foreign applications; any other applications claiming priority rights from any of the Patent Applications; any reissues, reexaminations, or extensions of the Patents; the right to file patent applications relating to the Inventions directly in the name of Assignee (in countries where such filings are permissible); the right to claim priority rights deriving from the Patent Applications; and the right to recover and take all such proceedings as may be necessary for the recovery of damages or otherwise in respect of all past, present or future acts of infringement or alleged infringement of the rights assigned and transferred by this Agreement (collectively, the "Rights"); and the Assignee hereby accepts the above assignment and transfer of the Patent Applications, Patents and Inventions, and all other rights assigned and/or transferred by this Agreement.



Assignor warrants that the Rights are unencumbered. Assignor also agrees to not sign any writing or do any act conflicting with this Agreement, and, without further compensation, sign all documents and do such additional acts as Assignee deems necessary or desirable to: perfect Assignee's enjoyment of the Rights; prepare and prosecute the Patent Applications or any other applications for patents; conduct proceedings regarding the Rights, including any litigation, invalidation or derivation proceedings; or perfect or defend title to the Rights. Assignor requests the Commissioner of Patents or any other office of similar authority to issue any Patents that may be issued to Assignee.

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|---|---------|
| Assignor: Beijing Deephi Intelligent Technology C | o Ita   |
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| Stamp   |         |
| 2020.8.17   |         |
| Date  |         |
| Assignee: Xilinx Technology Beljing Limited       |         |

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# Annex I:

**RECORDED: 08/24/2020** 

|    | Application Number | Title  | Country/area<br>of<br>Application | Filing Date |
|----|--------------------|--|-----------------------------------|-------------|
| 1  | 15/860,772         | UNMANNED AERIAL VEHICLE INTERACTIVE APPARATUS AND METHOD BASED ON DEEP LEARNING POSTURE ESTIMATION           | US                                | 2018-01-03  |
| 2  | 15/242,624         | DEEP PROCESSING UNIT (DPU) FOR IMPLEMENTING AN ARTIFICIAL NEURAL NETWORK (ANN)                               | US                                | 2016-08-22  |
| 3  | 15/242,622         | METHOD FOR OPTIMIZING AN ARTIFICIAL NEURAL NETWORK (ANN)   | US                                | 2016-08-22  |
| 4  | 15/693,491         | FIXED-POINT TRAINING METHOD FOR<br>DEEP NEURAL NETWORKS BASED ON<br>STATIC FIXED-POINT CONVERSION<br>SCHEME  | US                                | 2017-09-01  |
| 5  | 15/693,490         | FIXED-POINT TRAINING METHOD FOR<br>DEEP NEURAL NETWORKS BASED ON<br>DYNAMIC FIXED-POINT CONVERSION<br>SCHEME | US                                | 2017-09-01  |
| 6  | 15/975,164         | TARGET TRACKING HARDWARE IMPLEMENTATION SYSTEM AND METHOD  | US                                | 2018-05-09  |
| 7  | 15/620,353         | COMPUTING SYSTEM AND CONTROLLER THEREOF  | ÚS                                | 2017-06-12  |
| 8  | 15/247,956         | COMBINING CPU AND SPECIAL<br>ACCELERATOR FOR IMPLEMENTING AN<br>ARTIFICIAL NEURAL NETWORK                    | US                                | 2016-08-26  |
| 9  | 15/390,556         | COMPRESSION METHOD FOR DEEP<br>NEURAL NETWORKS WITH LOAD<br>BALANCE  | us                                | 2016-12-26  |
| 10 | 15/390,660         | COMPRESSION OF DEEP NEURAL<br>NETWORKS WITH PROPER USE OF<br>MASK  | us                                | 2016-12-26  |
| 11 | 15/390,559         | MULTI-ITERATION COMPRESSION FOR DEEP NEURAL NETWORKS   | US                                | 2016-12-26  |
| 12 | 15/380,494         | HARDWARE ACCELERATOR FOR<br>COMPRESSED LSTM  | US                                | 2016-12-15  |





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