

FCC adds foreign-produced power inverters and advanced robotic devices to the Covered List

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On July 28, 2026, pursuant to national security determinations adopted by the relevant executive branch agencies (Determinations), the Federal Communications Commission's (FCC; Commission) Public Safety and Homeland Security Bureau (PSHSB) announced that foreign-produced power inverters and foreign-produced advanced robotic devices are being added to the Covered List maintained by the Commission pursuant to Section 2 of the Secure and Trusted Communications Networks Act of 2019.¹ The practical consequence of these additions is that a newly covered device may no longer obtain a required FCC equipment authorization – without which it generally cannot be imported into, marketed in, or sold in the US.

The restriction is prospective. Models that the Commission authorized before July 28 may continue to be imported, marketed and sold; consumers may go on using devices they have already bought; and nothing in the action affects sales to or use by the federal government or federal agencies.² The FCC's Office of Engineering and Technology (OET) issued a companion waiver the same day preserving the ability to push software and firmware updates to that installed base, which we discuss below.

For a foreign-produced device that falls within the applicable definition, the only express route to a new FCC authorization is a conditional approval. The Department of Defense (DoD) may grant one for an advanced robotic device; either DoD or the Department of Homeland Security (DHS) may grant one for a power inverter. Applications, which are filed through the FCC, are due by January 1, 2028.

Companies in either sector should keep two things in mind as they work through the analysis. The listings turn on where and how a product is produced rather than on the nationality of the company producing it, so a US manufacturer producing abroad may be caught while a foreign-owned manufacturer producing domestically may not. And the definitions that the DoD and DHS prescribed are considerably narrower than what the FCC headline categories may suggest. Most close questions will be resolved by reading them. However, it is possible that clarifications could be requested through the FCC by affected parties.

Which products are covered

The threshold question is whether a device is "foreign produced." Both Determinations adopt the same test, asking whether the article qualifies as a domestic end product under 48 CFR § 25.101(a). For a manufactured product, that ordinarily means the item must be manufactured in the US and must also satisfy the domestic-content requirement, which, for items delivered in calendar years 2024 through 2028, generally requires that domestic components exceed 65% of total component cost.

For inverters, Appendix B sets out a two-part definition. The device must be a bidirectional power device or system that converts direct current to alternating current, or alternating current to direct current, a category the determination says includes microinverters, string inverters, central inverters and hybrid battery-based inverters. It must also contain components enabling remote communication, control, sensing, data collection or monitoring through Wi-Fi, cellular, Bluetooth or other comparable connections.

Both parts of the definition must be satisfied. An inverter lacking the specified connectivity is outside the definition no matter where it was made, and manufacturers whose catalogs span connected and unconnected models would be well advised to map that boundary before pursuing an application for conditional approval.

¹ [Covered List Public Notice](#), DA 26-786 (rel. July 28, 2026), with Appendix A (revised Covered List), Appendix B (Power Inverters National Security Determination), and Appendix C (Advanced Robotic Devices National Security Determination).

² FCC Fact Sheet, "[FCC Updates Covered List to Include Foreign-Produced Advanced Robotic Devices and Power Inverters](#)" (July 28, 2026), "[FAQs on Recent Updates to FCC Covered List Regarding Foreign-Produced Advanced Robotic Devices and Power Inverters](#)."

Appendix C addresses robotic devices through a four-element definition. A covered device is a mechanical mobile device – including autonomous mobile robots, humanoid robots and quadrupeds – that (i) is capable of locomotion, obstacle avoidance, navigation or movement on the ground; (ii) operates at a distance from a human operator based on commands, sensor data or some combination; (iii) weighs more than 4.4 pounds, counting any ground station or docking station; and (iv) contains a sensor capable of perceiving its environment, a component providing wired or wireless network connectivity at 200 kilobits per second or better in either direction, and software, whether local or remote, including firmware and machine-learning model weights, controlling autonomous navigation, movement perception, data collection, or remote command and control.

Three features of that definition deserve comment. First, because the weight calculation includes the docking or ground station, a robot that would fall below the threshold on its own may exceed it once its base is counted. Second, the connectivity floor of 200 kilobits per second is low enough to capture a wide range of contemporary connected products. Finally, nothing limits the definition to industrial or defense equipment. It therefore can reach consumer household robots that satisfy all four elements, and the determination's supporting evidence specifically discusses vulnerabilities affecting robots used in homes.

The determination excludes six categories: connected vehicles as defined in 15 CFR § 791.301, with the exclusion extended here to vehicles of any gross weight; vehicles operated only on a rail line; uncrewed aircraft and uncrewed aircraft systems; unmanned underwater vehicles able to operate without a human occupant; devices classified under Section 513 of the Federal Food, Drug and Cosmetic Act, including surgical instruments, medical and surgical robotic systems, external limb prostheses and their components, and mobility-assistance devices such as canes, crutches, walkers and wheelchairs, whether or not powered; and fixed, stationary, nonmobile robots, including articulating; parallel or delta; Cartesian or gantry; and selective compliance assembly/articulated robot arms (SCARA) intended for industrial or medical use.

Falling outside this listing does not necessarily end the analysis. Depending on the product and transaction, other regimes may apply, including the US Department of Commerce's Information and Communications Technology and Services (ICTS) regulations implementing Executive Order 13873 – such as the connected-vehicles rule – as well as export controls, procurement restrictions and sector-specific cybersecurity requirements.

Effect on equipment already authorized

A rule change that the Commission adopted in October 2025, effective that December, removed equipment prohibited from authorization under Section 2.903 from the procedures that permit changes to already-certified equipment.³ Read mechanically against the new listings, that would have barred permissive changes to inverters and robotics devices authorized before July 28, including security patches, simply because the categories had been added to the list.

OET moved on the same day to prevent that result. Public Notice DA 26-789 announced that the prohibitions in 47 CFR §§ 2.932(b) and 2.1043(b) will not apply for the time being to covered inverters and covered advanced robotic devices, and that authorized devices may continue to receive software and firmware updates mitigating harm to consumers at least until January 1, 2029.⁴ The waiver covers Class I and Class II permissive changes alike and reaches updates that maintain device functionality, patch vulnerabilities, and preserve compatibility with different operating systems. It follows the same approach that OET took for uncrewed aircraft systems in January and for consumer routers in March, both of which were extended to 2029 in May.

But the relief is narrower than a quick reading might suggest. It allows only software and firmware updates to devices that the FCC had already authorized before the new listings; it does not cover hardware changes or new models. All other equipment authorization requirements remain in effect. OET described the waiver as temporary and indicated that the relief will remain available at least through January 1, 2029.⁵

Notably, much of the guidance most favorable to industry regarding previously authorized equipment appears not in the public notice but in an FCC fact sheet and an accompanying FAQ page.⁶ While those FCC-issued materials provide useful clarification, the operative documents are of course the Covered List Public Notice and OET's waiver, themselves.

Seeking a conditional approval

Applications take the form of a machine-readable PDF sent to conditional-approvals@fcc.gov, certified by an authorized corporate officer, and accompanied by a continuing obligation to disclose material changes – with DoD or DHS evaluating power-inverter applications and DoD evaluating advanced-robotic-device applications.

The exercise bears little resemblance to a product certification. It functions instead as a national security review that requires extensive supply-chain disclosures and a detailed, time-bound plan to establish or expand US manufacturing.⁷ The specific disclosures required are summarized in the annex below.

3 "Protecting Against National Security Threats to the Communications Supply Chain Through the Equipment Authorization Program," 90 Fed. Reg. 53227 (Nov. 25, 2025).

4 Public Notice DA 26-789, "Office of Engineering and Technology Announces Waiver of Prohibitions on Certain Class I and Class II Permissive Changes to Covered Foreign-produced Advanced Robotic Devices and Covered Foreign-produced Power Inverters" (rel. July 28, 2026). Comparable to prior waivers issued at DA 26-69 (Jan. 21, 2026) (UAS) and DA 26-286 (Mar. 23, 2026) (routers), and extended and expanded at DA 26-454 (May 8, 2026).

5 *Id.* Note that in connection with routers, OET also has issued individual waivers relating to permissive hardware changes in certain cases. See Order, DA 26-641 (rel. June 26, 2026) (Verizon). Assuming potentially applicable, no such waiver requests have been filed for inverters or advanced robotic devices to date.

6 See *supra* Note 2.

7 The complete texts can be found in through the Covered List guidance documents on [foreign-produced power inverters](#) and [foreign-produced advanced robotic devices](#).

Several aspects of the process warrant emphasis. The FCC has no role in the decision process other than to forward materials to the reviewing agencies, DoD or DHS, and report results. Applications are due January 1, 2028, and filing carries no assurance of success; the reviewing agencies may seek additional information at their discretion. Decisions are final, subject to adjustment only if the granting agency chooses to revisit them, and the guidance describes no administrative appeal. A knowing violation of an approval's terms, or a material misrepresentation to the government, terminates the approval and bars the applicant from applying again.

The record supporting the Determinations

Notably, the FCC did not conduct the underlying risk assessment to justify the Determinations. The White House convened an executive branch interagency body under 47 U.S.C. § 1601(c)(1) and (c)(4), which authorize the convening of such a body and identify the national-security agencies that participate in it. On July 27, that body sent the FCC the two Determinations, each identifying the same two categories of risk, a supply-chain vulnerability capable of disrupting US economic and national security, as well as a cybersecurity risk to critical infrastructure and the safety and security of US persons.

The PSHSB then made the limited legal determination assigned to it by statute. It concluded that each interagency submission constituted a specific determination under section 2 of the Secure and Trusted Communications Networks Act of 2019, and that the Commission was therefore required to add the equipment to the Covered List. The PSHSB did not reassess the underlying security judgments; it found the statutory trigger satisfied and implemented the consequences. That framing will matter to anyone contemplating a challenge, because the FCC lacked discretion to decline once a qualifying determination was received.

Remote connectivity sits at the center of the government's risk case for both categories, which explains why connectivity ended up as an element of both definitions rather than merely as a justification for listing.

For inverters, the determination emphasizes the grid's dependence on inverter-based resources, the concentration of supply outside the US and an episode in which a non-US manufacturer remotely disabled inverters it had already sold following a commercial dispute with a distributor. The robotics determination focuses on high-fidelity sensing and the potential for remote control, citing a vulnerability that permitted a remote actor to take over certain humanoid robots and spread the compromise to others nearby, along with a reported preinstalled backdoor in foreign-produced quadrupeds.

An asymmetry in the record is worth noting. Neither Determination names a country in its operative language, but the evidence assembled to support them is heavily China-specific, drawing on reporting about Chinese technology in American humanoid robots, vulnerabilities in Chinese robotic platforms, Chinese LiDAR and Chinese vulnerability-disclosure law. The consequence is that a manufacturer producing in an allied, or otherwise trusted jurisdiction, falls within rule text that the Determinations do not address with anything like the same specificity.⁸

In our view, that gap has practical value. It supplies a factual predicate for a conditional approval submission involving trusted-jurisdiction production, and it raises a fair question whether the record supports treating all foreign production identically. We would temper any enthusiasm about the second point. A challenge would have to contend with the statutory structure and the national-security character of the underlying Determinations. Time better spent on preparing and filing request for conditional approval, which in other analogous jurisdictional contexts have been approved relatively quickly (e.g., consumer routers).

Questions the notice leaves open

The waiver's limitation to software and firmware leaves hardware modifications, new model numbers and other changes requiring fresh authorization unaddressed. Producers contemplating product revisions should determine early whether what they have in mind fits within the waiver or will require a conditional approval, because the answer affects development timelines.

What happens after January 2029, is likewise unsettled. OET tied the current relief to a rulemaking that has not yet begun, and for equipment with a long service life, the resulting support-horizon question should factor into planning now rather than later.

There is also an asymmetry in timing that may prove more consequential than the filing deadline itself. Applicants face a fixed date; the reviewing agencies face none. The guidance establishes no deadline by which the DoD or DHS must decide an application, which makes it difficult to sequence a product launch or an investment against the process. The timeline for grant of conditional approvals for drone components and consumer routers may be instructive, but not determinative.⁹

Finally, the treatment of components differs from what the Covered List does elsewhere. The unmanned aircraft system (UAS) entry, for example, reaches "UAS critical components" in terms. The new inverter and advanced robotics categories are drafted at the level of the finished device, as reflected in the definitions. A foreign-produced actuator, sensor or power module may not be separately covered, merely because it is incorporated into a finished robot or inverter. It may nevertheless affect whether the finished product qualifies as a domestic end product, and a component that independently satisfies a covered definition would require separate analysis.

⁸ Notably, [Reuters reports](#), citing several sources, that following the most recent FCC's update to its Covered List, it is expected to exempt many non-Chinese suppliers from the restrictions, as it has done with recent bans on foreign drones and routers. Foreign media, including Reuters, reported that the new bans, while framed as applying to foreign-produced devices generally, "target imports of new Chinese robots and power inverters, seeking to protect the US AI buildout from national security threats and reshore key industries slated for explosive growth."

⁹ See the [official FCC website](#).

Why this action matters beyond these two industries

The Covered List started primarily as a company-based telecommunications instrument, and has since absorbed production-location-based uncrewed aircraft, consumer routers and now inverters and robots. Whatever organizing principle once tied the list to communications equipment has given way to something broader, such as whether a product connects to a network, gathers or moves data, accepts remote updates and can reach infrastructure or physical systems. Both of the new definitions write connectivity into the covered category itself, which suggests the interagency body and the supporting Commission¹⁰ are no longer treating the point as implicit.

The institutional design deserves as much attention as the technology. Congress created a framework for executive branch national-security determinations; agencies with threat expertise make those determinations through an interagency process and a civilian regulator supplies the enforcement mechanism using authority it already possessed.

Equipment authorization, a tool developed to manage spectrum and communications equipment, has become the point of control through which industrial-based policy is administered. A company seeking relief engages with the DoD or DHS, and what it must offer is not merely a demonstration of technical compliance, but disclosure of its supply chain and a commitment to invest domestically (i.e., onshoring).

We expect this pattern to recur. Companies working on connected devices, robotics, energy hardware or infrastructure supporting AI deployment should monitor and analyze interagency and congressional activity as closely as FCC proceedings, because the national-security judgment underlying a Covered List addition will generally have been made through those upstream processes before the FCC is provided with determinations, which are the basis for its update to the Covered List.

Annex: Information required for power-inverter and advanced robotic device conditional approval submissions

The power inverters and advanced robotic devices guidance documents require materially the same information, summarized below. As we describe above, power-inverter submissions may be evaluated by the DoD or DHS; advanced-robotic-device submissions may be evaluated only by the DoD.

Corporate structure – Legal name, jurisdictions of incorporation and principal place of business; the complete ownership structure, including parents, subsidiaries, affiliates and joint ventures; each beneficial owner holding five percent or more; the nationality and country of residence of board members and executive leadership and any foreign-government ownership, control, influence, financing or material support, including any arrangement permitting foreign persons or governments to influence operations, decision-making or access to technology.

Manufacturing and supply chain – A detailed bill of materials; country of origin for every component and for the design of the device; the entities responsible for intellectual-property ownership and software updates; country of origin for onboard software and firmware; the locations of manufacturing, final assembly and testing; a quantitative assessment of supply-chain concentration by country, expressed as a percentage of both total value and production volume; identification of single points of failure, including sole-source suppliers, their countries and contingency arrangements; and a justification for why the device is not currently manufactured in the US.

US manufacturing and onshoring – A detailed, time-bound plan to establish or expand domestic manufacturing; designation of an individual or office responsible for implementation, reporting quarterly to the granting agency; a description of existing US-based manufacturing and assembly, including the percentage of components assembled domestically and current headcount and facilities; and committed and planned capital expenditures, financing and other investments over the next one to five years, with expected timelines, projected hiring, planned facility expansion in square feet and investment amounts. An applicant holding any other Covered List conditional approval must also report progress under those earlier onshoring commitments.

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¹⁰ The more general national security focus of the current Commission is exemplified by the fact that the Chairman has formed a National Security Council at the agency, and appointed a specific National Security Counsel in his office.