



Destron Fearing™

## **HDX vs. FDX FAQ's**

### ***How does Destron Fearing have access to HDX technology, I thought this was exclusive to Allflex?***

Recent chip developments have provided Destron Fearing with access to the HDX technology, and we were quick to take advantage in order to provide the market with a second source for HDX.

### ***Where is the product sourced?***

We do not share our supply sources. We have an extensive vendor qualification process, and have ensured that the supply is from a quality supplier in Europe.

### ***What is the primary difference between HDX and FDX?***

The difference is in how the tag communicates with the reader. Both technologies are passive, which means that the reader must *excite* the tag in order to activate it. In HDX, the In HDX, which represents “Half Duplex”, the *excite* signal is on for half of the time. Whereas FDX, which represents “Full Duplex”, the *excite* signal is on all of the time.

### ***Does one technology perform better than the other?***

It depends on the application. In some applications one will perform better than the other, but it really depends on the installation. While FDX tends to be more resistive to environmental noise, and can be more robust around metal, it can be affected by certain environmental frequencies. In those situations, HDX may be found to perform better than FDX, but without evaluating the installation environment, it can be difficult to determine which is best applied in advance.

### ***After all of these years, why is Destron Fearing offering HDX technology today?***

With the recent developments in RFID chips, Destron Fearing has been given the opportunity to offer the market with a second source for HDX tags. This was not the case in previous years.



***I am told that one technology can read faster than the other.***

Again, this can be a product of the environment. Generally, FDX has a quicker read time, and this is a function of the fact that the *excite* frequency is always on with FDX. Therefore when a tag enters the read field, with FDX there is no waiting for the tag to turn on. It does so immediately upon entering, whereas HDX is only on for half of the time, and it is possible that the tag could enter the field during a period in which the *excite* signal is turned off. But, as we have said before, some environments can cause one or the other to perform more quickly.

***Is one technology easier or less costly to install?***

In applications where multiple readers are required, FDX can be less expensive to install. Since the *excite* signal in HDX is on for only half of the time, multiple readers require synchronization. Basically, all of the readers need to have their *excite* signals turn on and off at the same time, otherwise the signal can cause interference, affecting the ability for the tag to be read.

***I hear that that one technology is more reliable than the other.***

Both are reliable technologies, and there is little noticeable difference between the two. While FDX does require fewer components to manufacture the tag, the packaging of the product is the key to insuring reliability.