CUSTOMS AUTHORITY FOR ADVANCE RULINGS
New Customs House, Ballard Estate, Mumbai – 400 001

The 9th of July, 2021
Ruling No. CAAR/Mum/ARC/18/2021
In
Application No. CAAR/CUS/APPL/1/2021-O/o Commr-CAAR-MUMBAI

Name and address of the applicant	:	M/s Ingram Micro India Pvt Ltd , 5th Floor A Wing, Empire Plaza, LBS Marg, Gandhi Nagar, Vikhroli West, Mumbai – 400 083
Commissioner concerned	:	The Commissioner of Customs(III), Import Air Cargo Complex, Sahar, Andheri (East), Mumbai – 400 099
Present for the application	:	Ms. Srinidhi Ganesh (Advocate); Shri Blasé Martin D'souza, Director Shri Chandrashekhar Mohiniraj Thakur, DGM
Present for the Department	:	--

Ruling

M/s. Ingram Micro India Private Limited has filed an application for advance ruling seeking the classification of two models of head mounted devices from overseas supplier M/s. RealWear. These devices, namely, HMT-I and HMT- 1Z1 are stated to be open architecture Android based computers meant to be mounted onto the head. These devices are fully hands-free rugged Android based computers with voice-based operating system, powerful software applications and processor. They also are fitted with a microphone, speaker, camera and micro display. They receive inputs from the user through simple voice commands and are capable of performing various functions such as, creation of custom workflows, assignments, linking and transfer of such workflows, syncing with work order systems; generation of reports and offloading of content automatically or manually, wired or wirelessly, and storing contents for compliance records, analysis and process improvement; capturing photos, recording videos, sharing screen with mentors while at work, zooming for better clarity on details and also annotation/telestration of images; store photos, videos and documents locally on the device or remotely; sharing documents, notes and typed messages with workers and mentors; initiate calls through various applications; create custom dashboard with desktop or web tools, access contextual data, visualize conditions with diagrams, chart and data, and access of data by the operators in real time. These devices weigh between 380 to 430 grams and consist of a virtual (micro) display which appears as a 7" screen to the user, a 2.0 GHz 8-core Qualcomm® Snapdragon 625 with Adreno 506 processor, four digital microphones and advanced algorithms, voice based operating system, integrated speaker and 3.5 mm audio jack, 16 MP 4-axis optical image stabilization, PDAF with

LED flashlight for capturing pictures and recording videos, 16GB storage space and 2GB RAM with slot for micro SD card (supporting up to 256 GB), Bluetooth, Wi-Fi and GPS enabled.

2. The applicant has emphasised that these products work on open-source Android operating system with a hands-free interface. The input to the devices is through voice commands. They are not fitted with physical keyboards or touch screen keyboards but contain speech keyboard vide which text may be entered into a text field. These products are capable of supporting third party applications. They are digital workflow solutions enabling workers to reference visual instructions, complete checklists, enter data and capture images thereby improving productivity and reducing operational errors. This helps workers avoid reliance on papers/books/memory. The digital workflow solutions aim to provide voice-driven data entry to complete action and easily capture photos and videos to log steps as tasks are completed, replacing manual writing or entering of data, reducing errors and increasing quality, easily access photos and videos for training & reference, eliminate the need for workers to memorise the work steps, offer real time expert assistance on field, provide the workers on the field immediate and real time guidance from experienced technicians/superiors and remote monitoring/supervision by the mentors. These devices eliminate the need of experts to physically visit job sites, thereby minimising delays and higher costs. RealWear devices are IoT (internet of things) capable. Through wide network and internal storage capability, all details/ contextual data required for carrying out the operations can be provided in real time to help operators in the field perform the functions in an efficient manner while operating, inspecting or maintaining an equipment. Some examples of usage of HMT devices cited by the applicant are: -

(i) workers have their hands free to navigate difficult terrain/pathways and all necessary observation/notes etc. can be taken directly through voice, and need for books, pens etc. are eliminated;

(ii) in the healthcare industry, an asynchronous, or 'store and forward' recording capability, new surgical techniques and procedures etc. can be disseminated quickly to assist healthcare providers. Real time streaming can also assist care providers during patient rounds with off-site specialists, aiding in more accurate and timely care to the patient;

(iii) in equipment maintenance, the team can have real-time access to current work orders, maintenance history of the equipment, associated engineering documentation, manufacturers' schematics, permits, safety documentation and best practices;

(iv) ensure data integrity, smoother operations and dramatically reduced administration costs with low initial overhead;

(v) enabling newly hired field engineers/technicians to retrieve technical work instructions before they start an assignment. Onsite workers can interact with the data, drill down into structures and discover information that is contextualised to show visualizations of relevant parts and components;

(vi) in the automobile industry, geographically dispersed field technicians need support from Product Quality Engineers (PQEs) to stay updated with the latest maintenance and repair procedures and the HMT devices connect hands free with PQEs, capture images and videos, playback training videos, refer to manuals etc.;

(vii) helps workers to work efficiently on a manufacturing factory floor or gas infrastructure brimming with inherently dangerous machinery and navigate their way safely around them by providing them access to equipment manuals, multimedia files, complete documents and collaborate with experts in real time with video calls.

3. The applicant has indicated their desire to import these devices through the Air Cargo Complex, Mumbai. Therefore, the present application was forwarded to the Commissioner of Customs (Import), ACC, Mumbai Custom Zone - III for comments. It is the considered opinion of the ld. Commissioner that the correct classification of these devices is 85176290, and not 84.71 as opined by the applicant. In coming to the aforesaid conclusion reliance has been placed on the relevant chapter notes and the language of the headings. The comments of the ld. Commissioner were communicated to the applicant. The applicant has submitted their rejoinder to the comments of the jurisdictional commissionerate arguing therein that RealWear hands-free Android tablet class wearable computers (head mounted tablet) cannot be classified under the heading 85.17 merely because they have the capability of transmitting/receiving data to/from other devices. In other words, mere existence of features such as Wi-Fi or Bluetooth connectivity or capacity of video calling using the attached camera for effective use of the HMT devices cannot make the devices themselves apparatus for transmitting/reception of data. If this reasoning is applied, then all devices consisting of such features would qualify to be transmission apparatus even though they are meant for another purpose or function. The applicant has stated that examples of goods covered under the heading 85.17 as enumerated in the HSN explanatory notes are network interface cards, routers, bridges, hubs etc., which are meant solely for the purpose of enabling communication and allowing transmission and reception of voice, images and data between two devices. The RealWear devices are not goods, which merely have features to enable communication/transmission of data. They are highly capable Automatic Data Processing (ADP) machines, with communication capabilities as a merely incidental feature. The applicant has argued that if a LAN interface card is in-built in a computer (nowadays the computers have in-built LAN cards), the computer would still be classified under heading 84.71 and not under heading 85.17 as communication device, and that addition of communication features to an ADP machine will not affect its classification and the ADP machine would continue to be classified under Heading 84.71. It is also advanced by the applicant that these devices are not solely meant to enable communication or for transmission or reception of data such as the products covered under the heading 85.17 and that the purpose of these devices is to enable a worker in the field hand free access to an ADP machine, and aid him in the numerous processing functions his work demands, i.e., generation of reports, storage, programming and managing workflows. The specifications, i.e., powerful processor and operating system for processing the data and programs and sufficient storage space for storing of programs and data also prove that these devices have all the features and functions of a tablet computer. The applicant, therefore, contends from the above submissions that the principal function of the RealWear hands-free Android based HMTs is to process data, store and execute programmes similar to a laptop or a tablet computer. The communication/transmission feature are merely incidental to the data processing features. Just like laptops and computers have video calling and Wi-Fi capabilities. Hence, the RealWear hands-free Android tablet class wearable computers (Head Mounted Tablet) are automatic data processing machines classifiable under the Heading 84.71 and specifically under tariff Item 84713010. To the analogy of the Commissioner of Customs of the subject goods to smart watches (wearable advanced telecommunication device) classifiable under the Heading 85176290, it is contended that smart watches and RealWear head mounted tablets are completely different devices and are not comparable merely because both are wearable devices. The "wearable" feature of a device does not qualify it to be classifiable under the Heading 85.17. Further, the smart watches are either e-sim enabled (i.e., they are connected to the cellular network) or they are paired and dedicated to a smartphone for communication. Smart watches function as telecommunication devices when paired with a mobile phone by notifying the users of messages and calls received in the mobile phone and enables them to deal with the same without having to use the mobile phone itself. The communication capabilities of a smartwatch are essential for it to perform all its functions in the best possible manner. For instance, while the number

of steps walked could be recorded onto the device, these recordings would vanish if the device was not connected to phone or laptop within specified period. On the contrary, RealWear devices are neither similar to a smart watch as they are not used as a substitute for a mobile phone nor for notification of the calls or messages received in mobile phones. Instead, these devices are meant for performing independent functions of data processing. They are meant to be used as substitutes for ADP machines. They do not act as an apparatus for notifying the users regarding the mails/messages etc. received in another paired device. Unlike a smartwatch which is a device for communication and notification, HMT devices are devices for processing and performing all functions which an ADP machine can.

4.   The matter was heard on 10.06.2021. Ms. Srinidhi Ganeshan, appearing on behalf of the applicant, along with others, took me through their application, explained the product features and specifications, and compared them to the WCO's 50th HS Committee meeting specifications for tablet computing devices. Reliance was also placed on the Board Circular No. 20/2013-Cus., dated 14.05.2013 to reinforce their line of reasoning. On a specific query regarding A-GPS capability of the subject devices, Sri Blasé D'Souza of Ingram explained that though the devices do not have a sim card slot, A-GPS capability can be achieved through an external attachment.

5.   I have carefully considered all the relevant records and have accorded due consideration to all submissions, whether written or oral. From the submissions of the applicant, and the information available on the webpage of M/s. RealWear, it appears that the subject goods, namely head mounted tablets, have the following features, i.e., a high-resolution micro display comparable to the display of a 7-inch tablet device, a 2.0 GHz 8-core Qualcomm Snapdragon CPU, a 2 GB RAM, Bluetooth/GPS/GLONASS/A-GPS connectivity, Wi-Fi connectivity, 16 GB internal storage (expandable up to 254 GB with SD cards), 16 MP camera, among others. These devices weigh 380 to 430 grams and runs on 3250 mAh Li-ion rechargeable batteries having a battery life of 9 to 10 hours. These devices can process data, execute programmes, and connect to internet via a wireless network, send/receive e-mails, upload/download files, download software applications, conduct video/VoIP (Voice over Internet Protocol) communication, among others. The input method for the device is voice commands, instead of a traditional keyboard. The device converts voice commands into text to execute desired functions.

6.   The HS Committee of the WCO, in its 50th meeting, recommended classification of tablet computers, designed to be primarily operated by using a touchscreen, and featuring Wi-Fi network, mobile network and Bluetooth connectivity, and having the dimensions of 190 x 120 x 12 mm, and weighing 0.4 kg. under heading 8471.30. This decision is based on GIRs 1(Note 3 to Section XVI and Note 5 (A) to Chapter 84) and 6.

7.   The Board, vide Circular No. 20/2013-Cus., dated 14.05.2013, w.r.t. classification of tablet computing devices, applying the General Rules for the Interpretation of the First Schedule to the Customs Tariff Act (CTA), 1975 (GIR 1, "in classifying articles, for legal purpose it shall be determined according to the terms of the headings and any relative Section or Chapter Notes..."), and placing reliance on the Note 5(A) to Chapter 84 ("For the purposes of heading 8471, the expression "automatic data processing machine" means machine capable of, (i) storing the processing programme or programmes and at least the data immediately necessary for the execution of the programme; (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 programme which requires them to modify their execution, by logical decision during the processing run") and the Note 3 to Section XVI ("unless the context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole and other machines

designed for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine which performs the principal function"), and also taking into consideration, the design of tablet computers to operate by using its touchscreen, process data, execute programs, and connect to the internet via a wireless network in order to exchange and manage e-mails, exchange or download files, download software applications, conduct video or VoIP (Voice over Internet Protocol) communications, connect to cellular networks to make voice calls, programmable in a variety of ways thereby qualifying as machines capable of being freely programmed in accordance with the requirements of the user, as required by Note 5 (A) (ii) to Chapter 84, opined that machines commercially referred to as "Tablet Computers" are more appropriately classifiable in heading 8471, and more specifically under sub-heading 847130. In coming to the above conclusion, the Board considered such products to have essentially the same functionality as a laptop and the function of an Automatic Data Processing (ADP) Machine to be the main function of the product, while other functionalities of said machines are not different from the auxiliary functions that could be seen on any computer, such as desktop or laptop computers, and also that the mobile phone calling function is only a supplementary function because it could not be activated without running an operating system of the "Tablet Computer", and in order to use the function a headset had to be used.

8.   Placing reliance on the relevant Chapter Notes, the WCO's classification advice, the Board circular on classification of tablet computers, and also considering the fact that the head mounted tablet devices of RealWear incorporate all the features of a tablet computer, except a touchscreen, the applicant has argued that these devices are more akin to automatic data processing machines than apparatus for transmission or reception of voices, image, data, including apparatus for communication in a wired or wireless network. It is also emphasised by the applicant that these Android based devices are capable of allowing installation of third-party software products, examples of which, cited by the applicant, are Microsoft Teams, Cisco Expert on Demand etc. These third-party applications are stated to be capable of being stored in the device for use when needed. These open architecture devices, it is advanced, can be updated and revised by the user and it is also stated that the user can modify the configuration, such as writing standard Android applications that run across various applications. In order to merit classification under heading 84.71, it is clear, that these devices need to satisfy the requirements of the Note 5(A) to Chapter 84, which has been relied upon both by the WCO's HS Committee as well as the Board. For the sake of clarity, the said Chapter Note is reproduced below: -

'For the purposes of heading 8471, the expression "automatic data processing machines" means machine capable of:

(i) storing the processing programme or programmes and at least the data immediately necessary for the execution of the programme;

(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 programme which requires them to modify their execution, by logical decision during the processing run.

Therefore, there is a need to examine whether the features and specifications of the devices under consideration meet the criteria as laid down in the relevant Chapter Note reproduced above. For any device to be held as an ADP and classifiable under sub-heading 84713010, four essential conditions are required to be satisfied: -

- The device must be capable of storing the processing programme or programmes and at least the data immediately necessary for execution of programs - this feature is there in the HMT device;
- The device must be capable of being freely programmed in accordance with the requirements of the use, meaning thereby, programmable in a variety of ways in accordance with the requirements of the user - this feature is not entirely present in the HMT devices as they appear to have a single core function, i.e., remote collaboration which is fixed.
- The device must be capable of performing arithmetical computations specified by the user - the HMT device receives voice commands to how to operate. It cannot perform arithmetical computations on its own, for instance, if a command is given to compute and inform that 1+1=2, it will show a picture where the 1+1=2 is written or connect user to remote mentor to get the answer.
- The device must be capable of executing, 'without human intervention', a processing programme which requires them to modify their execution, by logical decision during the processing run - this condition doesn't appear to be fully satisfied in the HMT device as each execution of the device is based on command, i.e., human intervention, at every stage. Even simple tasks like, to scan a QR code, present a data sheet etc., human voice command is mandatory. Processing of data obtained through pictures, videos etc. is achieved by human element on the user side or remote mentor side.

The Board Circular No. 20/2013-Cus. refers to "Tablet Computers" that can be programmed in a variety of ways. HMT device doesn't appear to be amenable to be programmed in various ways. It also held that the tablet computers are those devices which have essentially the same functionality as laptop. The HMT device does not have the same functionality as a laptop, it is essentially a remote collaboration tool as indicated in the website of M/s. RealWear. The product catalogues also describe product as remote collaboration tool, clearly indicating thereby that communication over distance between two personnel as a key distinguishing feature of the device. Therefore, to be called a tablet computer, the function as an automatic data processing machine must be the main function. In case of HMT devices, the main function is providing hands-free connected worker solutions for remote collaboration. Hence, it appears that the HMT devices are not akin to tablet computing devices.

9.   Note 3 to section XVI states that, 'Unless the context otherwise requires, composite machines consisting of two or more machines fitted together to form a whole and other machine designed for the purpose of performing two or more complementary or alternative functions are to be classified as if consisting only of that component or as being that machine, which performs the principal function. In the present instance, despite the data storage and processing capabilities of these devices, the principal function is that of communication. Note 5(D) to Chapter 84 lays down that, "*Heading 8471 does not cover the following when presented separately, even if they meet all of the conditions set forth in paragraph (C):*

(i) .....;

(ii) apparatus for the transmission or reception of voice, images or other data, including apparatus for communication in a wired or wireless network (such as a local or wide area network)";

In view of the aforesaid discussions and the Chapter Note 5(D)(ii) to Chapter 84 above, it appears that the head mounted devices under consideration in the present proceedings do not merit classification under heading 84.71 as automatic data processing machines.

10.   The applicant, on their part, have mentioned all possible classification entries apart from 84.71. They include 851762 (Machines for the reception, conversion and transmission or regeneration of voice, images or other data, including switching and routing apparatus), 851830 (Headphones and earphones, whether or not combined with a microphone, and sets consisting of a microphone and one or more loudspeakers), 852550 (Transmission apparatus), as well as the residuary heading 8543 (Electrical machines and apparatus having individual functions, not specified or included elsewhere in this chapter). Amongst all of the above, the sub-heading 85176290, covers apparatus for the transmission or reception of speech or other sounds, images or other data between two points by variation of an electric current or optical wave flowing in a wired network or by electromagnetic waves in a wireless network. The HMT device is a hands-free remote collaboration tool. It acts as a virtual assist and can capture videos and photos and share the same with workers at another location for any assistance. One can view documents/workflows. The product catalogues also lay emphasis on the device aiding mentor/expert connection with workers on field from remote location. Hence, it appears that HMT devices are a type of apparatus for the transmission or reception of speech, images and other data between two points. Based on the above discussion, it is my considered opinion that HMT devices are rightly classifiable under sub-heading 85176290.

In view of the aforesaid, I rule that head mounted tablets of M/s. RealWear, namely HMT-1 and HMT-1Z1 merit classification under heading 85.17, and more specifically under sub-heading 85176290 of the first schedule to the Customs Tariff Act, 1975. The rate of customs duty for these devices, as per the tariff in force, is 10% advalorem. IGST is payable on imports @ 18%. The imports would also attract Social Welfare Surcharge @ 1%. I have considered the benefit of exemption available to goods of sub-heading 85176290 by virtue of Sr. No. 20 of the table annexed to the Notification No. 57/2017-Cus., dated 30.06.2017, as amended.

(M.R. MOHANTY)
Customs Authority for Advance Rulings,
Mumbai

F.No. CAAR/CUS/APPL/1/2021-O/o Commr-CAAR-MUMBAI   Dated: 09.07.2021

This copy is certified to be a true copy of the ruling and is sent to: -

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7. Guard file.

(Ashok Kumar)
Secretary,
Customs Authority for Advance Rulings, Mumbai