



INDEPENDENT STUDY

IDH provides independent confirmation that EP labels are the best on the market



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The Institute for Distribution and Trade Logistics, based in Dortmund, Germany, has been conducting research into the efficiency of different EAS solutions. Checkpoint's EP Labels were among the products tested. *Point of View* spoke to Matthias Grzib, responsible for the execution and evaluation of EAS systems, about tests on Checkpoint's state-of-the-art EAS solutions.

Tell us about the IDH and what you do there.

IDH is an independent research institute mainly focused on testing the applicability of Auto ID Systems (i.e. RFID, Barcode, OCR, 2D-Code) in supply chain processes. We carry out workshops that provide assistance for the implementation of these technologies into existing supply chain systems, and study aspects of different implementations, like costs and benefits, return on investment and feasibility.

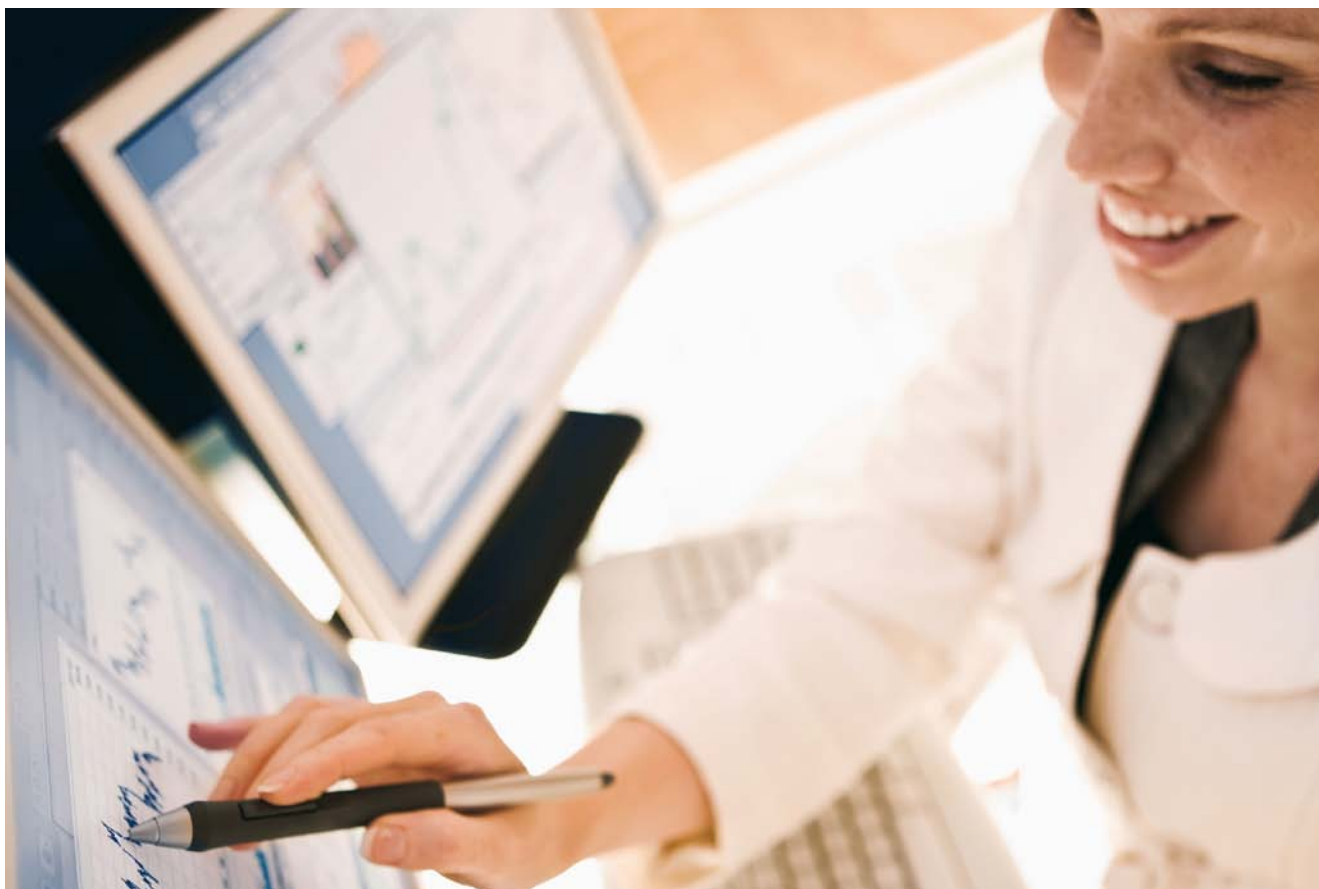
We are not bound to any provider: We're neutral so we can provide retailers with independent advice about their technological

needs. The people that consult with us include the world's biggest retail companies and their solutions providers.

IDH was one of the first independent institutes to conduct tests on Electronic Article Surveillance systems and, since then, has played a vital role in the development and further enhancement of guidelines for the retail industry.

What tests have you been conducting?

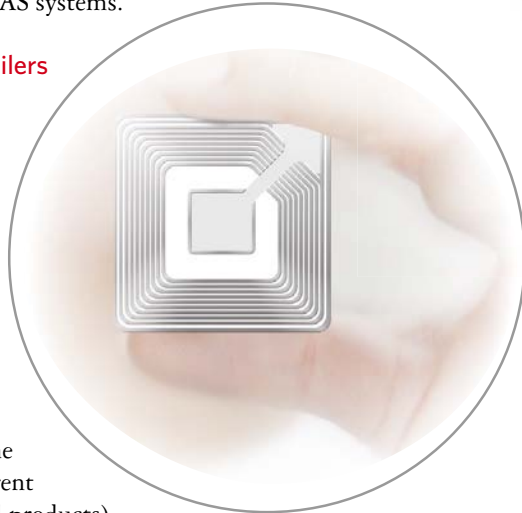
We have been testing different kinds of EAS systems using different technologies – RF, AM and EM. We have been analyzing the efficiency



of different EAS tags against benchmarks established in the VDI 4470 (Verein Deutscher Ingenieure), –Anti-theft systems for goods, Deactivation devices, Inspection guidelines for customers–. This is an industry-accepted guideline on the characteristics of EAS systems.

What kind of informations do retailers need to know about their EAS system?

The main issues are deactivation height and reliability (making sure that tags are efficiently deactivated to avoid unwanted alarms), detection rates (the distance at which a tag is activated), detection according to aisle width, and overall quality (the percentage of tags that actually work). They also want to check if the tags can be applied reliably to different types of products (e.g. metal or food products) without problems.



What criteria did you use to test Checkpoint's EP Labels?

We divided an area between two antennas into 15 different points at three different heights and five different horizontal distances within the gate. The first horizontal position (for three reference points) was in the middle of the gate. Then every 30 cm (about one foot) (to both sides of the gate) another three reference points were placed. This was done because the gate width that is requested by our clients sometimes varies. Aside from using tags attached to wooden rods, we also checked detection on tags attached to products. This allows us to check de-tuning issues and the specific usability for different kinds of products.

Which Checkpoint tags did you test?

We focused mainly on the 410 and 710 EP labels. We checked three different sizes: the 40x40 mm, the 38x32 mm, and the smaller 22x47 mm, label which is ideal for protecting products like lingerie or health and beauty products and for incorporating into price tags.

What results did you get?

We tested using Evolve antennas, and the results were outstanding. At a range of 200 cm (6.561feet) we achieved a detection rate of 95 percent or better and at 180 cm (5.905), detection levels already reached 99.5 percent. We also compared detection rates of EP labels with different antenna systems and we found that, compared to previous generation RF, Evolve produced results that were 20-40 percent

better. When this generation of RF is introduced across the market we can expect detection rates to go up significantly.

Do you have any advice for retailers when selecting an EAS system?

Today, many retailers are focusing on cost, which means they could be sacrificing quality. I would recommend that they don't use tags with lower detection rates and a higher risk of inactivity. Retailers need to decide carefully which tags best represent their needs in terms of factors like detection performance, size, etc.

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Matthias Grzib

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EP labels are designed to be as small and unobtrusive as possible. Did you find the detection rate significantly lower with smaller labels?

Of course size does matter, but less than we expected. We tested the smallest 22x47 mm EP label using the Evolve antenna and found the detection rate was 90 percent of a label twice the size. Therefore, there was only a 10 percent lower detection rate with a label that was 50 percent smaller. This means that, thanks to EP's enhanced performance, detection rates are not directly equivalent to size.■