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CATEGORY: Classification

TARIFF NO.: 8543.70.9960

Christopher Romero
Signal Power and Light
17 Executive Part Drive, NE 405
Atlanta, GA 30329

RE: The tariff classification of cryptocurrency mining machines from China

Dear Mr. Romero:

In your letter dated May 29, 2018 you requested a tariff classification ruling.

You have provided two items for consideration, both of which are used in mining various types of cryptocurrency. The first item is referred to as the Antminer S9 which consists of an aluminum enclosure, two cooling fans, a control board printed circuit board assembly (PCBA), and three separate PCBAs that are commonly referred to as hashboards. The control board has an Ethernet port, an IP pushbutton, a reset pushbutton, two status indicators, and a slot for an SD memory card. Each hashboard is populated with numerous application specific integrated circuits (ASICs) and heat sinks on both sides.

In use, the Antminer S9 has a dedicated function of performing hash calculations for cryptocurrency transactions. Power supplies are attached to each hashboard and the Antminer S9 is connected to a network via the Ethernet port. Users would address the Antminer S9 with a separate automatic data processing (ADP) machine and configure the device to perform the mining calculations for their selected cryptocurrency. We would note that neither the power supplies nor the ADP machine are imported with the Antminer S9.

The second item under consideration is referred to as the DragonMint Miner which consists of an aluminum enclosure, a control board, and three PCBA hashboards. The control board has an Ethernet port, an IP pushbutton, a reset pushbutton, two status indicators, and a slot for an SD memory card. Each hashboard is populated with numerous ASICs and heat sinks on both sides. Like the Antminer S9, the DragonMint Miner is a machine dedicated to performing hash calculations for cryptocurrency transactions. Once users connect a separate power supply to the hashboards and an Ethernet connection to the controller, they would address the mining device with a separate ADP machine and configure the unit to perform the mining calculations. Neither the power supplies nor the ADP machine are imported with the DragonMint Miner.

You suggest the subject cryptocurrency miners are properly classified under 8471.50.1050, Harmonized Tariff Schedule of the United States (HTSUS), which provides for "Automatic data processing machines and units thereof… Processing units other than those of subheading 8471.41 or 8471.49, whether or not containing in the same housing one or two of the following types of unit: storage units, input units, output units: Other." This office disagrees with the proposed classification.

Merchandise is classifiable under the HTSUS in accordance with the General Rules of Interpretation (GRIs). The systematic detail of the HTSUS is such that most goods are classified by application of GRI 1, that is, according to the terms of the headings of the tariff schedule and any relative Section or Chapter Notes. In the event that the goods cannot be classified solely on the basis of GRI 1, and if the headings and legal notes do not otherwise require, the remaining GRIs 2 through 6 may then be applied in order.

Heading 8471, HTSUS, is governed by the terms of Note 5 to Chapter 84, HTSUS, which provides, in relevant part:

> (A) For the purposes of heading 8471, the expression "automatic data processing machines" means machines capable of:
> > (i) Storing the processing program or programs and at least the data immediately necessary for the execution of the program;
> > (ii) Being freely programmed in accordance with the requirements of the user;
> > (iii) Performing arithmetical computations specified by the user; and
> > (iv) Executing, without human intervention, a processing program which requires them to modify their execution, by logical decision during the processing run.
>
> (C) Subject to paragraphs (D) and (E) below, a unit is to be regarded as being part of an automatic data processing system if it meets all of the following conditions:
> > (i) It is of a kind solely or principally used in an automatic data processing system;
> > (ii) It is connectable to the central processing unit either directly or through one or more other units; and
> > (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.
>
> (E) Machines incorporating or working in conjunction with an automatic data processing machine and performing a specific function other than data processing are to be classified in the headings appropriate to their respective functions or, failing that, in residual headings.

Section XVI, Note 4, HTSUS, states, in relevant part:

> Where a machine (including a combination of machines) consists of individual components (whether separate or interconnected by piping, by transmission devices, by electric cables or by other devices) intended to contribute together to a clearly defined function covered by one of the headings in chapter 84 or chapter 85, then the whole falls to be classified in the heading appropriate to that function.

In understanding the language of the HTSUS, the Harmonized Commodity Description and Coding System Explanatory Notes (ENs), although not dispositive or legally binding, provide a commentary on the scope of each heading of the HTSUS, and are the official interpretation of the Harmonized System at the international level. See T.D. 89-80, 54 Fed. Reg. 35127, 35128 (August 23, 1989). In EN 84.71(B) (2017), it is explained that an apparatus can only be classified in this heading as a unit of an automatic data processing system if it:

    (a) Performs a data processing function;
    (b) Meets the following criteria set out in Note 5 (C) to this Chapter :
        (i) It is of a kind solely or principally used in an automatic data processing system;
        (ii) It is connectable to the central processing unit either directly or through one or more other units; and
        (iii) It is able to accept or deliver data in a form (codes or signals) which can be used by the system.
    (c) Is not excluded by the provisions of Notes 5 (D) and (E) to this Chapter.

With regard to classification of the subject mining machines as an ADP machine in subheading 8471.50, HTSUS, we would note that the devices meet the requirements of Note 5 (A)(i) and (iv) in that they store the execution data and can automatically make logical decisions during the processing run. However, as the ENs explain in 84.71 (I), machines which operate only on fixed programs which cannot be modified by the user are excluded from heading 8471, HTSUS, even though the user may be able to choose between a number of fixed programs. Consequently, the merchandise does not meet the requirements of Note 5 (A)(ii), which requires that ADP machines be freely programmable. A freely programmable ADP machine is one for which applications can be written, does not impose artificial limitations upon such applications, and will accept new applications that allow the user to manipulate the data as deemed necessary by the user. See, e.g., Optrex America Inc. v. United States, 472 F. Supp. 2d. 1177 (Ct. Int'l Trade 2006), aff'd, 745 F.3d 1367 (Fed. Cir. 2007). As a result of not being able to simultaneously fulfill all of the requirements of Note 5 (A) to Chapter 84, HTSUS, the subject merchandise cannot be classified as an ADP machine.

Turning to classification of the subject mining machines as units of an ADP machine, we have established that both the Antminer S9 as well as the DragonMint Miner are indirectly connected to an ADP system, that the devices receive their instruction from said system, and that they consist of a controller PCBA and individual hashboards. Each ASIC, and collectively together as a hashboard assembly, performs the specific function of solving the mathematical problems using internal programming it receives from the controller PCBA. The result of these thousands of cryptographic hash calculations per second is the possibility for an associated block of data to be completed, thereby receiving compensation, which we identify as mining.

Based on the dedicated nature of the mining machine, we would point to Note 5 (E) to Chapter 84 which precisely addresses the question of whether or not the mining machines can be classified as a unit of an ADP machine. In Note 5 (E) we are directed to exclude machines that perform a specific function which is not data processing. The Antminer S9 and the DragonMint Miner are completely dedicated to the mining function. The mining function is particularly specialized and machines

dedicated to this function are nearly autonomous once the target currency is programmed onto the control board. The ADP machine is only used to configure the mining device and receive status of its mining calculations. Furthermore, for the purpose of classifying ADP machines and their units, the process of mining cryptocurrency is not recognized as a data processing function. Thus, the Antminer S9 and the DragonMint Miner cannot be classified under heading 8471, HTSUS, as units of an ADP machine because they do not meet all of the requirements of Note 5 (C) to Chapter 84, HTSUS. Specifically, they are not solely or principally used with ADP machines and they perform a specific function other than data processing. See EN 84.71(I)(B).

Based on the information provided, the subject mining machines are limited in their capabilities since they are not freely programmable by the user and do not meet all the requirements of Note 5 (A) to Chapter 84, HTSUS. Moreover, because the mining machines have a dedicated function which is not data processing, Note 5 (E) requires that we classify the devices in residual headings.

By application of GRI 1, and Chapter 84 Note 5 (A) and (E), the applicable subheading for the Antminer S9 and DragonMint Miner will be 8543.70.9960, HTSUS, which provides for "Electrical machines and apparatus…: Other machines and apparatus: Other: Other: Other: Other". The rate of duty will be 2.6 percent ad valorem.

Duty rates are provided for your convenience and are subject to change. The text of the most recent HTSUS and the accompanying duty rates are provided on World Wide Web at https://hts.usitc.gov/current.

This ruling is being issued under the provisions of Part 177 of the Customs Regulations (19 C.F.R. 177).

A copy of the ruling or the control number indicated above should be provided with the entry documents filed at the time this merchandise is imported. If you have any questions regarding the ruling, contact National Import Specialist Karl Moosbrugger at karl.moosbrugger@cbp.dhs.gov.

Sincerely,

Steven A. Mack
Director
National Commodity Specialist Division