

## The Best Surveillance Solution in a High-Interference Environment

Site Name	Motor Manufacturing Factory
Country/City	Miaoli, Taiwan
Industry	Factories
Solution	DTV Digital FHD Surveillance System DTV 1080P Camera * 12 pcs DTV DVR * 1 set
Solution Provider	A-Tec Subsystem Inc.
Reasons of Adoption	<ul style="list-style-type: none"><li>■ Cable Cost Saving</li><li>■ Full-HD Video</li><li>■ Immune to Interference</li></ul>



### CUSTOMER NEEDS AND PROBLEMS

In May 2014, a motor manufacturing factory wanted to install surveillance system, including one DVR and twelve cameras. The heavy-current equipment in the factory introduced serious electro-magnetic interference. Therefore, immune to interferences no doubt was the client's top consideration when selecting the surveillance solution.

The client had asked around and finally contacted DTV solution providers -- A-Tec Subsystems, Inc. One of DTV products' characteristics is exactly "immune to interference". For manufacturers or system installers who are only familiar with analog or IP products, it may be difficult to imagine the existence of products which can deal with interference by nature, so they often make challenges. Fortunately, the products speak themselves. Once people try DTV out, they find it offers clear images even under difficult environments just as it is claimed.

### CUSTOMER BENEFITS

It is well known that coaxial cable is better than network cable in an environment full of interference. Among all the coaxial-cable based surveillance systems, analog systems, no matter legacy CCTV or late AHD, are very sensitive to EM interference, resulting in unstable video quality. Another coaxial-cable based systems, DTV systems, owing to its advanced digital modulation technology, are less sensitive the EM interference. DTV is indeed the best answer to high-interference environment.

DTV products also support serial connection. The output from multiple cameras can be combined in one cable, which can greatly reduce installation efforts. In fact, it took only two days to finish this case. While the cable cost is saved, the video quality is reserved. For clients, DTV provides saving in both time and cost.

The maintenance of DTV products is also beneficial. The degradation is inevitable for any kind of cable. As time goes by, the impedance of cable changes, resulting in signal attenuation. For analog system, the attenuation directly causes low video quality. For digital system, the effect is much less severe. From 2014 until now, the video quality change is almost NOT noticeable.



Figure 1. Screen-capture of real-time monitoring screen.



Figure 2. An event fully captured by the surveillance system. The recording helped to recover what was happening.