



सीमाशुल्क अग्रिम विनिर्णय प्राधिकरण
Customs Authority for Advance Rulings
नवीन सीमाशुल्क भवन, बेलाई इस्टेट, मुंबई - ४०० ००१
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F.No. CAAR/CUS/APPL/107, 108 & 109/2025 - O/o Commr-CAAR-Mumbai

दिनांक/Date: 25.09.2025

Ruling No. & date	CAAR/Mum/ARC/82,83 & 84/2025-26 dated 25.09.2025
Issued by	Shri Prabhat K. Rameshwaram, Customs Authority for Advance Rulings, Mumbai
Name and address of the applicant	M/s. Valeo India Private Limited CEE DEEYES IT Park, Block No. 1, No. 63, Rajiv Gandhi Salai, Navalur, Chennai - 600 130. {Email: dinesh-raja.r@valeo.com }
Concerned Commissionerate	1. The Pr. Commissioner of Customs, NS-V, JNCH, Nhava Sheva, Tal: Uran Distt: Raigad Maharashtra-400707. (Email: commr-ns5@gov.in) 2. The Pr. Commissioner of Customs(I), Air Cargo Complex, Sahar, Andheri (E), Mumbai – 400099. (Email: import.acc@gov.in) 3. The Pr. Commissioner of Customs, Port User Building, Mundra Port, Mundra, Kutch Gujarat -370421. (Email- commr-cusmundra@nic.in)

ध्यान दीजिए/ N.B.:

- सीमा शुल्क अधिनियम, 1962 की धारा 28I की उप-धारा (2) के तहत किए गए इस आदेश की एक प्रति संबंधित को निःशुल्क प्रदान की जाती है।
A copy of this order made under sub-section (2) of Section 28-I of the Customs Act, 1962 is granted to the concerned free of charge.
- इस अग्रिम विनिर्णय आदेश के खिलाफ कोई भी अपील ऐसे निर्णय या आदेश के संचार की तारीख से 60 दिनों के भीतर संबंधित क्षेत्राधिकार के उच्च न्यायालय के समक्ष की जाएगी।
Any appeal against this Advance Ruling order shall lie before the **High Court of concerned jurisdiction**, within 60 days from the date of the communication of such ruling or order.
- धारा 28-I के तहत प्राधिकरण द्वारा सुनाया गया अग्रिम विनिर्णय तीन साल तक या कानून या तथ्यों में बदलाव होने तक, जिसके आधार पर अग्रिम विनिर्णय सुनाया गया है, वैध रहेगा, जो भी पहले हो।
The advance ruling pronounced by the Authority under Section 28 - I shall remain valid for three years or till there is a change in law or facts on the basis of which the advance ruling has been pronounced, whichever is earlier.



4. जहां प्राधिकरण को पता चलता है कि आवेदक द्वारा अग्रिम विनिर्णय धोखाधड़ी या तथ्यों की गलत बयानी द्वारा प्राप्त किया गया था, उसे शुरू से ही अमान्य घोषित कर दिया जाएगा।

Where the Authority finds that the advance ruling was obtained by the applicant by fraud or misrepresentation of facts, the same shall be declared void *ab initio*.

अग्रिम विनिर्णय / Advance Ruling

M/s. Valeo India Private Limited (IEC No.: 0508058899) (hereinafter referred to as 'the Applicant') filed an application (CAAR-1) for advance ruling in the Office of Secretary, Customs Authority for Advance Ruling (CAAR) Mumbai. The said application was received in the secretariat of the CAAR, Mumbai on 28.05.2025 along with its enclosures in terms of Section 28H(1) of the Customs Act, 1962(hereinafter referred to as the 'Act also'). The Applicant is seeking advance ruling on the issue of classification of the parts of the Ultrasonic Parking Sensor under the respective CTI as mentioned in below table.

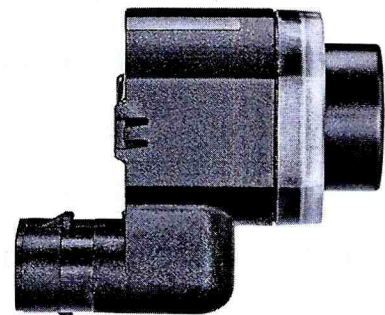
Table-1

Sr.No.	Product Description	Proposed CTI
1.	PSA de-coupling ring Black Color Decoupling Ring HKM Lin U	40169390
2.	Front cover for sensor	85419000
3.	Powder coated aluminium membrane	85419000
4.	Piezo disc (G5.3 DISC)	85416000
5.	Plug 5 GEN.	40169390
6.	Gen 5.3 Contact (terminal pin)	85419000
7.	PCBA CD Lin (Printed Circuit Board Assembly)	85419000
8.	Shield cover for sensor (EMC protection)	85419000
9.	HKMC 6PIN HV LIN Sensor housing	85419000
10.	Wevopur 306 M/30 (Resin)	39095000
11.	Wevonut 9015 (Hardener)	39093100

2. Submission by the Applicant:

2.1 M/s. Valeo India Private Limited ("the Applicant"), a Private Limited company is a leader in passenger car segment, engaged in the manufacture of automobile components. The applicant is a preferred supplier to automotive majors in the country.

2.2 The applicant is importing multiple parts of Ultrasonic Parking Sensor (hereinafter referred to as the "Parking Sensor"/ "the subject good") through Sea. The parts in question are parts of Ultrasonic parking sensors used in automotive rear parking alert / assist system. A picture of the finished goods are attached hereunder:



2.3 The Table-1 below shows the list of parts of the Ultrasonic Parking Sensor for which the Applicant seeks a Ruling on classification. A list of these parts with their pictures is also attached as Annexure I to the Application.

Table -2

Sl. No	Description
1.	PSA de-coupling ring Black Color or Decoupling Ring HKM Lin U (Decoupling Ring)
2.	Front cover for sensor
3.	Powder coated Aluminium membrane
4.	Piezo disc (G5.3 DISC)
5.	Plug 5 GEN (Plug)
6.	Gen 5.3 Contact (terminal pin)
7.	PCBA CD Lin (Printed Circuit Board Assembly)
8.	Shield cover for sensor (EMC protection)
9.	HKMC 6PIN HV LIN Sensor housing
10.	Wevopur (Resin)
11.	Wevonut (Hardner)

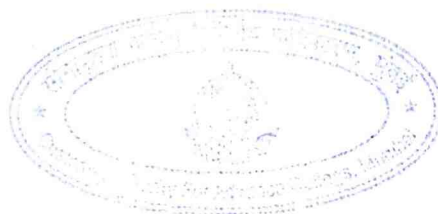
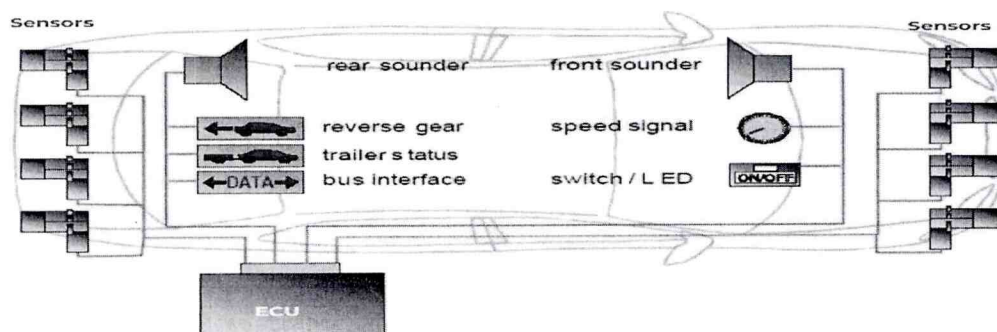
2.4 These parts are used in the manufacture of Ultrasonic Parking Sensor. The Ultrasonic Parking sensor is used in automotive rear parking alert system, which are classified under CTH 8512 2090 of the Customs Tariff Schedule.

2.5 The Applicant submits that each component is independently sourced and imported as per operational demand, rather than as a pre-packaged unit or kit. The imports are procured from different suppliers under separate Purchase orders (POs) and are received through multiple shipments in varying order quantities, based on production requirements with a view to building an inventory of parts.

Applications of the Reverse Parking Alert/ Assist:

2.6 The three principal components in rear parking alert/ assist systems are-

- ultrasonic sensors
- controllers and
- displays or buzzers/ alarms.



Ultrasonic sensors

2.7 An ultrasonic sensor is an instrument that measures **the distance to an object using ultrasonic sound waves**. It uses a transducer to send and receive ultrasonic pulses that relay back information about an object's proximity. High-frequency sound waves reflect across boundaries to produce distinct echo patterns.

2.8 Ultrasonic sensors **measures the radial distances to obstacles within the detection field** and number of these sensors varies from 2 to 12 based upon car model. A piezo device generates electricity from mechanical force according to the force between electrodes. In contrast, if voltage is applied between the electrodes, the device will undergo a mechanical change depending on the amount of voltage applied. The amount of electricity generated is used to detect whether an object is present and to measure the distance to the object.

Controller

2.9 The controller processes the signal to calculate the distance and orientation between the vehicle body and the obstacle. The controller transmits a sine wave pulse to the sensor, processes the received signal, and obtains the corresponding distance value, and then communicates with the display. The main function of the controller is filtering and calculation. The controllers of different brands of parking sensor systems may be different, but the principles are basically the same.

2.10 In automobiles, the controller is generally installed around the dashboard, while the ultrasonic sensor is installed on the front and rear bumpers, and transmits signals through long wires.

Display or buzzer

2.11 When the sensor detects that the distance between the car and the obstacle reaches a dangerous distance, the system will send an alarm through the display and buzzer to remind the driver. The display provides corresponding distance alarm sound according to the distance.

Working of the Ultrasonic Parking Sensor in question:

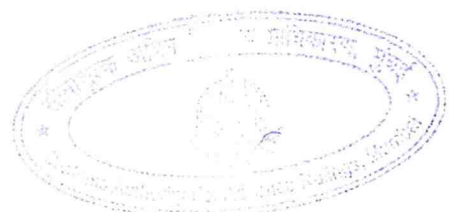
2.12 An ultrasonic Parking Sensor is essentially a transducer as could be seen from the Technical Literature attached as Annexure II to the Application. From the relevant portions extracted below, it is apparent that the Ultrasonic Parking Sensor is essentially a Transducer.

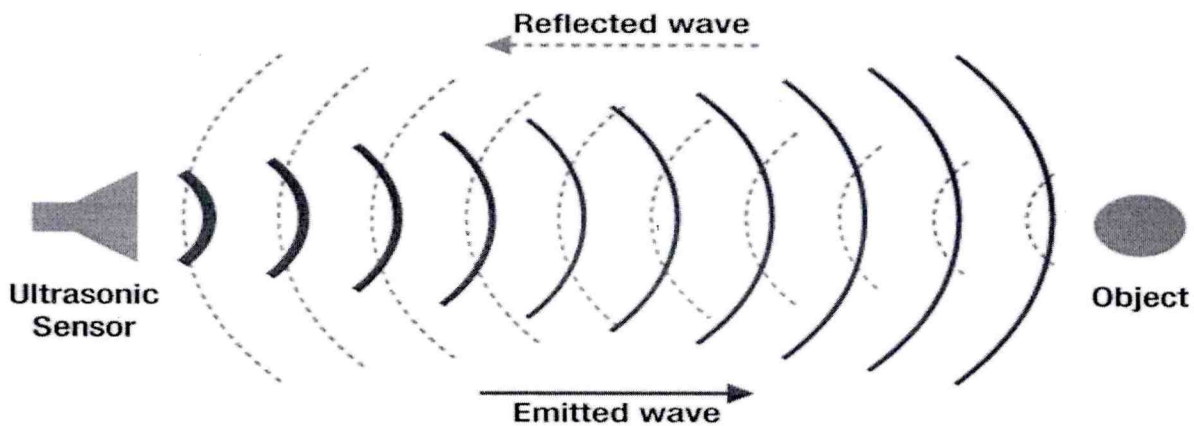
"1. What is Ultrasonic Time-of-Flight Sensing?"

This section discusses the physics of sound waves and the benefits of using ultrasonic sensors in a variety of applications.

1.1 Principles of Ultrasound

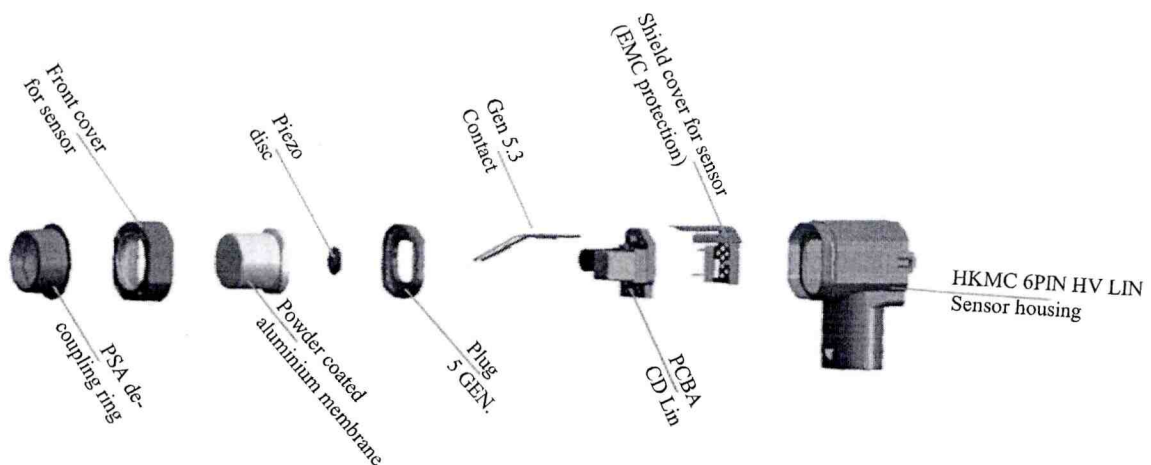
Ultrasonic sensors can measure distance and detect the presence of an object without making physical contact. They do so by producing and monitoring an ultrasonic echo. Depending on the sensor and object properties, the effective range in air is between a few centimeters up to several meters. The ultrasonic sensor (or transducer) generates and emits ultrasonic pulses that are reflected back towards the sensor by an object that is within the field of view of the sensor.





The ultrasonic sensor is a piezoelectric transducer, which is able to convert an electrical signal into mechanical vibrations, and mechanical vibrations into an electrical signal. Therefore, in a monostatic approach, the ultrasonic sensor is a transceiver which operates as both a speaker and microphone at a single frequency."

Source: Application Note **Ultrasonic Sensing Basics** Mubina Toa, Akeem Whitehead Texas Instruments



2.13 It could be seen that an ultrasonic sensor is essentially a semiconductor (piezoelectric) -based transducer that converts a physical phenomenon into a corresponding electrical signal and vice-versa.

3. Applicants interpretation of Law/Facts:

APPLICANT'S ELIGIBILITY TO SEEK ADVANCE RULING

3.1 The Applicant is eligible to seek an advance ruling under the Customs Act, 1962. As per Section 28E(c) of the Act, an "applicant" is defined as a person holding a valid Importer-Exporter Code (IEC) under the Foreign Trade (Development and Regulation) Act, 1992. The Applicant holds a valid IEC (No.



0508058899), satisfying this requirement. The present application seeks an advance ruling on the classification of "Parts of Ultrasonic Parking Sensor" under Section 28H of the Customs Act, which allows rulings on the classification of goods, applicability of duty notifications, and determination of the origin of goods. The application pertains to goods before their importation, fulfilling the condition under Section 28E(b).

3.2 The bar under Section 28-I of the Customs Act does not apply in this case. Section 28-I prohibits applications only if the issue is already pending or decided by any customs authority or court. The Applicant confirms that no similar case is pending in any forum. The Applicant submits that each import constitutes a separate taxable event, as held in *Jain Exports Pvt. Ltd. v. Union of India*, 1987 (29) E.L.T. 753 (Del.), and reaffirmed by the Supreme Court in 1992 (61) E.L.T. 173. This supports the position that an advance ruling can be sought for each import as a separate event. The Applicant also relies on *Samsung Noida Display Pvt. Ltd. Vs The Commissioner of Customs* [2024 (390) E.L.T. 73 (A.A.R. Cus. Del.)], where it was held that advance rulings remain maintainable even for previously imported goods, provided the ruling pertains to future transactions and is not under dispute. Similarly, in *Amazon Seller Services Pvt. Ltd.*, (2023) 5 Centax 186 (A.A.R. Cus. Mum.), it was held that advance rulings can be sought for ongoing activities if no litigation or dispute is pending on the same issue.

3.3 The Applicant meets all the necessary conditions for seeking an advance ruling: holding a valid IEC, filing the application before importation, raising a valid question under Section 28H(2)(a), and ensuring no bar under Section 28-I applies. Therefore, the present application is legally maintainable and should be allowed to proceed.

Legal position on classification of the Reverse Parking System and the Ultrasonic Parking Sensor

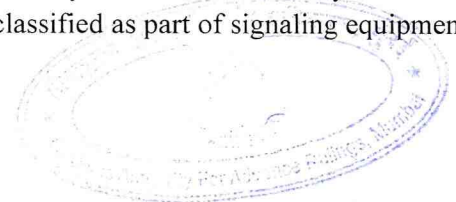
3.4 With respect to the three components of the Rear Park alert/ assist system, i.e., ultrasonic sensors, controllers and displays or buzzers/ alarms, classification of such combined equipment or machines are governed by Note 4 to Section XVI extracted below:

"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."

3.5 All three components of an Rear Park alert/ assist system, presented together can be classified under CTH 8512 2090, by application of Note 4 to Section XVI that deals with the classification of machines 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.

3.6 As the rear parking alert/ assist system comprises of an ultrasonic sensor, a controller and display or a buzzer, interconnected by wires and designed to contribute together to a clearly defined function covered under CTH 8512, the classification under CTH 85122090 can be justified for the entire system. Though the Ultrasonic parking sensor is an identifiable part of the rear parking alert/ assist system, its classification will be governed by Note 2 to Section XVI.

3.7 The Ultrasonic Parking Sensor on its own, however, is typically just the sensor module. The sensors are used for distance measurement, not for signaling. The fact that the system as a whole may include a beeper and control unit does not mean that the sensor part should be classified as part of signaling equipment



under 8512.

Classification of Ultrasonic Sensor under CTH 85419000

3.8 Chapter 85 of the First Schedule to the Customs Tariff Act, 1975 covers goods described as “Electrical machinery and equipment and parts thereof; sound recorders and reproducers, parts and accessories of such articles”. Chapter 85 falls under Section XVI, titled “Optical, Photographic, Cinematographic, Measuring, Checking, Precision, Medical or Surgical Instruments and Apparatus; Clocks and Watches, Musical Instruments; Parts and Accessories Thereof”.

3.9 Chapter Heading 8541 reads as under:

“8541: Diodes, transistors and similar semi-conductor devices; photosensitive semi-conductor devices, including photovoltaic cells whether or not assembled in modules or made up unto panels; light emitting diodes; mounted piezo-electric crystals”

3.10 The **primary function** of an **Ultrasonic Parking Sensor** is to **detect obstacles** and measure distance using **ultrasonic sound waves**, not to emit audio signals or act as a signalling device. The **signaling** aspect (beeping or alerting the driver) is **secondary** and performed by **other components** (buzzer, beeper) of the **entire parking sensor system**. Since the **sensor itself** is responsible for **detection**, and **detection** is its primary function, it **should not be classified under signaling equipment** as it does not function as a **signaling device** but rather as a **measuring device** (similar to a radar or proximity sensor).

3.11 In the case of the ultrasonic sensors in question, as discussed supra, these are essentially semiconductor-based transducers. From the parts list it could be seen that the parts described as G5.3 Disc Betacera (Piezo) is a Piezoelectric disc, that acts as a transducer.

3.12 From 1st January 2022, the heading 8541 underwent a change and Note 12 was introduced explaining the scope of coverage of the heading 8541 thus:

“12. For the purpose of heading 8541 and 8542:

(a) (i) “Semiconductor devices” are semiconductor devices, the operation of which depends on variations in resistivity on the application of an electric field or semiconductor-based transducers. Semiconductor devices may also include assembly of plural elements, whether or not equipped with active and passive device ancillary functions.

“Semiconductor-based transducers” are, for the purposes of this definition, semi-conductor based sensors, semiconductor-based actuators, semiconductor-based resonators and semi-conductor based oscillators, which are types of discrete semiconductor-based devices, which perform an intrinsic function, which are able to convert any kind of physical or chemical phenomena or an action into an electrical signal or an electrical signal into any type of physical phenomenon or an action.

All the elements in semiconductor-based transducers are indivisibly combined, and may also include necessary materials indivisibly attached, that enable their construction or function.

The following expressions mean—

(1) “Semiconductor-based” means built or manufactured on a semiconductor substrate or made of semiconductor materials, manufactured by semiconductor technology, in which the semiconductor substrate or material plays a critical and unreplaceable role of transducer function and performance, and the operation of which is based on semiconductor properties including physical, electrical, chemical and optical properties.



(2) *“Physical or chemical phenomena” relate to phenomena, such as pressure, acoustic waves, acceleration, vibration, movement, orientation, strain, magnetic field strength, electric field strength, light, radioactivity, humidity, flow, chemicals concentration, etc.*

(3) *“Semiconductor-based sensor” is a type of semiconductor device, which consists of microelectronic or mechanical structures that are created in the mass or on the surface of a semiconductor and that have the function of detecting physical or chemical quantities and converting these into electric signals caused by resulting variations in electric properties or displacement of a mechanical structure.*

For the classification of the articles defined in this Note, headings 8541 and 8542 shall take precedence over any other heading in this Schedule, except in the case of heading 8523, which might cover them by reference to, in particular, their function.” (emphasis supplied)

3.13 The HSN explanatory Notes under CTH 8541 at page XVI-8541-3, also state as under:

The types of semiconductor-based transducers are :

(1) **Semiconductor-based sensors**, which are defined in Note 12 (a) (i) (3).

One example of a sensor is a Micro-Electro-Mechanical Systems (MEMS) element used in silicon microphones as a semiconductor-based acoustic sensor. The MEMS element is made up of a stiff and perforated backplate and a flexible membrane on silicon substrate, and its function is to convert sound waves into a variable electrical output. Sound waves are physical quantities that hit the membrane and bring it to vibration through which the varying electrical output is produced.

Another type of sensor is a gas sensor, which utilises the adsorption of electron donors/acceptors to change the resistance in graphene with an extremely high surface area.

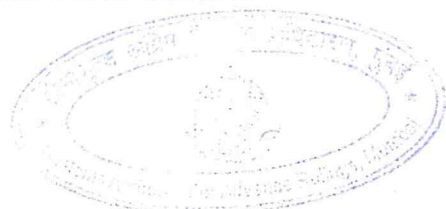
3.14 The ultrasonic parking sensor contains semiconductor-based components (such as piezoelectric crystals) and functions as a semiconductor-based sensor. According to the definitions in HS 8541, semiconductor-based sensors are devices that convert physical phenomena (such as sound waves or proximity) into electrical signals. This fits the characteristics of the ultrasonic Parking sensor, which measures distance and is therefore classified under 8541, not 8512. As the sensor's primary role is detection and measurement, which clearly positions it under HS 8541 (Semiconductor devices) and not HS 8512 (signaling equipment).

3.15 Note 12 is therefore conclusive that for semi-conductor-based devices including transducers, the heading 8541 will be specific in terms of GIR 1 read with Note 12 to Chapter 85. CTH 85415100 specifically covers Semiconductor based transducers. Therefore, classification under CTH 85415100 will be appropriate for the Ultrasonic Parking sensors in question.

3.16 Yet another argument supporting classification of the Ultrasonic Parking Sensor under CTH 85415100, is that even as parts of the rear parking alert/ assist system of CTH 8512, the classification under CTH 8541 can be justified in terms of Note 2(a) to Section XVI as discussed below.

3.17 Given the legal position on classification of the Reverse Parking System and the Ultrasonic Parking Sensor as discussed supra, and given the fact that the Reverse Parking System and the Ultrasonic Parking Sensor are designed for use in Motor vehicles, there are three possible options for classification of the parts of the Ultrasonic Parking Sensors as shown below:

- a. As parts of Ultrasonic Parking Sensors by application of Note 2 to Section XVI under CTH 85419000 or as the case may be by application of Note 1 to Section XVI



- b. As parts of Reverse Parking Alert systems under CTH 85129000
- c. As parts of Motor Vehicles under CTH 8708

3.18 These three options are discussed in detail in the below paragraphs:

Classification of parts of Ultrasonic Sensor under CTH 85419000

3.19 When the classification of the Ultrasonic Sensors on their own under CTH 8541 5100 is justified, the classification of identifiable parts of such sensors will be governed again by Note 2 to Section XVI, extracted below:

"2. Subject to Note 1 to this Section, Note 1 to Chapter 84 and to Note 1 to Chapter 85, parts of machines (not being parts of the articles of heading 8484, 8544, 8545, 8546 or 8547) are to be classified according to the following rules:

(a) parts which are goods included in any of the headings of Chapter 84 or 85 (other than headings 8409, 8431, 8448, 8466, 8473, 8485, 8503, 8522, 8529, 8538 and 8548) are in all cases to be classified in their respective headings;

(b) other parts, if suitable for use solely or principally with a particular kind of machine, or with a number of machines of the same heading (including a machine of heading 8479 or 8543) are to be classified with the machines of that kind or in heading 8409, 8431, 8448, 8466, 8473, 8503, 8522, 8529 or 8538 as appropriate. However, parts which are equally suitable for use principally with the goods of headings 8517 and 8525 to 8528 are to be classified in heading 8517, and parts which are suitable for use solely or principally with the goods of heading 8524 are to be classified in heading 8529];

(c) all other parts are to be classified in heading 8409, 8431, 8448, 8466, 8473, 8503, 8522, 8529 or 8538 as appropriate or, failing that, in heading 8485 or 8548."

3.20 In the matter of *Delton Cables Ltd.* reported in 2005 (181) ELT 373 (SC), the Hon'ble Supreme Court had laid down the ratio of sequential application of Note 2 to Section XVI. In accordance with this ratio, once Note 2(a) is found applicable, recourse to Note 2(b) or 2(c) *ibid* would not be appropriate.

3.21 As Note 2 is subject to the provisions of Note 1 to Section XVI, it will also be necessary to look at the exclusions laid down in Note 1 *ibid*, which has a bearing on classification of a few parts covered in this application. In this regard, a reference to Note 1(a) *ibid* as they apply to articles made of vulcanised rubber other than hard rubber will be relevant as extracted below:

"1. This Section does not cover:

(a) transmission or conveyor belts or belting, of plastics of Chapter 39, or of vulcanized rubber (heading 4010); or other articles of a kind used in machinery or mechanical or electrical appliances or for other technical uses, of vulcanised rubber other than hard rubber (heading 4016);"

3.22 It is therefore now well settled that in accordance with the sequential application of Note 2 *ibid*, once parts could be classified by application of Note 2(a), recourse to Note 2(b) or Note 2(c) will not be legally appropriate.

3.23 In other words, if any of the part of Ultrasonic sensor is covered as goods in any of the headings of Chapter 84 or 85, its classification under that heading will be appropriate in terms of Note 2(a) to Section XVI. Other parts, if they are identifiable parts of Ultrasonic sensors their classification under CTH 85419000 will be appropriate in terms of Note 2(b) to Section XVI.

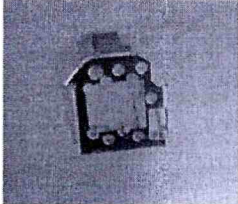
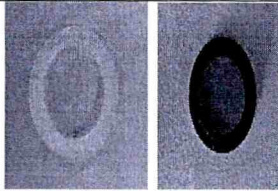
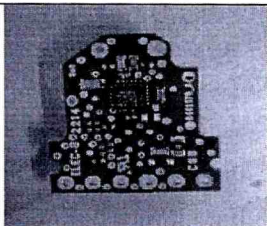
3.24 Only such parts, that cannot be classified either by application of Note 2(a) or Note 2(b) can be

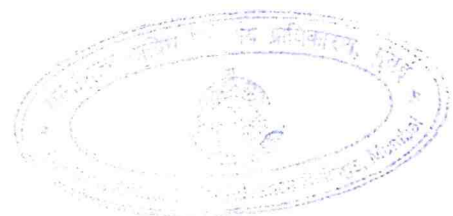


classified under the residuary headings 8485 or 8548. This principle is further subject to the exclusions contemplated under Note 1 to Section XVI and Note 1 to Chapter 84 and Note 1 to Chapter 85.

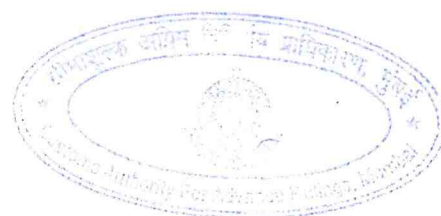
3.25 By applying these principles, the Applicant seeks the classification of the parts of Ultrasonic Parking Sensor as listed in Table -2 below:

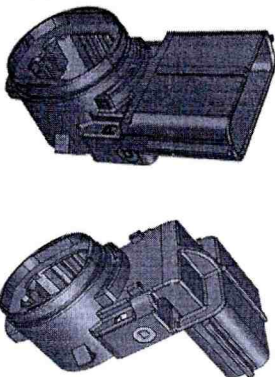
Table -3

No.	Description	Picture	Classification Sought	Material, Function and Justification
1.	Description: Shield cover for sensor		CTH 85419000	Material: Copper & Zinc (CUZN30); Function: It will act as a shield for magnetic field. Justification: Ultrasonic Parking Sensor is classifiable under CTH 8541. As an identifiable part of an Ultrasonic Parking Sensor, classification under CTH 85419000 is appropriate in terms of Note 2(b) to Section XVI.
2.	Description: a) De-coupling ring HKMC Lin; b) PSA de-coupling ring black colour		CTH 40169390	Material: Silicon rubber Justification: Rings made of silicon rubber. Classification under CTH 40169390 will be appropriate in terms of Note 1(a) to Section XVI.
3.	Description: a) PCBA CD LIN b) PSA PCBA CD LIN		CTH 85419000	Material: PCB with resistors, capacitors and transformers Function: Signal filtering, controlling and voltage regularization Justification: Specifically designed for use with the Ultrasonic Parking sensor. As an identifiable part of the Ultrasonic sensor, classification under CTH 85419000 is appropriate in terms of Note 2(b) to Section XVI.



4.	Gen 5.3 contact (terminal pin)		CTH 85419000	Function: Connecting PCB and piezo Justification: Not in the nature of wires or cables. As an identifiable part of the Ultrasonic sensor, then classification under CTH 85419000 is appropriate in terms of Note 2(b) to Section XVI.
5.	G5.3 disc betacera (piezo)		CTH 85416000	Material: Ceramic Function: Transducer Justification: Mounted piezoelectric disc. In terms Note 2(a) to Section XVI read with the HSN ENs under CTH 8541, classification under CTH 85416000 will be appropriate.
6.	Plug for gen 5.3		CTH 40169390	Material: Butyl Rubber Justification: Plugs made of Butyl rubber. Classification under CTH 40169390 will be appropriate in terms of Note 1(a) to Section XVI.
7.	G 5.7 AK sensor cover (front cover)		CTH 85419000	Material: Plastic Justification: Not in the nature of an electrical plug or a wire or cable. As an identifiable part of an Ultrasonic Parking Sensor, classification under CTH 85419000 is appropriate in terms of Note 2(b) to Section XVI.
8.	Powder coated membrane		CTH 85419000	Material: Aluminium Justification: Not in the nature of wires or cables. As an identifiable part of the Ultrasonic Parking Sensor, classification under CTH 85419000 is appropriate in terms of Note 2(b) to Section XVI.



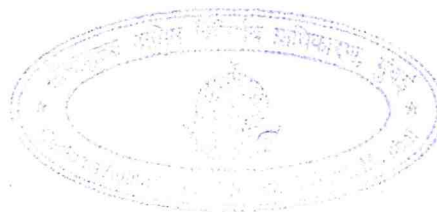
9.	<p>a. Housing (HKMA 6pin HV Lin sensor) 0 deg.</p> <p>b. Housing (HKMC 6pin HV Lin Sensor) 90d</p>		<p>CTH 85419000</p>	<p>Material: Plastic</p> <p>Justification: As an identifiable part of the Ultrasonic sensor, then classification under CTH 85419000 is appropriate in terms of Note 2(b) to Section XVI.</p>
10.	Resin		<p>CTH 39095000</p>	<p>• Consumables : A preparation containing in addition to polyurethane, polyols and formaldehyde polymer in varying proportions, with Polyurethane being the predominant polymer; Clasification under CTH 39095000 will be appropriate in terms of by application of Note 4 to Chapter 39 MSDS attached</p>
11.	Hardner		<p>CTH 39093100</p>	<p>Consumables: preparation in question the reaction mass 4,4'-methylenediphenyl diisocyanate and O-(p-isocyanatbenzyl) phenyl isocyanate predominates with a content of (50% - 70%). Used as a hardener alongwith the resin. In terms of GIR 1 classification under CTH 39093100 will be appropriate. MSDS attached</p>

Classification under CTH 85129000 as parts of the Reverse Parking Alert System

3.26 As already discussed supra, the parts in question are parts of the Ultrasonic Parking Sensor, which by itself is classifiable under CTH 85415100. As the Ultrasonic Parking Sensor is by itself an instrument and classifiable as an independent machine or apparatus under CTH 85415100, classification of identifiable parts of the Ultrasonic Parking Sensor will be governed by Note 2 to Section XVI.

3.27 Once this position is clear then classification under CTH 85129000 can be ruled out as CTH 85129000 can be justified only when it can be established that the parts of Ultrasonic Parking Sensors can be regarded as identifiable parts of Reverse Parking Alert systems of CTH 85122090.

3.28 Even granting that the Ultrasonic Parking Sensor, is by itself an identifiable component of the Reverse Parking Alert System, when the Ultrasonic Parking Sensor when presented separately is classifiable as an apparatus / instrument under CTH 85415100, classification of the parts of Ultrasonic Parking Sensor, should be independent of the Reverse Parking Alert System, by application of Note 2 to Section XVII.



3.29 When Note 2 to Section XVI is applied to the identifiable parts of Ultrasonic Parking Sensor, classification principles should be applied having regard to the classification of Ultrasonic Parking Sensor under CTH 85415100 and not with reference to the Reverse Parking Alert systems of CTH 85122090. Therefore, classification of the parts of Ultrasonic Parking Sensor under CTH 85129000 can be ruled out.

Classification under CTH 8708 as parts of Motor vehicles

3.30 The classification of motor vehicles parts and accessories is governed by Note 2 and 3 to Section XVII and the related HSN ENs under Section XVI and 8708.

3.31 It is apparent from a harmonious reading of Note 2 to Section XVII, the HSN ENs thereunder, that all articles of Chapter 85 are excluded from being classified as parts/ accessories of motor vehicles under CTH 8708 by Note 2(f) *ibid* even when such parts/ accessories are identifiable for use with the motor vehicles of Chapter 87.

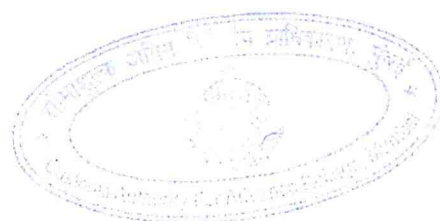
3.32 Ultrasonic Reverse Parking Sensor as already discussed *supra* is classifiable under CTH 85415100. Therefore, the Ultrasonic Parking Sensor cannot be classified under CTH 8708 for the reason of it being excluded by Note 2(f) to Section XVII and the HSN ENs under Section XVII also confirm this legal position.

3.33 When the Ultrasonic Parking Sensor cannot be classified under CTH 8708 in the light of the legal exclusions laid down in Note 2(f) *ibid*, classification of the identifiable parts of Ultrasonic Parking Sensor under CTH 8708 cannot also be justified. Given the fact that the Ultrasonic Parking Sensor is legally classifiable under CTH 85415100, the classification of the identifiable parts of the Ultrasonic Parking Sensor will be governed only by Note 2 to Section XVI. Therefore, classification of the identifiable parts of Ultrasonic Parking Sensor under CTH 8708 can be ruled out.

3.34 For all the above reasons discussed *supra*, classification of the parts of Ultrasonic Parking Sensor by application of Note 2 to Section XV read with Note 1(a) to Section XVI will be appropriate. By application of these principles, the appropriate classification of the 11 parts in question will be as shown in Table-4 below:

Table -4

SI No	Description	HS Codes sought
1	PSA de-coupling ring Black Color Decoupling Ring HKM Lin U	40169390
2	Front cover for sensor	85419000
3	Powder coated aluminium membrane	85419000
4	Piezo disc (G5.3 DISC)	85416000
5	Plug 5 GEN.	40169390
6	Gen 5.3 Contact (terminal pin)	85419000
7	PCBA CD Lin (Printed Circuit Board Assembly)	85419000
8	Shield cover for sensor (EMC protection)	85419000
9	HKMC 6PIN HV LIN Sensor housing	85419000
10	Resing	39095000
11	Hardner	39093100



3.35 Given the highly technical nature of the data relating to the subject products being discussed and provided in the application, the applicant respectfully request that the information provided therein be treated as confidential. The application contains detailed technical information on the products that only unique to the applicant, and crucial to their competitive edge. Public disclosure of such technical data could potentially provide competitors with an unfair advantage, thereby compromising the applicant's business interests. They therefore kindly request that the ruling, along with any related information not be published, to prevent any unintended dissemination of sensitive and critical technical information.

4. Port of Import and reply from jurisdictional Commissionerate:

4.1 The applicant in their CAAR-1 indicated that they intend to import the subject goods i.e. multiple parts of Ultrasonic Parking Sensor at the jurisdiction of Office of the Pr. Commissioner of Customs, NS-V, JNCH, Nhava Sheva, Tal: Uran, Distt: Raigad, Maharashtra – 400 707; at the jurisdiction of Office of the Pr. Commissioner of Customs (I), Air Cargo Complex, Sahar, Andheri (E), Mumbai – 400 099 and at the jurisdiction of the Pr. Commissioner of Customs, Port User Building, Mundra Port, Mundra, Kutch, Gujarat – 370421. The application was forwarded to the Pr. Commissioner of Customs, NS-V, JNCH, Nhava Sheva, Tal: Uran, Distt: Raigad, Maharashtra – 400 707; to the Office of the Pr. Commissioner of Customs (I), Air Cargo Complex, Sahar, Andheri (E), Mumbai – 400 099 and to the office of the Pr. Commissioner of Customs, Port User Building, Mundra Port, Mundra, Kutch, Gujarat – 370421 for their comments on 11.06.2025. Further reminders were sent on 08.08.2025, 25.08.2025 and 15.09.2025. No comments have been received from JNCH and Mundra Commissionerate.

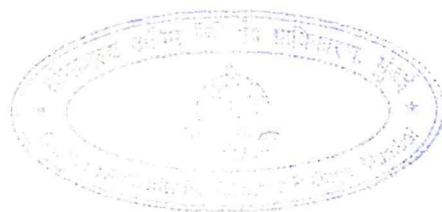
4.2 The Sahar Air Cargo Import Commissionerate vide their letter dated 18.09.2025 submitted that the ultrasonic parking sensor falls under 8541.51.00 if the same are having independent function and are not parts of any other goods. In case the same become essential parts of Motor Vehicles, the same should be classified under chapter 8708 as part of Motor Vehicles. Further, it was submitted that the parts of the ultrasonic parking sensor would be classified as under:

- Piezo Disk – 8541.60.00
- PCB, housings, membrane, shield – 8541.90.00
- Rubber parts – 4016.93.90
- Resin – 3909.50.00
- Hardener – 3909.31.00

5. Details of Hearing

5.1 A hearing was held on 12.08.2025 at 11.30 AM. Sh. P. Sridharan, authorized representative appeared online for the hearing on behalf of the applicant and reiterated the contention submitted with the application. He stated that the subject goods are “parts of Ultrasonic Parking Sensor” to be used in automotive rear parking alert/assist system. He explained that primarily Ultrasonic Parking system has 3 major parts: a. Ultrasonic Sensor, b. ECU and c. Buzzer/alarm. The Ultrasonic Sensor senses the distance by electronic system in from of visual and audio signal which is carried to the driver. He submitted that this device is basically “Semiconductor based transducer” and merit classification under CTH 8541. He referred to Note 12 to Chapter 85 which specifically defines semiconductor-based transducers. Such devices are able to convert any kind of physical or chemical phenomenon or an action into electrical signal vice versa. He argued that since the subject goods are specifically covered under the CTH 8541, it cannot be classified in another CTH.

Nobody appeared on behalf of the department for the hearing.



DISCUSSION AND FINDINGS

6.1 I have considered all the materials placed before me in respect of the subject goods. I have gone through the submission made by the applicant, response received from the concerned commissionerate, the arguments presented during the hearing. Therefore, I proceed to pronounce a ruling on the basis of information available on record as well as existing legal framework.

6.2 The Applicant has sought advance ruling in respect of the following question:

- a. Whether the products i.e., Parts of Ultrasonic Parking Sensor are classifiable under CTH 8512, or under CTH 8541 or under CTH 8708, of the First Schedule of the Customs Tariff Act, 1975 or otherwise.

6.3 At the outset, I find that the issue raised in the question in the Form CAAR-1 is squarely covered under Section 28H(2) of the Customs Act, 1962 being a matter related to classification of goods under the provisions of this Act.

6.4 Before deciding on the issue, let me deliberate on the legal framework prescribed in Customs Tariff Act, 1975, Chapter/ Section notes along with HSN explanatory notes. As per Rule 1 of GRI, the titles of Sections, Chapters and sub-Chapters are provided for ease of reference only; for legal purposes, classification shall be determined according to the terms of the headings and any relative Section or Chapter Notes.

6.5 The Applicant has submitted that the subject goods, i.e., parts of ultrasonic parking sensors, are used in automotive **rear parking alert/assist systems**. **Such systems generally comprise three principal components: ultrasonic sensors, controllers, and displays or buzzers/alarms.**

An ultrasonic sensor is an instrument that measures the distance to an object by means of ultrasonic sound waves. It employs a transducer to emit and receive ultrasonic pulses, which are then used to determine the proximity of surrounding objects. High-frequency sound waves reflect off surfaces to produce echo patterns, which are analyzed to calculate distance.

These sensors utilize piezoelectric devices, which generate electricity when subjected to mechanical force between electrodes. Conversely, when voltage is applied between the electrodes, the device undergoes a mechanical change proportional to the applied voltage. The electrical signals so generated are used to detect the presence of an object and to measure its distance from the sensor.

The controller processes the signals received from the sensors in order to calculate the distance and orientation between the vehicle body and any obstacle. Specifically, the controller transmits a sine wave pulse to the sensor, processes the returned signal, determines the corresponding distance value, and then communicates this information to the display. The principal functions of the controller are signal filtering and calculation.

When the sensors detect that the vehicle has reached a critical proximity to an obstacle, the system triggers an alert via the display and buzzer to warn the driver. The display, in turn, generates visual or auditory warnings, including distance-based alarm sounds.

An ultrasonic sensor is essentially a semiconductor-based (piezoelectric) transducer which converts a physical phenomenon (sound waves/mechanical vibrations) into a corresponding electrical signal, and vice versa.

Before proceeding to examine the classification of the parts of ultrasonic parking sensors, **it is necessary to first determine the appropriate classification of the main product, namely the rear parking alert/assist system, of which the ultrasonic parking sensor constitutes an integral component.**



6.6 A rear parking alert/assist system in a vehicle is a driver-assistance technology designed to help the driver while reversing or parking by detecting obstacles behind the vehicle and alerting the driver to prevent collisions. It mainly consists of, **Ultrasonic sensors** (transducers that send/receive sound waves), **Controller (ECU)** (electronic processing unit), and **Display / buzzer / alarm system** (signaling device to the driver).

When the driver engages reverse gear, the system activates automatically. The ultrasonic sensors send out sound waves that bounce off obstacles behind the car. The returning echo signals are captured by the sensors and transmitted to the ECU. The ECU calculates the distance between the vehicle and the obstacle based on the time delay of the returning signal. As the vehicle approaches the obstacle, the system alerts the driver through **increasingly frequent beeps** or visual cues on the display. When the vehicle is dangerously close, the warning becomes continuous or more intense.

The ultrasonic sensors serve only to generate and capture signals, while the controller merely processes the data. However, when viewed as a complete unit, the rear parking assist system performs the primary function of **signaling the driver, through sound or visual alerts, regarding the presence and distance of obstacles.**

The applicant submitted that the rear parking alert/ assist system comprises of an ultrasonic sensor, a controller and display or a buzzer, interconnected by wires and designed to contribute together to a clearly defined function is covered under Chapter Heading 8512 of the First Schedule of the Customs Tariff Act, 1975.

The Chapter Heading 8512 covers “*Electrical lighting or signalling equipment (excluding articles of heading 85.39), windscreen wipers, defrosters and demisters, of a kind used for cycles or motor vehicles*”. The relevant Explanatory Notes to Chapter Heading 8512 is extracted as under for ease of reference:

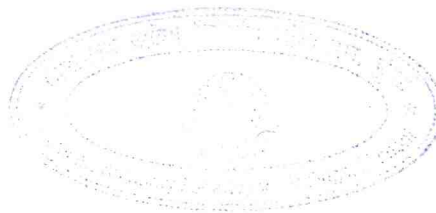
*“8512.10-Lighting or visual signalling equipment of a kind used on bicycles
8512.20 Other lighting or visual signalling equipment
8512.30 Sound signalling equipment
8512.40 Windscreen wipers, defrosters and demisters
8512.90 Parts*

This heading covers electrical apparatus and appliances specialised for use on cycles or motor vehicles for lighting or signalling purposes. It does not, however, cover, dry batteries (heading 85.06), electric accumulators (heading 85.07) or dynamos and magneto-dynamos of heading 85.11. The heading also includes electrical windscreen wipers, defrosters and demisters for motor vehicles.

The heading includes, inter alia

- (1) Dynamos for generating electric current by means of a friction wheel running on one of the tyres or wheel rims of a bicycle or, in some rare cases, of a motor-cycle.*
- (2) ...*
....
- (13) Electrical apparatus which emit audio signals to warn the driver of the proximity of vehicles or other objects behind the vehicle when reversing. These apparatus usually comprise ultrasonic sensors, an electronic control unit, a buzzer or beeper and associated wiring.*

From the above, it is evident that the rear parking alert/ assist system comprises of an ultrasonic sensor, a controller and display or a buzzer, is specifically covered under the Chapter Heading 8512 (*Electrical lighting or signalling equipment (excluding articles of heading 85.39), windscreen wipers,*



defrosters and demisters, of a kind used for cycles or motor vehicles) of the First Schedule of the Customs Tariff Act, 1975.

6.7 Now, I proceed to examine the classification of the Ultrasonic Parking Sensor, which is one of the component or part of rear parking alert/ assist system.

The relevant HSN Explanatory Notes to Customs Tariff Heading (CTH) 8512, concerning the classification of “*parts*”, are reproduced below for reference:

“PARTS

Subject to the general provisions regarding classification of parts (see the General Explanatory Note to Section XVI), parts of the goods of this heading are also classified here”.

Further, it would also be useful to refer to Note 2 of Section XVI of the Customs Tariff Act, 1975 which provides for rules to be followed while classifying ‘parts of machines’ falling under Chapters 84 and 85. The relevant part of the Section Note 2 is reproduced below:

"2.- Subject to Note 1 to this Section, Note 1 to Chapter 84 and Note 1 to Chapter 85, parts of machines (not being parts of the articles of heading 84.84, 85.44, 85.45, 85.46 or 85.47) are to be classified according to the following rules:

(a) *Parts which are goods included in any of the headings of Chapter 84 or 85 (other than headings 84.09, 84.31, 84.48, 84.66, 84.73, 84.87, 85.03, 85.22, 85.29, 85.38 and 85.48) are in all cases to be classified in their respective headings;*"

(b) *other parts, if suitable for use solely or principally with a particular kind of machine, or with a number of machines of the same heading (including a machine of heading 8479 or 8543) are to be classified with the machines of that kind or in heading 8409, 8431, 8448, 8466, 8473, 8503, 8522, 8529 or 8538 as appropriate. ²[However, parts which are equally suitable for use principally with the goods of headings 8517 and 8525 to 8528 are to be classified in heading 8517, and parts which are suitable for use solely or principally with the goods of heading 8524 are to be classified in heading 8529];*

(c) *all other parts are to be classified in heading 8409, 8431, 8448, 8466, 8473, 8503, 8522, 8529 or 8538 as appropriate or, failing that, in heading 8485 or 8548.*

Note 2 deals with three categories of parts (i) parts which are goods included in any of the headings of Chapter 84 or 85 (ii) other parts suitable for use solely or principally with a particular kind of machine, or with a number of machines of the same heading and (iii) all other parts.

It is further noted that Note 2 to Section XVI is subject to Note 1 to the same Section. As per Note 1, the Section does not cover certain articles, including:

“1. This Section does not cover :

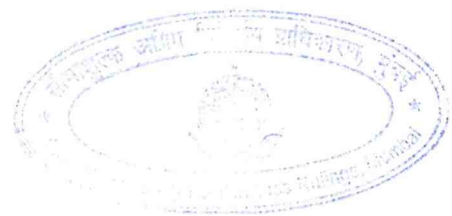
(a) *transmission or conveyor belts or belting, of plastics of Chapter 39, or of vulcanised rubber (heading 4010), or other articles of a kind used in machinery or mechanical or electrical appliances or for other technical uses, of vulcanised rubber other than hard rubber (heading 4016);*

(b) *articles of leather or of composition leather (heading 4205) or of furskin (heading 4303), of a kind used in machinery or mechanical appliances or for other technical uses;*

(c) *bobbins, spools, cops, cones, cores, reels or similar supports, of any material (for example, Chapter 39, 40, 44 or 48 or Section XV);*

(d) *perforated cards for Jacquard or similar machines (for example, Chapter 39 or 48 or Section XV);*

(e) *transmission or conveyor belts or belting of textile material (heading 5910) or other articles of textile material for technical uses (heading 5911);*



(f) *precious or semi-precious stones (natural, synthetic or reconstructed) of headings 7102 to 7104, or articles wholly of such stones of heading 7116 except unmounted worked sapphires and diamonds for styli (heading 8522);*

(g) *parts of general use, as defined in Note 2 to Section XV, of base metal (Section XV), or similar goods of plastics (Chapter 39);*

(h) *drill pipe (heading 7304);*

(ij) *endless belts of metal wire or strip (Section XV);*

(k) *articles of Chapter 82 or 83;*

(l) *articles of Section XVII;*

(m) *articles of Chapter 90;*

(n) *clocks, watches or other articles of Chapter 91;*

(o) *interchangeable tools of heading 8207 or brushes of a kind used as parts of machines (heading 9603); similar interchangeable tools are to be classified according to the constituent material of their working part (for example, in Chapter 40, 42, 43, 45 or 59 or heading 6804 or 6909);*

(p) *articles of Chapter 95; or*

(q) *typewriter or similar ribbons, whether or not on spools or in cartridges (classified according to their constituent material, or in heading 9612 if inked or otherwise prepared for giving impressions), or monopods, bipods, tripods and similar articles, of heading 9620.”*

6.7.2 It is evident from Note 2(a) that where a part is itself a good that is specifically covered under any heading of Chapter 84 or 85 (except the excluded headings), such part is to be classified in that heading itself. In other words, the condition for classification under Note 2(a) is that the part must be clearly covered as a “goods” in the nomenclature of Chapters 84 or 85.

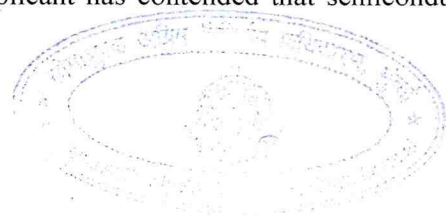
On the other hand, as per Note 2(b), if a part is not specifically covered as a good in Chapters 84 or 85, but is suitable for use solely or principally with a particular kind of machine, it is to be classified along with that machine or under the relevant parts heading specified therein.

An **ultrasonic parking sensor** is a proximity sensing system commonly used in automobiles to assist drivers in detecting obstacles while parking or maneuvering at low speeds. It operates on the principle of **ultrasonic sound waves** (sound waves with frequencies higher than the audible range for humans, typically around 40 kHz and above).

The sensor emits ultrasonic pulses through a **piezoelectric transducer**, which is usually made of ceramic or crystalline materials capable of converting electrical energy into mechanical vibrations and vice versa. When an alternating voltage (at approximately 40 kHz) is applied to the piezoelectric element (commonly lead zirconate titanate, PZT), it vibrates and generates ultrasonic sound waves. These waves travel through the air, strike an obstacle (such as a wall, another vehicle, or a pedestrian), and are reflected back toward the sensor.

The same piezoelectric element can also function as a receiver: the returning ultrasonic echoes exert pressure on the crystal, which in turn generates a corresponding electrical signal. This signal is then processed by the Electronic Control Unit (ECU), which calculates the time taken for the echo to return—a method known as the Time of Flight (ToF) technique. Based on this measurement, the system determines the distance between the vehicle and the obstacle and provides appropriate warnings to the driver.

The applicant has submitted that the ultrasonic sensors in question incorporate a component described as G5.3 Disc Betacera (Piezo), which is a piezoelectric disc functioning as a transducer. It has further been argued that the ultrasonic parking sensor contains semiconductor-based components (such as piezoelectric crystals) and, therefore, functions as a semiconductor-based sensor. Relying upon Note 12 to Chapter 85 and the definitions under HS Heading 8541, the applicant has contended that semiconductor-



based sensors are devices which convert physical phenomena (such as sound waves or proximity) into electrical signals, and that this description fits the ultrasonic parking sensor. On this basis, classification under CTI 8541 5100 (Semiconductor-based transducers) has been proposed, notwithstanding that the sensors are used as parts of the rear parking assist/alert system covered under CTH 8512, in terms of Note 2(a) to Section XVI.

However, it is pertinent to note that the applicant's understanding is factually and technically misplaced. The **G5.3 Disc Betacera (Piezo)** is a **piezoelectric ceramic disc transducer**, typically made of ceramic compounds such as lead zirconate titanate (PZT) or barium titanate. These are dielectric ceramic materials, not semiconductors. Their operation is based on the **piezoelectric effect**—that is, the generation of an electric charge in response to mechanical stress and vice versa—not on the electron-hole conduction principle which characterises semiconductor devices.

Semiconductor devices (falling under Heading 8541) include diodes, transistors, photosensitive semiconductor devices, light-emitting diodes (LEDs), and semiconductor-based sensors. These devices derive their operation from the electrical properties of semiconductor materials such as silicon, germanium, or gallium arsenide. In contrast, piezoelectric crystals/discs are insulating dielectric materials and do not fall within the definition of semiconductors.

Thus, while the ultrasonic parking sensor indeed converts ultrasonic sound waves into electrical signals, it achieves this conversion through a **piezoelectric ceramic element**, not through a semiconductor device. Therefore, the sensor cannot be considered a semiconductor-based transducer within the meaning of CTI 8541 5100. Accordingly, the applicant appears to be incorrect in his understanding about the functionality and the technical nature of the transducer, and the ultrasonic parking sensor is not classifiable under CTH 8541.

6.7.3 Upon sequential application of the rules provided in Section Note 2 to Section XVI, it is observed that there is no specific entry under Chapter 84 or Chapter 85 which specifically cover the Ultrasonic Parking Sensor. Accordingly, these goods are excluded from the purview of Section Note 2 (a).

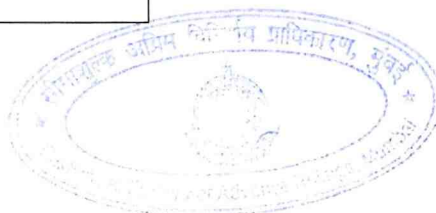
In light of the above, reference must be made to Section Note 2 (b) which covers other parts which are suitable for use solely or principally with a particular machine. In the present case, the subject goods namely, Ultrasonic Parking Sensor, are specifically designed and manufactured for use with Reverse parking /alert system. Therefore, they are capable of being used solely or principally with such apparatus covered under Heading 8512.

Accordingly, it is pertinent to note that the subject goods satisfy the "*sole or principal use*" criterion laid down under Section Note 2(b). As such, they are classifiable under Heading 8512 in accordance with General Interpretative Rule (GIR) 1, read with Section Note 2(b) to Section XVI.

Further, Customs Tariff Item (CTI) 8512 90 00 specifically covers *parts* of the goods falling under Heading 8512. Accordingly, the Ultrasonic Parking Sensor, being a part of the reverse parking/alert system, is appropriately classifiable under CTI 8512 90 00 of the First Schedule to the Customs Tariff Act, 1975, in terms of Section Note 2(b) to Section XVI, read with the Explanatory Notes to Heading 8512.

6.8 I now proceed to examine the classification of the individual parts of the Ultrasonic Parking Sensor, which itself forms a part of the reverse parking/alert system classifiable under Customs Tariff Heading (CTH) 8512. The parts under consideration are as follows:

Sr.No.	Product Description
1.	PSA de-coupling ring Black Color Decoupling Ring HKM Lin U
2.	Front cover for sensor
3.	Powder coated aluminium membrane
4.	Piezo disc (G5.3 DISC)



5.	Plug 5 GEN.
6.	Gen 5.3 Contact (terminal pin)
7.	PCBA CD Lin (Printed Circuit Board Assembly)
8.	Shield cover for sensor (EMC protection)
9.	HKMC 6PIN HV LIN Sensor housing
10.	Wevopur 306 M/30 (Resin)
11.	Wevonut 9015 (Hardener)

It is observed that these parts are part of Ultrasonic Sensor, which is also part of reverse parking/alert system classifiable under CTH 8512. When an article is itself classified as a “part” of a machine or apparatus, then its sub-components (i.e., the “parts of that part”) are also considered parts of the parent machine/apparatus. In the regard reliance is placed on the following judgements:

- **The Hon’ble Supreme Court in the case of CCE v. Star Paper Mills Ltd.**(1989 (43) ELT 178 SC), clarified that *parts of parts, which ultimately go into the machine, are to be classified as parts of that machine.*
- In the case of **CCE v. MP (I) Ltd.** [1990 (46) ELT 68], the court held that a bicycle valve is part of a tire, which is in turn part of a bicycle. Therefore, the valve is considered a part of the bicycle for classification purposes.
- **The Hon’ble Court in the case of Sahney Steel and Press Works Ltd., Bombay v. UOI** [1988 (36) ELT 94 (Bom HC)], held that a starter armature, which is a component of an automobile starter motor, was held to be a part of the automobile.

From the above case law, the principle “part of part is part of the whole” means that components or sub-assemblies are considered part of the main product they belong to and are classified accordingly, not as separate items.

6.8.2 The classification of each of these components shall be examined individually, taking into account the relevant provisions of the Section Notes, HSN Explanatory Notes, and the exclusionary criteria outlined above.

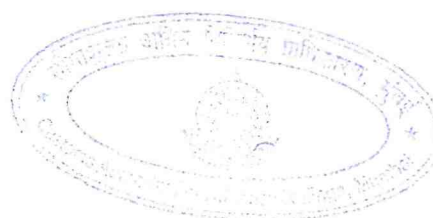
1. PSA de-coupling ring Black Color Decoupling Ring HKM Lin U

The applicant submitted that these rings are made of silicone rubber. PSA de-coupling ring (black color, silicone rubber) is used inside the Ultrasonic Parking Sensor to provide vibration isolation, proper fitting, and sealing. It is specifically designed and shaped for use in the Ultrasonic Parking Sensor.

It is essentially a ring-shaped article of vulcanised rubber and thus falls within the scope of Heading 4016 of the Customs Tariff which covers “*Other articles of vulcanised rubber other than hard rubber*”. Further, under this heading, the CTI 40169320 covers “*Rubber rings (O-ring)*”

The product is a circular rubber ring used for sealing and fitting purposes, classification under this specific entry is appropriate in preference to a residual category, in line with the general rules of interpretation and the WCO Explanatory Notes.

Therefore, by virtue of GIR1, Note 2(a) to Section XVI, and Explanatory Notes to Heading 8512, the PSA de-coupling ring Black Color Decoupling Ring HKM Lin U is appropriately classifiable under CTI 40169320 (Rubber rings (O-ring)) of the First Schedule of the Customs Tariff Act, 1975.



2. Front cover for sensor

The applicant has submitted that the front cover for the sensor is made of plastic and is not in the nature of an electrical plug, wire, or cable.

Given its specific design and application, the said front cover is intended solely for use with the Ultrasonic Parking Sensor and is not a general-purpose item. Accordingly, it does not fall within the ambit of Note 1 to Section XVI. Upon sequential application of the provisions of Section Note 2 to Section XVI, it is noted that there is no specific entry under Chapter 84 or Chapter 85 which covers the subject goods, namely, the front cover for sensor. Therefore, these goods are excluded from the scope of Section Note 2(a).

In such circumstances, reference is drawn to Section Note 2(b), which applies to parts suitable for use solely or principally with a particular machine. In the present case, the subject goods are specifically designed and manufactured for use with the Ultrasonic Parking Sensor, and hence, satisfy the “sole or principal use” criterion under Section Note 2(b).

Consequently, the goods are classifiable under Heading 8512 in accordance with General Interpretative Rule (GIR) 1, read with Section Note 2(b) to Section XVI. Further, the single-dash entry under Heading 8512, namely CTI 85129000, covers “Parts” of all goods of Heading 8512.

Therefore, by virtue of GIR 1, Section Note 2(b) to Section XVI, and the Explanatory Notes to Heading 8512, the product in question, i.e., the front cover for sensor, is appropriately classifiable under CTI 85129000 (Parts) of the First Schedule to the Customs Tariff Act, 1975.

3. Powder coated aluminium membrane

The applicant submitted that powder coated aluminium membrane is made of Aluminium and not in the nature of wires or cables. It is an identifiable part of the Ultrasonic Parking Sensor.

Given its specific design and application, the powder coated aluminium membrane is intended solely for use with the Ultrasonic Parking Sensor and is not a general-purpose item. Accordingly, it does not fall within the ambit of Note 1 to Section XVI. Upon sequential application of the provisions of Section Note 2 to Section XVI, it is noted that there is no specific entry under Chapter 84 or Chapter 85 which covers the subject goods, namely, the powder coated aluminium membrane. Therefore, these goods are excluded from the scope of Section Note 2(a).

In such circumstances, reference is drawn to Section Note 2(b), which applies to parts suitable for use solely or principally with a particular machine. In the present case, the subject goods are specifically designed and manufactured for use with the Ultrasonic Parking Sensor, and hence, satisfy the “sole or principal use” criterion under Section Note 2(b).

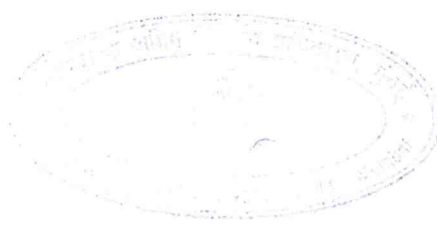
Consequently, the goods are classifiable under Heading 8512 in accordance with General Interpretative Rule (GIR) 1, read with Section Note 2(b) to Section XVI. Further, the single-dash entry under Heading 8512, namely CTI 85129000, covers “Parts” of all goods of Heading 8512.

Therefore, by virtue of GIR 1, Section Note 2(b) to Section XVI, and the Explanatory Notes to Heading 8512, the product in question, i.e., the powder coated aluminium membrane, is appropriately classifiable under CTI 85129000 (Parts) of the First Schedule to the Customs Tariff Act, 1975.

4. Piezo disc (G5.3 DISC)

The applicant has submitted that the part described as G5.3 Disc Betacera (Piezo) is a piezoelectric disc made of ceramic material. It is further stated that the said item is a mounted piezoelectric disc.

It is seen that Piezoelectric discs, are typically manufactured from **lead zirconate titanate (PZT) ceramics** or similar piezoelectric ceramics. These ceramics have the property of generating an electric



charge when subjected to mechanical stress, and conversely, they deform when an electric field is applied. This is why they are widely used in ultrasonic devices, sensors, actuators, and transducers.

In this regard, the relevant HSN Explanatory Notes to Heading 8541 (*Semiconductor devices (for example, diodes, transistors, semiconductor-based transducers); photosensitive semiconductor devices, including photovoltaic cells whether or not assembled in modules or made up into panels; light-emitting diodes (LED), whether or not assembled with other light-emitting diodes (LED); mounted piezo-electric crystals.*), are reproduced below for ease of reference:

*“(A) SEMICONDUCTOR DEVICES (FOR EXAMPLE DIODES, TRANSISTORS,
SEMICONDUCTOR BASED TRANSDUCERS)*

..
..
.

(D) MOUNTED PIEZO-ELECTRIC CRYSTALS

*These are mainly barium titanate (including polycrystalline polarised elements of barium titanate), lead titanate zirconate or other crystals of heading 38.24 (see the corresponding Explanatory Note), or quartz or tourmaline crystals. They are used in microphones, loudspeakers, ultrasonic apparatus, stabilised frequency oscillating circuits, etc. They are classified here only if mounted. **They are generally in the form of plates, bars, discs, rings, etc., and must, at least, be equipped with electrodes or electric connections.** They may be coated with graphite, varnish, etc., or arranged on supports and they are often inside an envelope (e.g., metal box, glass bulb). If, however, because of the addition of other components, the complete article (mounting plus crystal) can no longer be regarded as merely a mounted crystal but has become identifiable as a specific part of a machine or appliance, the assembly is classified as a part of the machine or appliance in question: e.g., piezo-electric cells for microphones or loudspeakers (heading 85.18), sound-heads (heading 85.22), pick-up elements (feelers) for ultrasonic thickness measuring or detecting instruments (generally classified in accordance with Note 2 (b) to Chapter 90 or in heading 90.33, as the case may be), quartz oscillators for electronic watches (heading 91.14).*

This heading also excludes unmounted piezo-electric crystals (generally heading 38.24, 71.03 or 71.04). ”

From the above, it is evident that Heading 8541 specifically covers piezoelectric crystals in the form of discs when equipped with electrical connections to make them suitable for use in electronic or electromechanical devices. In the present case, the G5.3 Disc Betacera (Piezo) is a piezoelectric disc provided with electrical connections, thereby meeting the criteria of a mounted piezoelectric crystal.

Consequently, the as Piezo disc (G5.3 DISC) is classifiable under Heading 8541 in accordance with General Interpretative Rule (GIR) 1, read with Section Note 2(a) to Section XVI. Further, the single-dash entry under Heading 8541, namely CTI 85416000, covers “*Mounted Piezo Electric Crystals*”.

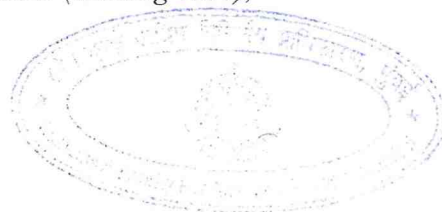
Therefore, by virtue of GIR 1, Section Note 2(a) to Section XVI, and the Explanatory Notes to Heading 8541, the product in question, i.e., Piezo disc (G5.3 DISC), is appropriately classifiable under CTI 85416000 (*Mounted Piezo Electric Crystals*) of the First Schedule to the Customs Tariff Act, 1975.

5. Plug 5 GEN.

The applicant submitted that Plug 5 GEN is made of Butyl Rubber.

In terms of Note 1(a), the Section XVI does not cover the following goods as under:

(a) transmission or conveyor belts or belting, of plastics of Chapter 39, or of vulcanised rubber (heading 4010), or other articles of a kind used in machinery or mechanical or electrical appliances or for other technical uses, of vulcanised rubber other than hard rubber (heading 4016);



The impugned product is essentially article of vulcanised rubber, not incorporating any electrical conducting elements, and functions as a rubber component rather than as an electrical connector. Being an article of vulcanised rubber other than hard rubber, designed for technical use in the Ultrasonic Parking Sensor, it squarely falls within the ambit of Heading 4016 of the Customs Tariff which specifically covers "Other articles of vulcanised rubber other than hard rubber." Accordingly, by application of GIR 1 and Note 1(a) to Section XVI, the Plug 5 GEN made of butyl rubber is appropriately classifiable under CTH 4016. Further, there is no specific entry for the subject goods under Chapter Heading 4016.

From the above, it is evident that the subject goods namely, Plug 5 GEN is not covered under any of the specific subheading at the eight-digit level under heading 4016. Consequently, they fall under the residuary entry 40169990 (Others). Therefore, by virtue of GIR1, Note 1(a) to Section XVI, and Explanatory Notes to Heading 5212, the products in question i.e., Plug 5 GEN is classifiable under CTI 40169990 (Other) of the First Schedule of the Customs Tariff Act, 1975.

6. Gen 5.3 Contact (terminal pin)

The applicant has submitted that the Gen 5.3 Contact (terminal pin) is used to connect the PCB and piezo element and is not in the nature of wires or cables. These are identifiable parts of the Ultrasonic Parking Sensor.

Given its specific design and application, the Gen 5.3 Contact (terminal pin) is intended solely for use with the Ultrasonic Parking Sensor and is not a general-purpose item. Accordingly, it does not fall within the ambit of Note 1 to Section XVI. Upon sequential application of the provisions of Section Note 2 to Section XVI, it is noted that there is no specific entry under Chapter 84 or Chapter 85 which covers the subject goods, namely, the Gen 5.3 Contact (terminal pin). Therefore, these goods are excluded from the scope of Section Note 2(a).

In such circumstances, reference is drawn to Section Note 2(b), which applies to parts suitable for use solely or principally with a particular machine. In the present case, the subject goods are specifically designed and manufactured for use with the Ultrasonic Parking Sensor, and hence, satisfy the "sole or principal use" criterion under Section Note 2(b).

Consequently, the goods are classifiable under Heading 8512 in accordance with General Interpretative Rule (GIR) 1, read with Section Note 2(b) to Section XVI. Further, the single-dash entry under Heading 8512, namely CTI 85129000, covers "Parts" of all goods of Heading 8512.

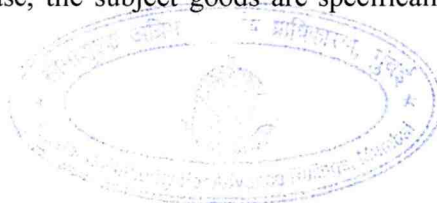
Therefore, by virtue of GIR 1, Section Note 2(b) to Section XVI, and the Explanatory Notes to Heading 8512, the product in question, i.e., the Gen 5.3 Contact (terminal pin) is appropriately classifiable under CTI 85129000 (Parts) of the First Schedule to the Customs Tariff Act, 1975.

7. PCBA CD Lin (Printed Circuit Board Assembly)

The applicant submitted that PCBA CD Lin (Printed Circuit Board Assembly) is a PCB with resistors, capacitors and transformers. It is used for signal filtering, controlling and voltage regularization. These are specifically designed for use with the Ultrasonic Parking sensor.

Given its specific design and application, the PCBA CD Lin (Printed Circuit Board Assembly) is intended solely for use with the Ultrasonic Parking Sensor and is not a general-purpose item. Accordingly, it does not fall within the ambit of Note 1 to Section XVI. Upon sequential application of the provisions of Section Note 2 to Section XVI, it is noted that there is no specific entry under Chapter 84 or Chapter 85 which covers the subject goods, namely, the PCBA CD Lin (Printed Circuit Board Assembly). Therefore, these goods are excluded from the scope of Section Note 2(a).

In such circumstances, reference is drawn to Section Note 2(b), which applies to parts suitable for use solely or principally with a particular machine. In the present case, the subject goods are specifically



designed and manufactured for use with the Ultrasonic Parking Sensor, and hence, satisfy the “sole or principal use” criterion under Section Note 2(b).

Consequently, the goods are classifiable under Heading 8512 in accordance with General Interpretative Rule (GIR) 1, read with Section Note 2(b) to Section XVI. Further, the single-dash entry under Heading 8512, namely CTI 85129000, covers “Parts” of all goods of Heading 8512.

Therefore, by virtue of GIR 1, Section Note 2(b) to Section XVI, and the Explanatory Notes to Heading 8512, the product in question, i.e., the PCBA CD Lin (Printed Circuit Board Assembly) is appropriately classifiable under CTI 85129000 (Parts) of the First Schedule to the Customs Tariff Act, 1975.

8. Shield cover for sensor (EMC protection)

The applicant has submitted that the shield cover for the sensor is made of copper and zinc and functions as a shield against magnetic fields. It is an identifiable part of the Ultrasonic Parking Sensor.

Given its specific design and application, the shield cover for sensor is intended solely for use with the Ultrasonic Parking Sensor and is not a general-purpose item. Accordingly, it does not fall within the ambit of Note 1 to Section XVI. Upon sequential application of the provisions of Section Note 2 to Section XVI, it is noted that there is no specific entry under Chapter 84 or Chapter 85 which covers the subject goods, namely, the shield cover for sensor. Therefore, these goods are excluded from the scope of Section Note 2(a).

In such circumstances, reference is drawn to Section Note 2(b), which applies to parts suitable for use solely or principally with a particular machine. In the present case, the subject goods are specifically designed and manufactured for use with the Ultrasonic Parking Sensor, and hence, satisfy the “sole or principal use” criterion under Section Note 2(b).

Consequently, the goods are classifiable under Heading 8512 in accordance with General Interpretative Rule (GIR) 1, read with Section Note 2(b) to Section XVI. Further, the single-dash entry under Heading 8512, namely CTI 85129000, covers “Parts” of all goods of Heading 8512.

Therefore, by virtue of GIR 1, Section Note 2(b) to Section XVI, and the Explanatory Notes to Heading 8512, the product in question, i.e., the shield cover for sensor is appropriately classifiable under CTI 85129000 (Parts) of the First Schedule to the Customs Tariff Act, 1975.

9. HKMC 6PIN HV LIN Sensor housing

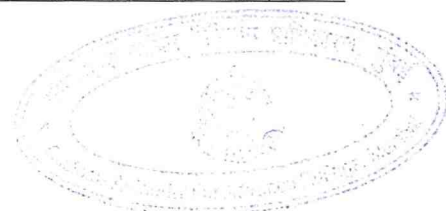
The applicant has submitted that HKMC 6PIN HV LIN Sensor housing is made of plastic material and it is an identifiable part of the Ultrasonic sensor.

Given its specific design and application, the HKMC 6PIN HV LIN Sensor housing is intended solely for use with the Ultrasonic Parking Sensor and is not a general-purpose item. Accordingly, it does not fall within the ambit of Note 1 to Section XVI. Upon sequential application of the provisions of Section Note 2 to Section XVI, it is noted that there is no specific entry under Chapter 84 or Chapter 85 which covers the subject goods, namely, the HKMC 6PIN HV LIN Sensor housing. Therefore, these goods are excluded from the scope of Section Note 2(a).

In such circumstances, reference is drawn to Section Note 2(b), which applies to parts suitable for use solely or principally with a particular machine. In the present case, the subject goods are specifically designed and manufactured for use with the Ultrasonic Parking Sensor, and hence, satisfy the “sole or principal use” criterion under Section Note 2(b).

Consequently, the goods are classifiable under Heading 8512 in accordance with General Interpretative Rule (GIR) 1, read with Section Note 2(b) to Section XVI. Further, the single-dash entry under Heading 8512, namely CTI 85129000, covers “Parts” of all goods of Heading 8512.

Therefore, by virtue of GIR 1, Section Note 2(b) to Section XVI, and the Explanatory Notes to Heading 8512, the product in question, i.e., the HKMC 6PIN HV LIN Sensor housing is appropriately classifiable under CTI 85129000 (Parts) of the First Schedule to the Customs Tariff Act, 1975.



10. Wevopur 306 M/30 (Resin)

The applicant has submitted that Wevopur 306 M/30 (Resin) is a preparation containing in addition to polyurethane, polyols and formaldehyde polymer in varying proportions, with Polyurethane being the predominant polymer.

It is observed that wevopur 306 M/30 is a polyurethane resin used to encapsulate and protect sensitive electronic parts, especially in automotive and industrial applications.

I noted that Chapter Heading 3909 specifically covers “Amino-resins, phenolic resins and polyurethanes, in primary forms”. Since Wevopur 306 M/30 is a polyurethane resin and not an article of plastic, it falls under CTH 3909.

Therefore, by virtue of GIR 1, and the Explanatory Notes to Heading 3909, the product in question, i.e., the Wevopur 306 M/30, being a polyurethane resin in primary form used for encapsulation of electronic components, is appropriately classifiable under CTI 39095000 (Polyurethanes) of the First Schedule to the Customs Tariff Act, 1975.

11. Wevonut 9015 (Hardener)

The applicant has submitted that Wevonut 9015 (Hardener) is a preparation in which the reaction mass of 4,4'-methylenediphenyl diisocyanate and O-(p-isocyanatbenzyl) phenyl isocyanate predominates with a content of 50%–70%. The product is used as a hardener in combination with polyurethane resin for encapsulation and protective applications.

Since poly(methylene phenyl isocyanate) (PMDI) is not a single substance but a mixture of monomeric MDI and related oligomeric/polymeric isocyanates, the composition and functional use of Wevonut 9015 align with the characteristics of PMDI. Accordingly, Wevonut 9015 can be considered a form of poly(methylene phenyl isocyanate).

It is noted that the Explanatory Notes to Heading 3909 specifically cover “*poly(methylene phenyl isocyanate)*.” Therefore, by virtue of General Interpretative Rule (GIR) 1 read with the Explanatory Notes to Heading 3909, the product in question, i.e., Wevonut 9015, being a form of poly(methylene phenyl isocyanate), is appropriately classifiable under CTI 39093100 (Poly(methylene phenyl isocyanate) (crude MDI, polymeric MDI)) of the First Schedule to the Customs Tariff Act, 1975.

7. The applicant, in their submission, has requested that the ruling and related information not be published, citing the highly technical nature of the data provided in the application. It has been contended that the application contains proprietary technical details that are unique to the applicant and critical to their competitive position and that disclosure of such information could potentially result in an unfair advantage to competitors.

The Authority has duly considered the request in light of Regulation 27 of the Customs Authority for Advance Rulings Regulations, 2021, as amended vide Notification No. 63/2022-Customs (N.T.) dated 20.07.2022, which provides that:

“27. Publication of orders or advance rulings - Such of the orders or advance rulings of the Authority, as the Authority deems fit for publication in any authoritative report or the press, may be released for such publication on such terms and conditions as the Authority may specify.

Provided that at the request of the applicant, the Authority may take necessary steps in order to protect commercially confidential information”.

Upon examination, it is observed that the ruling in the present case does not contain any technical data or proprietary information that is unique to the applicant. Furthermore, the details of the products in question are publicly available, and the information submitted by the applicant appears to have been sourced from websites accessible in the public domain, including the applicant's own website



Accordingly, I am of the view that the request for confidentiality does not warrant consideration in the present case, as the ruling does not reveal any sensitive or commercially confidential information requiring protection under Regulation 27. Therefore, the request to keep the ruling confidential is not accepted.

8. In view of the above facts and circumstances of the case, I arrive at the conclusion that the products listed in above Table-1 are classifiable under the respective Customs Tariff Items (CTI) of the First Schedule of the Customs Tariff Act, 1975, as follows:

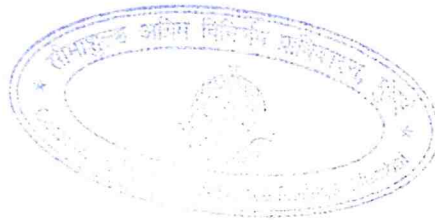
Sr.No.	Product Description	CTI
1.	PSA de-coupling ring Black Color Decoupling Ring HKM Lin U	40169320
2.	Front cover for sensor	85129000
3.	Powder coated aluminium membrane	85129000
4.	Piezo disc (G5.3 DISC)	85416000
5.	Plug 5 GEN.	40169990
6.	Gen 5.3 Contact (terminal pin)	85129000
7.	PCBA CD Lin (Printed Circuit Board Assembly)	85129000
8.	Shield cover for sensor (EMC protection)	85129000
9.	HKMC 6PIN HV LIN Sensor housing	85129000
10.	Wevopur 306 M/30 (Resin)	39095000
11.	Wevonut 9015 (Hardener)	39093100

9. I rule accordingly.

Y. S. Rameshwaram
25/9/25

(Prabhat K Rameshwaram)

Customs Authority for Advance Rulings, Mumbai



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

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(Vivek Dwivedi)

Dy. Commissioner & Secretary
Customs Authority for Advance Rulings,
Mumbai

