9111-14

DEPARTMENT OF HOMELAND SECURITY

U.S. CUSTOMS AND BORDER PROTECTION

NOTICE OF ISSUANCE OF FINAL DETERMINATION CONCERNING

TOSHIBA E-STUDIO MULTI-FUNCTION PERIPHERALS

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security.

ACTION: Notice of final determination.

SUMMARY: This document provides notice that U.S. Customs and Border Protection (‘‘CBP’’) has issued a final determination concerning the country of origin of certain Toshiba e-Studio Multi-function Peripherals (MFPs), which perform imaging, scanning, faxing, and printing functions. Based upon the facts presented, CBP has concluded that the country where the last substantial transformation takes place is Singapore. Therefore, the country of origin of the MFPs is Singapore for purposes of U.S. Government procurement.

DATE: The final determination was issued on June 5, 2012 . A copy of the final determination is attached. Any party-at-interest, as defined in 19 C.F.R. § 177.22(d), may seek judicial review of this final determination on or before [insert 30 days from date of publication in the Federal Register].

FOR FURTHER INFORMATION CONTACT: Heather K. Pinnock, Valuation and Special Programs Branch: (202) 325-0034.

SUPPLEMENTARY INFORMATION: Notice is hereby given that on June 5, 2012, pursuant to subpart B of Part 177, U.S. Customs and Border Protection

Regulations (19 C.F.R. Part 177, subpart B), CBP issued a final determination concerning the country of origin of certain Toshiba e-Studio MFPs which may be offered to the U.S. Government under an undesignated government procurement contract. This final determination, HQ H198875, was issued under procedures set forth at 19 C.F.R. Part 177, subpart B, which implements Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. § 2511–18). In the final determination, CBP concluded that, based upon the facts presented, the country where the last substantial transformation takes place is Singapore. Therefore, the country of origin of the MFPs is Singapore for purposes of U.S. Government procurement.

Section 177.29, CBP Regulations (19 C.F.R. § 177.29), provides that a notice of final determination shall be published in the *Federal Register* within 60 days of the date the final determination is issued. Section 177.30, CBP Regulations (19 C.F.R. § 177.30), provides that any party-at-interest, as defined in 19 C.F.R. § 177.22(d), may seek judicial review of a final determination within 30 days of publication of such determination in the *Federal Register*.

DATED: June 5, 2012

Sandra L. Bell
Executive Director
Regulations and Rulings
Office of International Trade

Attachment

HQ H198875

June 5, 2012

MAR OT:RR:CTF:VS H198875 HkP

CATEGORY: Origin

David T. Ralston Jr., Esq.
Foley & Lardner LLP
3000 K Street, NW
Suite 600
Washington, DC 20007-5109

RE: U.S. Government Procurement; Country of Origin of Toshiba e-Studio Multi-function Peripherals; Substantial Transformation

Dear Mr. Ralston:

This is in response to your letter, dated December 30, 2011, clarified on January 30, 2012, requesting a final determination on behalf of Toshiba America Business Solutions ("TABS"), pursuant to subpart B of part 177 of the U.S. Customs and Border Protection ("CBP") Regulations (19 C.F.R. Part 177). Under these regulations, which implement Title III of the Trade Agreements Act of 1979 ("TAA"), as amended (19 U.S.C. § 2511 et seq.), CBP issues country of origin advisory rulings and final determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain "Buy American" restrictions in U.S. law or practice for products offered for sale to the U.S. Government.

This final determination concerns the country of origin of eight models of Toshiba
e-Studio multi-function peripherals ("MFPs"). As a U.S. importer, TABS is a party-at-interest within the meaning of 19 C.F.R. § 177.22(d)(1) and is entitled to request this final determination.

FACTS:

Toshiba's MFPs perform imaging, scanning, faxing and printing functions. TABS imports eight models of MFPs from Singapore: (1) the e-Studio 3040CG; (2) the e-Studio 4540CG; (3) the e-Studio 5540CG; (4) the e-Studio 6540CG; (5) the e-Studio 306G; (6) the e-Studio 456G; (7) the e-Studio 656G; and, (8) the e-Studio 856G. The model numbers ending in "CG" offer full color printing while those ending in "G" offer monochrome printing only. Apart from this, the primary distinction between the model types is the speed at which they print documents. The model name incorporates the maximum page-per-minute ("ppm") output of each model. For example, the e-Studio 3040CG model prints a maximum of 30 ppm, and the e-Studio 856G model prints a maximum of 85 ppm. Each MFP model is primarily composed of the same major components and assemblies, and is manufactured using essentially the same processes performed in the same locations.

An MFP consists of the following components:

(1) **Logic Control ("LGC") Board**: a printed circuit board ("PCB") populated with hundreds of micro-miniaturized parts. It drives the laser and scaner, exposes the photosensitive drum to make a latent image, and otherwise regulates the electric photography process based on the print data received from the System ("SYS") Board (below); controls the transfer of toner from the drum to the paper while regulating feeding of the paper, the fixing of toner to the paper to complete the print image, and the ejection of the paper from the MFP; and, for photocopying, directs the scanning of original documents and sends the image data to the SYS Board. The LGC Board is manufactured in Singapore.

(2) **SYS Board**: a PCB populated with hundreds of micro-miniaturized parts. It allows the MFP to receive print data from the intranet, a scanner, an incoming fax, or through its copier function, convert the data and send it to the LGC board. It also allows the user to interface with the MFP by detecting key or touchscreen input and by sending image data to the display screen and displaying it. The SYS Board is manufactured in Singapore.

(3) **Control Panel**: used to operate the MFPs, consists of button and touch-panel switches, light emitting diodes ("LEDs") and a liquid crystal display ("LCD"). It is assembled in China.

(4) **Scanner**: irradiates the surface of the original document. The reflected light is directed to a charge-coupled device ("CCD") board using mirrors and lenses, where the optical image data is converted into an electrical signal that is transmitted to the SYS Board for further processing. It consists of different types of glass, an exposure lamp, a reflector, drive pulley, sensor, lens, CCD board, Scanner Logic Board ("SLG"), and other components. It is assembled in China.

(5) **Laser Optical Unit**: radiates a laser beam onto the photoconductive drum in response to the digital image signals transmitted from the scanner, Universal Serial Bus ("USB") port, or network to create a latent image. The image signal is converted into the light emission signal of the laser diode on the laser driving ("LDR") PCB, then radiated on the drum through optical elements such as lenses and mirrors. It is assembled in China.

(6) **Paper Feeding System**: feeds paper into the section of the MFP where the image is printed onto paper. It consists of several types of rollers, several types of sensors, and a drive system consisting of several motors. It is assembled in China.

(7) **Electrophotograph Processing Unit** ("**EPU**"): allows the formation of a latent image on the surface of the photoconductive drum within the unit. The EPU consists of two subassemblies, the process unit (the drum cleaner and developer unit) and the drive section. There are four

EPUs in each color printer, one for each color of toner used for color printing (yellow, magenta, cyan, and black). It is assembled in China.

(8) **Transfer and Second Transfer Unit**. The Transfer Unit transfers the toner image from the photoconductive drum onto the transfer belt and the Second Transfer Unit transfers the image from the transfer belt to paper. The units consist of several components: a transfer belt unit, a transfer belt cleaning unit, a second transfer unit, several types of sensors, and a motor. It is assembled in China.

(9) **Fuser Unit:** fuses the toner image to paper by applying heat and pressure. The paper is then transported to the bridge unit or the paper exit unit. The unit principally consists of several types of rollers, heating lamps, thermistors, thermostats, a heating coil, entrance guide, paper guider, separation plate and fingers, and a fuser belt. It is assembled in China.

(10) **Automatic Duplexing Unit** ("**ADU**"): reverses paper so that images can be automatically printed on both sides of the paper. It consists of various types of sensors, rollers, a PCB, switch and motor. It is assembled in China.

(11) **Paper Exit Unit**: transports paper from the fuser unit or the optional bridge unit to the exit tray or the finisher. It consists of various types of sensors, rollers, a switch, cooling fan and motor. It is assembled in China.

(12) **Hard-disk Drive** ("**HDD**"): allows the storage, encryption and protection of data. It is designed and developed in Japan and manufactured overseas. Application software is developed in Japan.

(13) **Firmware**: software that controls all the functions of an MFP. System firmware controls the SYS Board and engine firmware controls the LGC Board. The e-Bridge open software platform enables the installation of multiple devices, the performance of initial settings, and integration with core business applications to streamline workflows. All MFP firmware is developed in Japan.

(14) **Image Processing ("IMG") Board:** converts image data captured from the original document into printer image data for output to the printer or to be stored as a data file. The conversion process is controlled by the SYS Board and implemented by the LGC Board. The IMG Board itself is not programmed with any software. The board is only installed in the four MFPs that print in color – the "CG" models; image processing in the monochrome MFPs is done by the SYS Board and the LGC Board. It is manufactured in China.

TABS describes the SYS Board and the LGC Board (components 1 and 2 above) as the critical core components of an MFP because they organize and control the mechanical functions of an MFP, and an MFP could not operate without them. According to TABS' submission, the SYS Board is a system controller that unifies the MFP into a single system and can be considered the "brains" of the machine.

On the other hand, the LGC Board functions as the fine mechanical controller of the MFP, precisely regulating the mechanical and electrical actions of the MFP to effect printing, scanning and other functions. TABS analogizes the LGC Board to the human nervous system, in that it carries out the commands of the brain, i.e., the SYS Board.

Manufacture of the MFPs begins in China where all the subassemblies listed above, except for the LGC and SYS Boards and the HDD, are assembled. The subassemblies are connected to each other by a variety of wiring harnesses and attached to the metal frame of the MFP, which is then encased by a plastic cover. The unit is tested to ensure that it operates correctly. The tests involve the temporary installation of SYS and LGC Boards and a HDD, which are not shipped to Singapore with the MFPs. After testing is complete, the MFPs are shipped to Singapore for additional manufacturing, programming, and testing. The manufacturing processes in China account for approximately 60 percent of the total time it takes to manufacture an MFP.

In Singapore, the SYS and LGC Boards are manufactured by populating PCBs with hundreds of circuits and components, after which each board is inspected and tested for functionality using specialized equipment. According to TABS, the manufacture of the boards requires more advanced production technology than typical electric boards. The boards are permanently installed into the MFPs and programmed with system firmware (SYS Board) and engine firmware (LGC Board) developed in Japan. The third country-origin HDD is also permanently installed into the MFPs. The HDD installation process involves creating HDD partitions, installing Japanese-origin application software, and performing an aging test, and takes approximately two hours. The MFPs are then programmed with Japanese-origin Toshiba e-Bridge software, after which the MFPs' images are tested using specialized equipment and adjusted as necessary. TABS states that because the post-production testing in Singapore concerns the intricacies of image quality and output rather than the mechanical workings of MFP components, it is far more complicated and requires a higher degree of skill and technology that the testing performed in China. After successfully completing the image quality and adjustment testing in Singapore, the MFPs are packaged for shipment.

ISSUE:

What is the country of origin of the various models of TABS e-Studio Multi-Function Peripherals for purposes of U.S. Government procurement?

LAW AND ANALYSIS:

Pursuant to Subpart B of Part 177, 19 CFR § 177.21 et seq., which implements Title III of the Trade Agreements Act of 1979, as amended (19 U.S.C. § 2511 et seq.), CBP issues country of origin advisory rulings and final

determinations as to whether an article is or would be a product of a designated country or instrumentality for the purposes of granting waivers of certain "Buy American" restrictions in U.S. law or practice for products offered for sale to the U.S. Government.

Under the rule of origin set forth under 19 U.S.C. § 2518(4)(B):

> An article is a product of a country or instrumentality only if (i) it is wholly the growth, product, or manufacture of that country or instrumentality, or (ii) in the case of an article which consists in whole or in part of materials from another country or instrumentality, it has been substantially transformed into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was so transformed.

See also 19 C.F.R. § 177.22(a).

In order to determine whether a substantial transformation occurs when components of various origins are assembled into completed products, CBP considers the totality of the circumstances and makes such determinations on a case-by-case basis. The country of origin of the item's components, extent of the processing that occurs within a country, and whether such processing renders a product with a new name, character, and use are primary considerations in such cases. Additionally, factors such as the resources expended on product design and development, the extent and nature of post-assembly inspection and testing procedures, and worker skill required during the actual manufacturing process will be considered when determining whether a substantial transformation has occurred. No one factor is determinative.

In determining whether the combining of parts or materials constitutes a substantial transformation, the determinative issue is the extent of operations performed and whether the parts lose their identity and become an integral part of the new article. Belcrest Linens v. United States, 573 F. Supp. 1149 (Ct. Int'l Trade 1983), aff'd, 741 F.2d 1368 (Fed. Cir. 1984). Assembly operations that are minimal or simple, as opposed to complex or meaningful, will generally not result in a substantial transformation. In HQ H098417, dated June 15, 2010, dimmer and fan speed control switches were made from subcomponents made in Hong Kong and shipped to Mexico for assembly. The processing in Mexico included the assembly of a bare printed circuit board into a final PCB and the assembly of the PCB with other components into the finished product. CBP found that the assembly in Mexico was sufficiently complex and the components were substantially transformed into a final product that had a new name, character and use, such that the country of origin was Mexico. Likewise, in HQ H155115, dated May 24, 2011, CBP found that assembly in the United States of an imported glider and imported and U.S.-origin parts substantially transformed the components into an article with a new name, character, and use. The assembly

process in the U.S. was complex and time-consuming and involved a significant U.S. contribution in both parts and labor. Consequently, the country of origin for procurement purposes was the United States.

In Texas Instruments v. United States, 681 F.2d 778, 782 (CCPA 1982), the court observed that the substantial transformation issue is a "mixed question of technology and customs law."

In Data General v. United States, 4 Ct. Int'l Trade 182 (1982), the court determined that for purposes of determining eligibility under item 807.00, Tariff Schedules of the United States (predecessor to subheading 9802.00.80, Harmonized Tariff Schedule of the United States), the programming of a foreign PROM (Programmable Read-Only Memory chip) in the United States substantially transformed the PROM into a U.S. article. In programming the imported PROMs, the U.S. engineers systematically caused various distinct electronic interconnections to be formed within each integrated circuit. The court noted that the programs were designed by a U.S. project engineer with many years of experience in "designing and building hardware."

TABS believes that the country of origin for TAA purposes is Singapore because the components and elements that are most important to the MFPs – the SYS Board (the "brain" of the MFP), the LGC Board (the "nervous system" implementing the commands of the brain), the HDD, and Toshiba proprietary software – are incorporated into the machines in Singapore. In addition, the SYS Board and the LGC Board are manufactured in Singapore. In support of its position, TABS cites HQ H018467 (Jan. 4, 2008).

In HQ H018467, CBP was asked to consider two manufacturing scenarios for multi-function printers. In one scenario, manufacturing took place in two countries; in the other, it took place in three countries. In the two-country scenario, 18 units were manufactured in the Philippines from components produced in various countries: automatic document feeder unit; scanner unit; operation panel unit; feed unit; manual paper feed unit; lift up motor unit; subassembly units; automatic document transferring unit; induction heating fuser unit; induction heating power supply unit; transcription unit; developing unit; laser scanning unit; main drive unit; motor drive board; high voltage power supply board; low voltage power supply board; and automatic duplex unit board. The units were sent to Japan where the system control board, engine control board, OPC drum unit, and the toner reservoir were manufactured and incorporated into the units. The control boards were programmed in Japan with Japanese firmware that controlled the user interface, imaging, memories, and the mechanics of the machines. The machines were then inspected and adjusted as necessary. CBP found that the manufacturing operations in Japan substantially transformed the Philippine units such that Japan was the country of origin of the multifunctional machines. In making our determination we took into consideration the fact that the system control board, the engine control board,

and the firmware, which were very important to the functionality of the machines, were manufactured in Japan. We also found that the operations performed in Japan were meaningful and complex and resulted in an article of commerce with a new name, character and use.

In this case, substantial manufacturing operations are performed in both China and Singapore. Chinese subassemblies are imported into Singapore where they are fitted with Singaporean-origin SYS Boards and LGC Boards and programmed with Japanese-origin system and engine firmware. The firmware controls the functions and mechanics of the MFPs. The HDD, which is manufactured in a third country, is also installed into the MFPs in Singapore and programmed with Japanese-origin application software. The boards assembled in Singapore are important to the function of the MFPs, as is the Japanese software. But the assembly in Singapore completes the MFPs. Therefore, we find that the last substantial transformation occurs in Singapore. See HQ 563012, dated May 4, 2004 (CBP found that Hong Kong was the country of origin of fabric switches assembled to completion in Hong Kong, where they were also configured and programmed with U.S.-origin software that transformed the switches from non-functional devices into fabric switches capable of performing various Storage Area Network related functions); HQ H170315, scenario III, dated July 28, 2011 (application and transceiver boards for satellite phones were assembled in Malaysia and programmed with U.K.-origin software in Singapore, where the phones were also assembled. CBP found that no one country's operations dominated the manufacturing operations of the phones and that the last substantial transformation occurred in Singapore.) Therefore, the country of origin of the e-Studio MFPs is Singapore.

HOLDING:

Based on the facts provided, the country where the last substantial transformation takes place is Singapore. As such, the Toshiba e-Studio MFPs described in this ruling are to be considered products of Singapore for purposes of U.S. Government procurement.

Notice of this final determination will be given in the Federal Register, as required by 19 C.F.R. § 177.29. Any party-at-interest other than the party which requested this final determination may request, pursuant to 19 C.F.R. § 177.31, that CBP reexamine the matter anew and issue a new final determination. Pursuant to 19 C.F.R. § 177.30, any party-at-interest may, within 30 days of publication of the Federal Register Notice referenced above, seek judicial review of this final determination before the Court of International Trade.

Sincerely,

Sandra L. Bell, Executive Director
Regulations and Rulings
Office of International Trade

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