Cutting the Fat from Feed Management

Digi-Star

Digi-Star is dedicated to the development, production, and marketing of electronic weighing systems for the global agricultural market. Digi-Star also manufactures specialized transducers for precision farming applications, proprietary controllers and monitors for original equipment manufacturers. Started in 1981, Digi-Star is located in Fort Atkinson, Wisconsin.

Challenge

Digi-Star wanted a more convenient, easy-to-use way for farmers to upload and download data. Digi-Star had formerly manufactured a “hand-grenade” shaped portable memory device but found setting up production to be too costly. Digi-Star’s new data transport device needed to be:

- Easy for the farmer to use
- Rugged and reliable to stand up to the harsh feed-lot environment
- Fully engineered to reduce R&D costs and time-to-market
- Available and supported long-term to avoid expensive re-design and implementation costs
Solution
Digi-Star selected the Datakey SFK1Mb key for its large memory capacity, rugged and reliable construction, and off-the-shelf availability. The Digi-Star Indicator is mounted with the feed mixer on a truck or trailer. The user inserts the SFK1Mb key at the start of the mixing cycle to upload the “recipe.” After dispensing the feed, the user then inserts and turns the SFK1Mb key to write the actual feed mixture attained back to the key. Digi-Star provides a custom PC docking station to interface the SFK1Mb key to a standard PC for uploading and downloading data. DigiStar also provides DTU Software (Data Transfer Utilities) and TMR Tracker® software for a complete feed management solution. Datakey SFK series keys feature industry-leading solid over-molded construction, rugged wear-resistant exterior and long-lasting contacts. Unlike other cards and carriers that can easily fail, the key’s body protects the embedded memory chip from physical damage and harsh environmental influences. They can be sterilized, dropped in the mud, washed, exposed to electromagnetic fields or chemicals—and they’ll still work. The feed-lot environment is especially hard on electronics, so this is a major vote of confidence in Datakey products.

Fully Engineered
The SFK1Mb key inserts into a mating KC4210PCB key receptacle designed into the bottom of the Digi-Star unit. The Datakey KC4210PCB key receptacle is a high-cycle life mating receptacle that offers tactile confirmation when a key is inserted and turned. There is also a LOFO contact that may be used to protect the host bus by ensuring that key has made secure contact with the receptacle before any signals are transmitted.

Digi-Star chose Datakey
Digi-Star chose a Datakey serial memory device because of the brand's long history of providing a rugged product that could withstand the harsh farm environment. The familiar form factor of the key helps to increase users’ comfort level, shortening any user adjustment period. Additionally, the company’s 35+ years of experience in serial memory devices and fully-engineered solutions decreased Digi-Star’s R&D costs and time-to-market while providing a product that DigiStar know will be available and supported for the long-term.