Art. 2 The Ex-tariffs below the respective legal acts indicated are hereby revoked:

NCM	Nº Ex DESCRIPTION		
8471.70.19	2	Trays of custom servers for use in network racks in telecom applications with power distribution capacity of + 48v, containing 15 units of rigid magnetic disks (HDD) storage capacity from 4 to 32TB.	
8541.40.32	173	bifacial photovoltaic modules for power generation, monocrystalline, with an output (front) exceeding 405Wp with efficiency (front) not less than 19.7% (196,76Wp / m²) with dimensions of 2,038 x 1,010 x 41mm, with unit CIF value not exceeding R \$ 602.44.	
8541.40.32	174	bifacial photovoltaic modules for power generation, monocrystalline, with an output (front) exceeding 410Wp with efficiency (front) greater than or equal to 19.9% (199,19Wp / m²) with dimensions of 2,038 x 1,010 x 41mm, with unit CIF value not exceeding R \$ 613.91.	
8541.40.32	175	bifacial photovoltaic modules for power generation, monocrystalline, with an output (front) exceeding 415Wp with efficiency (front) not less than 20.2% (201,61Wp / m²) with dimensions of 2,038 x 1,010 x 41mm, with unit CIF value not exceeding R \$ 619.65.	
8541.40.32	176	PV modules with channels for water flow, for power generation and heating water, monocrystalline, with output exceeding 125Wp with a thickness of 3mm glass top; with dimensions of 1250 x 650 x 40mm.	

Art. 3 The Ex-tariffs below are included in the respective legal acts indicated:

NCM	Nº Ex	DESCRIPTION	
8541.40.32	193	bifacial photovoltaic modules for power generation, monocrystalline, with an output (front) exceeding 405Wp with	
		efficiency (front) not less than 19.7% (196,76Wp / m²) with dimensions of 2,038 x 1,010 x 30mm, with unit CIF value	
		not exceeding R \$ 602.44.	
8541.40.32	194	bifacial photovoltaic modules for power generation, monocrystalline, with an output (front) exceeding 410Wp with	
		efficiency (front) greater than or equal to 19.9% (199,19Wp / m²) with dimensions of 2,038 x 1,010 x 30mm, with unit	
		CIF value not exceeding R \$ 613.91.	
8541.40.32	195	bifacial photovoltaic modules for power generation, monocrystalline, with an output (front) exceeding 415Wp with	
		efficiency (front) not less than 20.2% (201,61Wp / m²) with dimensions of 2,038 x 1,010 x 30mm, with unit CIF value	
		not exceeding R \$ 619.65.	
8541.40.32	196	PV modules with channels for water flow, for power generation and heating water, monocrystalline, with output	
		exceeding 125Wp with a thickness of 3mm glass top; with dimensions of 1.294mm x 685mm x 111,1mm.	

Art. 1 The Ex-tariffs on the Informatics and Telecommunications Goods listed in the Sole Annex of this Resolution are included in Annex I of Resolution nº 15, of February 19, 2020, of the Executive Management Committee of the Foreign Trade Chamber.

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NCM	Nº Fx	DESCRIPTION		
INCIVI	IIA. FX	DESCRIPTION		

8443.32.99	51	Printers of electronic and / or labelers labels with print option on tapes or labels, with up to 176mm / s printing speed in thermal transfer printing ribbons with width between 3.5 to 62mm and printing resolution from 180dpi to 360 x		
8443.32.99	52	Machines inkjet printers with technology "Drop-on-Demand (DoD) thermal inkjet" for plastic cards, containing single color cartridge slot, with stable inks to UV rays and resistant to fading in yellow, magenta and cyan, capacity edge to edge printing resolution of 600 x 1.200dpi, speed up to 36s / card printing pattern used for printing on PVC cards, PVC polished pressed, laminated or PVC compound of dimensions 85.6 x 54 x 0,762mm (CR-80 standard), 1GB of RAM, USB 2.0 interface, with or without contactless card encoder.		
8443.99.29	14	Subsets of ink tanks, consisting of support piece injected in high impact polystyrene, ink tanks with their lids, injected polypropylene, elastomer hoses, the printhead injected ABS, electronic ink level sensor; Ink locking systems comprising levers rotating and sliding, steel springs, seal rings; filters and anti-clogging valves with elastomer body part for exclusive use in print engine for inkjet.		
8443.99.90	9	Device for suction of the ink tanks to the printhead, consisting of the body, handle and plunger with a nominal diameter of 19,4mm injected thermoplastic polyacetal (POM), and may contain steel springs, washers, screws and gasket for exclusive use in printers inkjet.		
8471.80.00	30	criptomoedas storage devices, supporting Bitcoin, Ethereum, XRP, Bitcoin Cash, EOS, Stellar, among other digital currencies, secure bitcoin wallet, with function to connect any computer through USD and built-in screen OLED for double and confirmation check transactions with a single touch your buttons.		
8471.90.11	3	Access units to use the machine release by password or device keypad RFID to control and internal storage of data containing the transaction activity information such as operator presence, traction performance, hydraulic actuation, shock level axes X, Y and Z, interface for sending data via "GPRS" or "Bluetooth" with communication option via "CANBUS" and baud rate between 250 and 500kbps.		
8471.90.19	11	fixed RF proximity readers (RFID), compliant with EPC Global UHF Class 1 Gen 2 standards / ISO 18000-63 / RAIN RFID, operating with Global EPC protocol, with 2 or 4 RF ports for connecting monoestaticas antennas or multiplexers antennas, support power over Ethernet (PoE and / or PoE +) with -84 receiving sensitivity and -92dBm or maximum transmit power of 30 to 33dBm.		
8504.40.40	7	Units providing uninterrupted power for feeding data processing installations of up to 800kVA, power supply 380/400 / 415V, using UPS 100% modulating with change of its modules hot without shutdown with cooling system online through water or air cooling capacity of up to 35kW per unit in air conditioning line, automatic detection and fire suppression and intelligent management system for IT and TC infrastructure facilities through DCIM, contains CCTV system and control access to embedded solution with standard density efficiency of up to 15 kW / rack and up to 30kW / rack with customization, free cooling technology compatible with lower PUE or equal to 1.2, life 25, IP55 or IP65 water and dust antissísmico NEBS GR63 unique Zone3 (equivalent to 9 degrees of intensity anti-		
		Seismic), 120min fire resistance and compliance with TIER UPTIME topologies and TIA942 to solution "data center" external modular pre-fabricated metal structure.		

8517.12.21	3	Radio transceivers, the trunked system (trunking) digital protocol TETRA (Terrestrial Trunked Radio), with the following characteristics: operating frequency (UHF) range from 350 to 870MHz; meets or exceeds the 11 categories of MIL STD 810C / D / E / F / G / H (low pressure, high and low temperature, thermal shock, solar radiation, rain, humidity, salt spray, dust and sand, vibration and shock); feature "multi-layered emergency fallback" which enables the activation of the emergency call even when the radio is out of range of the system "Trunking"; with minimal LCD display 132 x 90 pixels and 262K colors; ability to "Bluetooth"; integrated GPS capability.	
8517.12.21	4	Radio transceivers for trunked system (trunking) digital protocol tetrahydrofuran (Terrestrial Trunked Radio), for use in potentially explosive industrial area with the following characteristics: operating frequency (UHF) range from 350 to 870MHz; operating voltage 7,6V battery, battery at least 1.250mAh; operating temperature of -20 to +55 degrees Celsius; 2 and displays a front and a top both transflective color; standard protection class IP64, IP65, IP66, IP67 according to IEC-60079-0: 2011 and IEC-605-29; module with "bluetooth" and integrated GPS; with capacity of 10,000 talkgroups in TMO and 2000 talkgroups in BMD.	
8517.61.99	2	communication stations for use in rescue operations and water rescue, type "wireless" with cable transducer, enabling communication at up to 2 channels, powered by AA battery, DSP signal technology and integrated speaker.	
8517.62.41	8	intelligent peripheral devices for use in inverters "string" of photovoltaics, performs connection to management systems via Ethernet connection or WLAN (Wi-Fi), supports a 10-inverter connection at the same time (using a master device), connection interface USB, Ethernet interface capable of 10 / 100M Ethernet, WIFI connection usin standard wireless frequency 802.11b / g / n (2.412G-2.484G), dimensions 146 x 48 x 33mm, power consumption (typical) 2.5W, TKIP / CCMP / AES (WPA / WPA2 mechanism), certified for the SRRC standards, CE, RCM, operating temperature range -30 to +65 degrees celsius, relative humidity 5-95% RH and maximum altitude of	
8517.62.41	9	edge routers, for data communication, compatible with the standard WiSUN IEEE802.15.4g and capable of operating in the ISM band from 902 to 928MHz topology networks "Mesh" or "Star" with spread spectrum by jumping frequency (FHSS), IPv6 addressing and transmission power of up to + 30dBm, with communication interface "fast ethernet" and power "full-range" of 85 to 336VAC.	
8517.62.59	85	Ethernet communication cards applied in protection systems processing plants and electrical isolation in distribution networks, with terminal system connection function with the central control network, made up of electronic board with comb-like terminal, electronic components passive and active with standard TCP / IP, UDP / IP, OSI and standard 10/100 Base-T, up to 100MBps communication speed with automatic switchover and 2 connectors RJ45 or RJ45 connector and a fiber optic connector MTRJ.	
8517.62.59	86	multidisciplinary equipment designed to establish WAN connectivity solutions between locations being an open platform for multi-vendor using "software" directly installed or virtualized mode with standard x86 processors 4-16 colors, RAM 8 to 128GB internal disk SSD (Solid State Drive) with 120GB capacity up to 4TB with minimum 2 USB 3.0 ports multifunction and console port, ease of TPM 2.0, minimum 4-port 1GE UTP and 2 SFP + for interfaces to 10GE, maximum height of 5, 2cm on the mounting table mounting the option and option 4.445cm rack equipped with 1 or 2 power supplies, ventilation system with "IO to USP" or side and rear exhaust system.	

8517.62.59	87	multidisciplinary equipment designed to establish WAN connectivity solutions with "software" directly installed that implements based traffic optimization in DMPO protocol (dynamic multi path optimization), with standard x86 processors 2-16 colors, RAM 4 to 128GB disk internal or memory "flash" with 16GB capacity up to 4TB with minimum 2 ports USB multifunction and console port, minimum 4-port 1GE UTP and 2 ports 1GE SFP, reaching 12 ports of 1GE or 10-port SFP + 10GE, with option ports the power supply UTP to 90W, the maximum height of 5.2cm option 4.445cm mounting table and the mount option "rack", equipped with 1 or 2 power sources.
8517.62.61	1	Radio transceivers for mobile trunked system (trunking) TETRA protocol digital (terrestrial trunked radio), with the following characteristics: operating frequency (UHF) range from 350 to 470MHz, data transmission service capacity enhanced tetra (TEDS); panel with keypad 12 keys and display color 640 x 480 pixels; meets or exceeds the 11 categories of MIL STD 810C / D / E / F / G / H (low pressure, high or low temperature, heat shock, solar radiation, rain, humidity, salt fog, blasts dirt, sand bursts, vibration and shock); integrated GPS receiver; capable of encryption (encrypted communication) TEA1, tea2 and / or TEA3; control panel assembly capacity in the radio body or
8517.62.62	25	cellular communication modules compatible with NB IoT technology compatible with Release 13 and 14 of the 3GPP for restricted applications of size 15 x 18 x 2.3mm, welding terminals in LGA format options for communication interface: 3x UART, SPI, I2C, 6 x I / O Ports and 1V8 SIM and 10-bit ADC. power amplifier integrated 23dBm, "front end" RF supported bands B1, B2, B3, B4, B5, B8, B12, B13, B18, B19, B20, B25, B26, B28, B66, B71, B85 supporting the following protocols: LWM2M, UDP, TCP, DTLS / TLS Coap, FTP, HTTP / HTTPS, and allows SMS by NB-IoT with core single processing, RAM embedded and memory "flash" 4MB with PMU, DSP and RF integrated.
8517.62.62	26	Devices for mobile data reception and transmission operating in 5G DSS technology (Dynamic Spectrum Sharing) and 4G, according to the standard 3GPP Release 15, Cat 22 and can operate fully or partially in the bands n1, n2, n3, n5, n7, n8, N12, N20, N28, N38, N40, N41, N48, N66, N71, N77, N78, N79 and optionally in the bands N257, N258 and N261, ready to 3.5GHz and / or 26GHz; conducted transmitting power of 23dBm at least antennas and
8517.62.94	19	Devices "wireless" for collecting data from parameter sensing electronics belt conveyor rolls (vibration, temperature, speed, RPM) with capacity for integration "software" external operating frequency of 433MHz with rollers, power supply AC or DC, and at least one of the communication interfaces: 3G, 4G, WiFi and / or ethernet TCP / IP.
8517.69.00	7	folding glasses, monocular, augmented and mixed reality reality that allow an expanded perception of the environment to the environment with tracking and recognition in real-time object, voice recognition service that interact with other applications (local and cloud) and improvement image through algorithms that adjust contrast, color and edge detection, allows voice commands and movements by gesture that allow hands are free to perform other activities, can be coupled to a thermal camera that allows the identification of temperature without contact up to 200 people in less than 1 minute and at a distance of 3 to 6m.
8536.50.90	89	Proximity sensors to be installed in the prototype pump / engine with sensors will be installed in the set, which will operate in a pool with a maximum depth of 10m depth and pressure of 200bar in the process line, dimensioned for a maximum pressure of work 10,000 psi and 80 degrees celsius.

8537.10.20	48	DCS control panels (underlying control network open, digital and multi-point communication) with programmable logic-PLC controller (Programmable logic controller - PLC) based on network "fieldbus", equipped with three	
		operating modes: automatic and manual by scenario, 24V.	
8541.40.32	192	photovoltaic modules, intended for power generation, 72 provided with cells (6 x 12) of monocrystalline silicon with dimensions of 1979 x 996 x 40mm area of 1,97m2 with external module with PERC sheath (Passivated Emitter and rear Cell), IP 167/168 junction box with a maximum rated power (STC) of 390Wp, current short circuit 10,24A, to withstand temperature range of -40 to +85 degrees celsius, with a maximum rated voltage system of 1.500V with positive power tolerance and efficiency of 19.79%, rating "a" temperature coefficient (Pmax) of -0.36% / degree celsius and the nominal operating cell temperature (NOCT) 45 + / -2 degrees celsius, tempered glass surfaces 3.2mm thick, solar cables with a length of 900mm, anodized aluminum frame unit value (CIF) not exceeding US \$	
8543.70.99	254	Wireless communication equipment used for water search and rescue operations, capable of withstanding temperatures below 10 degrees Celsius, suitable for depths of up to 50m, with exhaust unidirectional regulator without adjustment body made of silicone and ABS and weight display maximum of 1.2kg, type "fullface" with handheld transmitter, microphone and telephony, enabling communication at up to 2 different channels with a nominal range of 50 to 500m, automatic dynamic control with power more than 80db, with low battery indicator with	
9032.89.83	10	Electromagnetic radiation sensors for measuring humidity or "Brix", with or without contact with the product to be measured, liquid, or solid solutions, able to detect reproducibility +/- 0.1% at -20 to +65 degrees celsius, have an antenna station and manufactured collector stainless steel ISO 1.4301, coated or not engineering plastic (PTFE, PFA or PVDF), analog input 40 to 20mA passive with internal load of 250 ohms, power output 4 20mA / HART active or passive with maximum load 500Ohms maximum power consumption and 8W / 10VA with qualification SIL SIL 2 or SIL 3 (optional) with operating voltage 18 to 32VCC or 110 to 240VAC, 50 / 60Hz, with degree of protection IP66 / IP67 3 connection cable gland 1 x M20, M16 x 2.	
9032.90.10	1	Electronic signs its own interface for use in the protection relay (Form6) with digital inputs and outputs, 8 input contacts and 8 output control contacts, both configurable.	
9032.90.10	2	Electronic boards processing unit with built-in CPU with data sampling 64vezes / cycle, 32-bit controller. memory "flash" external 1M x 8bits, static RAM 512k x 32 bits, "clock" and 50MHz consumption of 1 / 3W to 3V.	
9032.90.10	3	analog interface boards with electronic recloser and terminal block for connecting the analog signal current and voltage magnitudes suitable for processing such information, and the CPU.	