
gumstix connex-xm and connex-xm-bt recall

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Description of the problem

gumstix, inc. has recently discovered that a number of connex xm boards, shipped in May and June of 2005, had a hardware fault. This fault causes intermittent crashes or hangs and overheating. This problem is particularly noticeable when the connex xm or xm bt is drawing a lot of power, such as when the CPU is running at maximum utilization, or when many different controllers on the CPU are in simultaneous use. One component on these connex xm and xm bt platforms was incorrectly placed by the manufacturer, and has been causing this problem.

gumstix is shipping replacement connex xm and connex xm bt platforms to all affected customers and recalling all the faulty boards. Approximately thirty customers are believed to be affected by this problem. Each will be individually notified in addition to this general notice to the gumstix mailing list.

How can I tell if I'm affected by this?

The following boards are likely to be affected:

- 400MHz gumstix connex XM
- 400MHz gumstix connect XM BT

No other boards are affected. The manufacturing error that caused this recall was isolated to one manufacturing run producing this set of connex xm and connex xm bt boards. Our testing has shown that the 4MB connex platforms and the basix platforms (xm and non-xm) are not affected by this recall.

The pictures below highlight the suspect component, and illustrate its proper and improper positioning. Please verify whether your connex xm or connex xm bt is good or bad with a visual inspection.

What should I do if I have a faulty connex xm or connex xm bt?

Over the next few days, gumstix will be sending out replacement packages to all customers with affected connex xm and connex xm bt platforms. Each package will contain replacements for as many units as have been purchased by that customer, as well as a return pre-paid envelope, with instructions, for returning the affected boards to gumstix. The package will be sent to the shipping address of the customer's original order. Customers are asked to follow the instructions that can be found inside their package.

We are shipping new connex xm and xm bt platforms, then requesting the returns to be shipped back rather than having customers return the boards for an exchange. This is our attempt to minimize any interruptions that this recall may cause in our customer's development projects and plans.

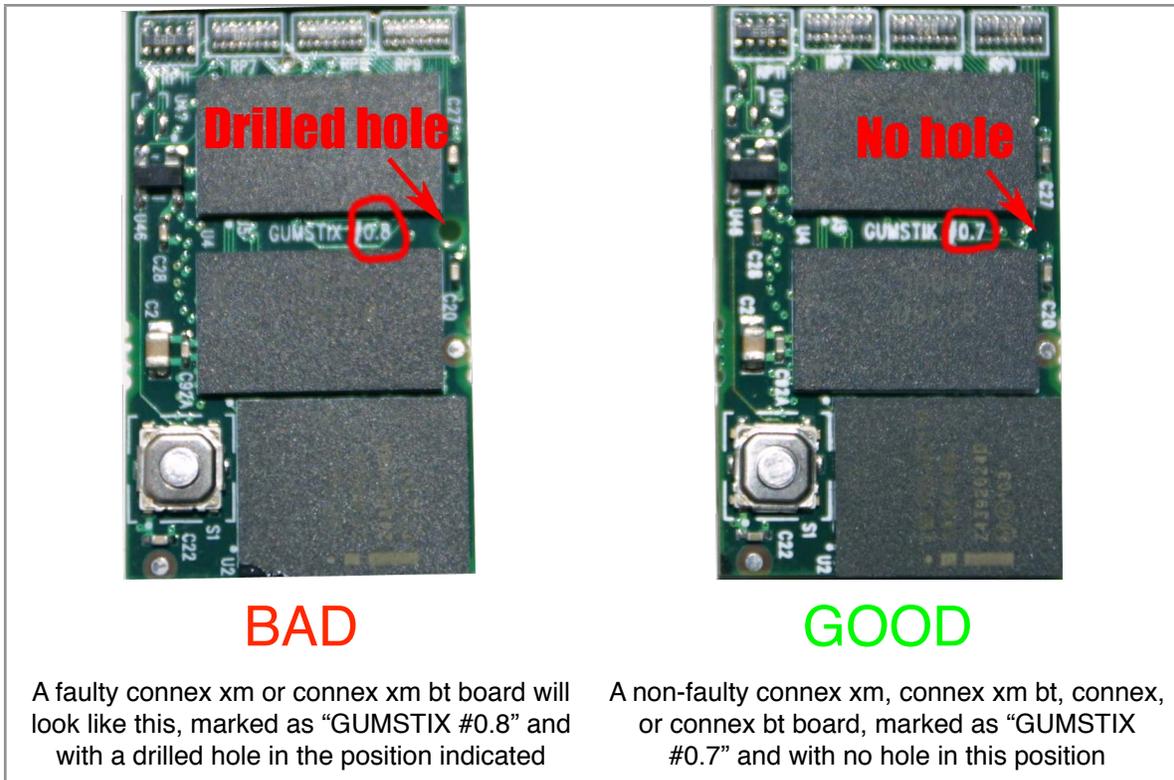
Is there anything that customers can do, while waiting for their new boards to arrive, to alleviate the problems?

The problems seem to be less severe when the supply voltage to the connex xm or xm bt is reduced. The standard gumstix power supply is rated at 5V, but the connex can accept anything from 3.8V to 6V. Supplying 4.2V seems to reduce the problem substantially on those platforms that gumstix has tested.

However, even under these conditions, the boards may still crash or hang. If you need to continue development work on your existing board(s) before the replacement connex platform (s) arrive, you should be able to do so if you have a power supply capable of reducing the voltage below 5V.

Identifying potentially bad boards

There are 2 sets of visually-identifying characteristics of the connex xm and connex xm bt platforms which are the subject of this recall. First, the version number of the board and the presence of a drilled hole:



Second, the incorrectly placed component can be seen to be rotated incorrectly:

