

Highlights of [GAO-12-375](#), a report to the Committee on Armed Services, U.S. Senate

Why GAO Did This Study

Counterfeit parts—generally the misrepresentation of parts’ identity or pedigree—can seriously disrupt the Department of Defense (DOD) supply chain, harm weapon systems integrity, and endanger troops’ lives. In a November testimony ([GAO-12-213T](#)), GAO summarized preliminary observations from its investigation into the purchase and authenticity testing of selected, military-grade electronic parts that may enter the DOD supply chain. As requested, this report presents GAO’s final findings on this issue. The results are based on a nongeneralizable sample and cannot be used to make inferences about the extent to which parts are being counterfeited.

GAO created a fictitious company and gained membership to two Internet platforms providing access to vendors selling military-grade electronic parts. GAO requested quotes from numerous vendors to purchase a total of 16 parts from three categories: (1) authentic part numbers for obsolete and rare parts; (2) authentic part numbers with postproduction date codes (date codes after the last date the part was manufactured); and (3) bogus, or fictitious, part numbers that are not associated with any authentic parts. To determine whether the parts received were counterfeit, GAO contracted with a qualified, independent testing lab for full component authentication analysis of the first two categories of parts, but not the third (bogus) category. Part numbers have been altered for reporting purposes.

GAO is not making recommendations in this report.

View [GAO-12-375](#). For more information, contact Richard J. Hillman at (202) 512-6722 or hillmanr@gao.gov or Timothy Persons at (202) 512-6522 or personst@gao.gov.

DOD SUPPLY CHAIN

Suspect Counterfeit Electronic Parts Can Be Found on Internet Purchasing Platforms

What GAO Found

Suspect counterfeit and bogus—part numbers that are not associated with any authentic parts—military-grade electronic parts can be found on Internet purchasing platforms, as none of the 16 parts vendors provided to GAO were legitimate. “Suspect counterfeit,” which applies to the first two categories of parts that were tested, is the strongest term used by an independent testing lab, signifying a potential violation of intellectual property rights, copyrights, or trademark laws, or misrepresentation to defraud or deceive. After submitting requests for quotes on both platforms, GAO received responses from 396 vendors, of which 334 were located in China; 25 in the United States; and 37 in other countries, including the United Kingdom and Japan. Of the 16 parts purchased, vendors usually responded within a day. GAO selected the first of any vendor among those offering the lowest prices that provided enough information to purchase a given part, generally within 2 weeks. Under GAO’s selection methodology, all 16 parts were provided by vendors in China.

All Parts GAO Received Were Suspect Counterfeit or Bogus

Category 1	Category 2	Category 3
Requested authentic part numbers for obsolete and rare parts	Requested authentic part numbers with postproduction date codes (date codes after the last date the part was manufactured)	Requested bogus part numbers
DAA6 → X	DAA6 → X	DAA5 → X
DAA6 → X	IHH1 → X	DAA5 → X
IHH1 → X	MLL1 → X	GDD4 → X
MLL1 → X	YCC7 → X	3MM8 → X
YCC7 → X	YCC7 → X	

X - Suspect counterfeit part X - Bogus part

Source: GAO analysis of independent laboratory test results.

Note: Part numbers shown have been altered from the part numbers used for purchasing.

Specifically, all 12 of the parts received after GAO requested rare part numbers or postproduction date codes were suspect counterfeit, according to the testing lab. Multiple authentication tests, ranging from inspection with electron microscopes to X-ray analysis, revealed that the parts had been re-marked to display the part numbers and manufacturer logos of authentic parts. Other features were found to be deficient from military standards, such as the metallic composition of certain pieces. For the parts requested using postproduction date codes, the vendors also altered date markings to represent the parts as newer than when they were last manufactured, as verified by the parts’ makers. Finally, after submitting requests for bogus parts using invalid part numbers, GAO purchased four parts from four vendors, which shows their willingness to supply parts that do not technically exist.