



Higgs™ EC Enhanced TID Structuring

Higgs EC

Overview

Combined with marked improvement in sensitivity and stability, Alien Technology's Higgs™ EC integrated circuit includes a reconfigured and enhanced TID structure. This allows for extended serialization and traceability compared to traditional RFID ICs.

Enhancements

The new 48 bit UTID of Higgs EC contains the same SGTIN serial number in the lower 38 bits of the TID as well as the EPC.

This evolution facilitates customers to migrate from **Higgs-3 and Higgs-4 and from non-Alien IC products**. As with all Higgs-EC products, the EPC contains the SGTIN that is derived from the TID. The changes made make it simple to copy the same 38-bit data (**from any Alien Higgs IC**) from the same TID location and paste these into the EPC if you desire to recreate the EPC SGTIN. In early Higgs-EC's these bits were not in the same location as Higgs-3 and Higgs-4.

Higgs-EC is now aligned with the industry in using the XTID word in the TID. From a user perspective this word can be ignored but the fact it is present means there is one less serialized word in the UTID (as it is used by the XTID). There are several benefits of this including that Higgs-EC 38b serial number is located and sized the same as other IC's currently within the market.

This is best visualized below. You will note the SGTIN in the EPC bank is unchanged. The UTID in the Higgs-EC is now 48b (the same as our competitors) and **aligned in the same memory locations as Higgs-4**. As customers only usually copy 38 bits (or 48 bits to do a word aligned read), **there are no changes required in customer code from Higgs-4 to use Higgs-EC**.

