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With RFID, Media Management is a brand new book

What do Munich Public Library in Germany, Jimei University Library in China and Salt Lake County Library Services in Utah have in common?



They're among the thousands of libraries that have used UPM Raflatac HF tags and inlays to track media, bringing new levels of efficiency and visibility to their operations. Early adopters of RFID have seen how this innovative technology helps libraries safeguard and manage books and digital media, streamline critical processes, enhance the customer experience and meet a growing demand for services.

UPM Raflatac is the global number one producer of HF inlays, with more than 350 million in circulation in libraries around the world. The company has spent more than 10 years developing and refining its product portfolio, creating partnerships with market leaders and helping libraries reap

impressive operational and business gains from implementing RFID technology. Even if you haven't heard of UPM Raflatac, chances are excellent that you're using their products – or know a library that is.

UPM Raflatac partners with system integrators who design and implement RFID systems that automate critical processes. As cost-effective high performers, the company's HF inlays are appropriate for library installations both large and small. In addition, UPM Raflatac's products are backed by a lifetime guarantee and can be disposed of in conventional waste streams without harming the environment.

"We're proud to partner with UPM Raflatac and recommend their RFID tags with

confidence to our library customers," says **Mike Monk**, Vice President, EnvisionWare. "We know that UPM Raflatac HF tags are high quality, which personifies an expectation of the reputation we have built our business upon."



Q&A

with UPM Raflatac



Question: How does UPM Raflatac ensure the quality and longevity of HF inlays?

UPM Raflatac takes product development and testing very seriously. We operate state-of-the-art production facilities in the United States, Europe and China. We've certified our RFID factories in Finland and the USA to the ISO 9001:2000 Quality and ISO 14001:2004 Environmental Management System standards. Our products, which include EPC-certified Class 1 Gen2 tags and inlays, reflect the latest technology breakthroughs and industry standards. To make sure we're continuously raising the bar, we use market demands, customer needs and our own quest for excellence to drive rigorous product testing at our central quality laboratory in Tampere, Finland.

"UPM Raflatac has become the leading specified HF RFID inlay producer in the world because of our commitment to innovation and customer service," says **Shaun Stigall**, Business Development Manager, Media Management & Transportation, RFID. "System integrators use our tags and inlays more often than any other manufacturer because of our ability to deliver quality and performance with every shipment."

UPM Raflatac HF inlays must pass performance and accelerated aging tests at 85 degrees Celsius and 85 percent relative humidity. We have also implemented an additional 15-week test at 65 degrees Celsius and 95 percent relative humidity, which is seen

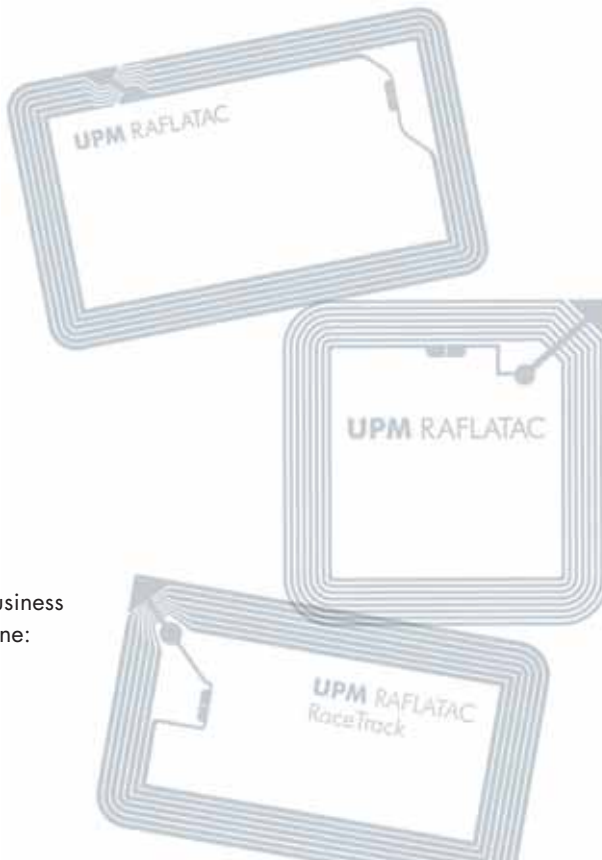
If you need help finding a system integrator, please contact **Shaun Stigall**
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RFID & Media Management

RFID optimizes critical library operations including:

- Improved circulation and inventory visibility
- Superior media security
- Automated check-in and check-out
- Faster item reading and processing
- Increased staff efficiency

To learn how UPM Raflatac has helped libraries in the United States, Europe and Asia improve their business processes, please read our RFID success stories online: <http://www.upmraflatac.com/rfidsuccess>



- PROTOCOL
- FREQUENCY
- ANTENNA MATERIAL
- ANTENNA SIZE
- DIE-CUT SIZE
- DELIVERY FORMAT
- ADHESIVE
- MEMORY
- SECURITY
- APPLICATION

Unbalancing test:

as a benchmark for USA libraries. The results confirm our own temperature and humidity accelerated age testing which was established several years ago. Our products come with a lifetime guarantee, providing exceptional performance for the 10 years the average library book is in circulation.

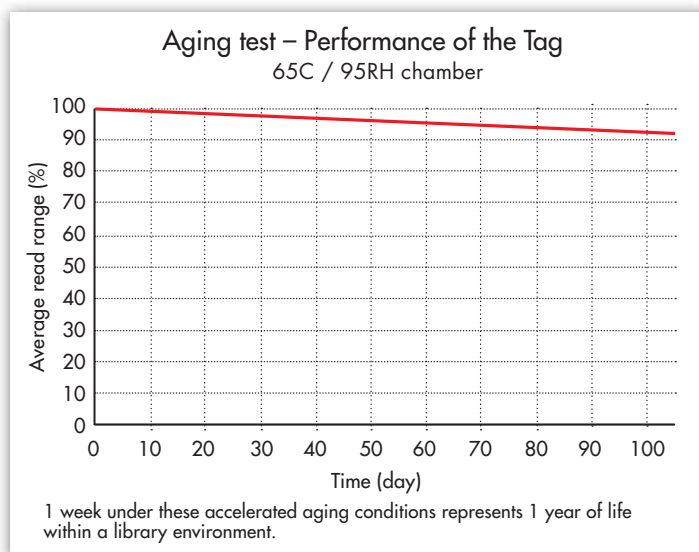
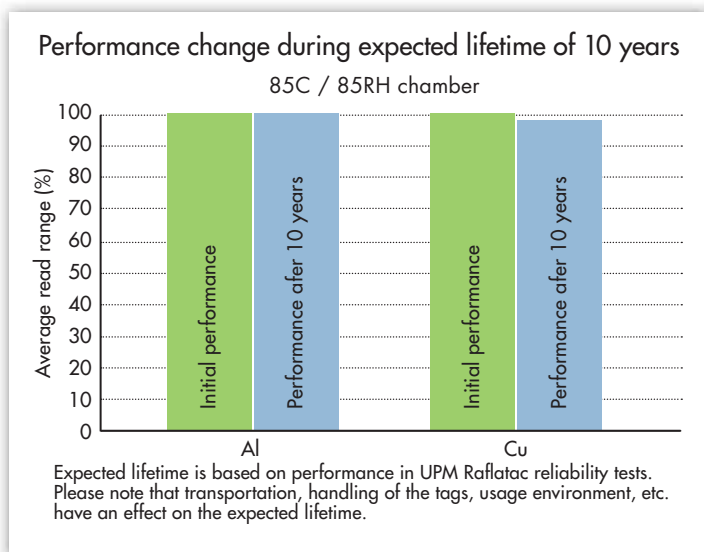
“UPM Raflatac goes above and beyond with its testing to ensure that the company’s HF tags provide outstanding quality and performance in the rugged usage conditions libraries experience,” says **Gary Kirk**, Executive Director, TechLogic. “That’s important, because it gives our customers confidence that they are making the absolute best choice for their library applications.”

Question: How can I obtain UPM Raflatac HF RFID tags for my library?

UPM Raflatac works with a wide array of leading system integrators to supply libraries around the world with HF RFID inlays. Simply ask

your system integrator partner to quote and supply UPM Raflatac HF RFID tags for your library installation. Our RFID product range for Media Management includes the 47 x 47 mm square, the RaceTrack (45 x 76 mm), the 50 x 82 mm rectangle and the BullsEye (37 mm round), providing a variety of options for your media management needs. Our products for these applications are aluminum – all are offered with a paper face – and are designed to withstand rough handling and bending while remaining applicator and printer friendly.

“We value our partnership with UPM Raflatac and recommend their tags to our library customers,” says **Shai Robkin**, President and Chief Executive Officer, Integrated Technology Group. “With the experience of having executed dozens of installations using UPM Raflatac tags over the course of the last four years, we are confident that our RFID solutions will meet our customers’ objectives without exception.”



UPM Raflatac RFID products for Media Management

47 x 47 mm	RaceTrack 45 x 76 mm	50 x 82 mm	BullsEye 37 mm
ISO 15693	ISO 15693	ISO 15693	ISO 15693
13.56 MHz	13.56 MHz	13.56 MHz	13.56 MHz
Aluminum available	Aluminum available	Aluminum available	Aluminum available
47 x 47 mm 1.850 x 1.850"	45 x 76 mm 1.772 x 2.992"	50 x 82 mm 1.969 x 3.229"	Round 37 mm 1.457"
50 x 50 mm 1.969 x 1.969"	49 x 81 mm 1.930 x 3.189"	54 x 86 mm 2.126 x 3.386"	Round 40 mm 1.575"

- Wet (film face + adhesive), Dry (film face), Tag (paper face + adhesive)
- Adhesive is non-migratory, non-staining and solvent-free. It contains no migratory oils or resins. The pH value is neutral 5-7.
- 1 kbit standard, optional up to 10 kbits available
- High security depending on the IC and EAS or AFI options available
- Applicator and printer friendly products designed to withstand rough handling and bending
- 100% inspected tags with delivery format optimal for both manual and automatic application
- 100% performance for security and anti-theft purposes
- IC position ideal for different CD player clamping areas

CD-ROM/yellow book, CD-Audio/red book, DVD-read only, CD-recordable
The BullsEye has passed the required usage tests for the above CD/DVD applications

Going global: UPM Raflatac gets close to its RFID customers



Mills River, North Carolina.
Jyväskylä, Central Finland.
And Guangzhou, China. Although
the geographic locations couldn't
be more diverse, these three

cities have something in common: They all boast state-of-the-art UPM Raflatac RFID manufacturing facilities where highly skilled technicians oversee the production of millions of HF and UHF RFID tags and inlays for diverse industry applications.

"UPM Raflatac has developed a best-in-class production network to increase capacity and serve the needs of its regional customers," says **Shaun Stigall**, Business Development Manager, Media Management & Transportation, RFID, UPM Raflatac. "Our global factories provide system integrators and libraries with the full product mix and rapid delivery time frames they need to meet their business requirements. We've made significant investments in our production capabilities to help our customers win in the marketplace."

And that message is one UPM Raflatac customers have definitely received. When Libramation decided to enter the RFID industry back in 2001, the company considered only one business partner: UPM Raflatac. "We wanted to join forces with the true market leader," says **Frank Mussche**, President, Libramation. "We knew UPM Raflatac's reputation for developing long-lasting relationships and believed that they would work the most closely with us to help us become successful. Our decision has proven to be a fateful one, and we know that this partnership will be one that goes the distance."



GLOBAL INSTALLATIONS: Who is using RFID and why?

Europe

BACKGROUND Munich Public Library and its 25 district libraries process more than 49,000 items every day.

CHALLENGE To safeguard library books, streamline check-in and -out processes and provide 24-hour service to the citizens of Munich.

SOLUTION The library tagged 1.5 million items with UPM Raflatac's BullsEye and RaceTrack HF tags.

RESULT The installation has led to improvement in areas such as book identification, sorting, inventory control, self check-out and theft prevention. Furthermore, librarians can now spend their time on more important tasks, like assisting customers. In other words, everyone benefits.

Asia

BACKGROUND Jimei University Library in Xiamen, China, has a total collection of 2,119,700 volumes and serves over 22,000 full-time students.

CHALLENGE To automate the lending and return of library items, reducing line wait times and theft.

SOLUTION The library has installed an RFID system and implemented a conversion program.

RESULT The new RFID system has not only reduced line wait times and theft as hoped, it has also made sorting library items faster so that books can be returned to the shelves more rapidly. Passing an RFID reader along the bookshelves makes the inventory process quicker and much easier.

Raflatac Express July 2009

The UPM Raflatac Customer Newsletter

Published by UPM Raflatac, Inc.

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For more information on our products,
contact your nearest UPM Raflatac representative.
Visit www.upmraflatac.com for contact details.