



UW RFID Conference Lessons Learned June 2005

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Why is RFID a challenge?

- New Mandates
- New Technology
- New Business Processes
- Limited Resources
- Limited Capital Expenditures
- Majority view as a cost
- Limited “how we did it” articles due to deployments viewed as competitive IP or fear of exposing company to “consumer privacy” issues
- Lack of “know-how”
 - Inexperienced end user community
 - Inexperienced technology community

We are at the stage where the Bar Code industry was 20 years ago...

Strategy/Solution must be:

■ Scalable

- » ability to easily add SKU's
- » ability to add your DC's or retailer DC's

■ Flexible

- » Gen2 migration path
- » ability to fully integrate to IT infrastructure in future
- » ability to process and add additional data
 - upstream and more granularity
- » ability to provide retailers with unique data formats

Don't wait, get started...NOW!



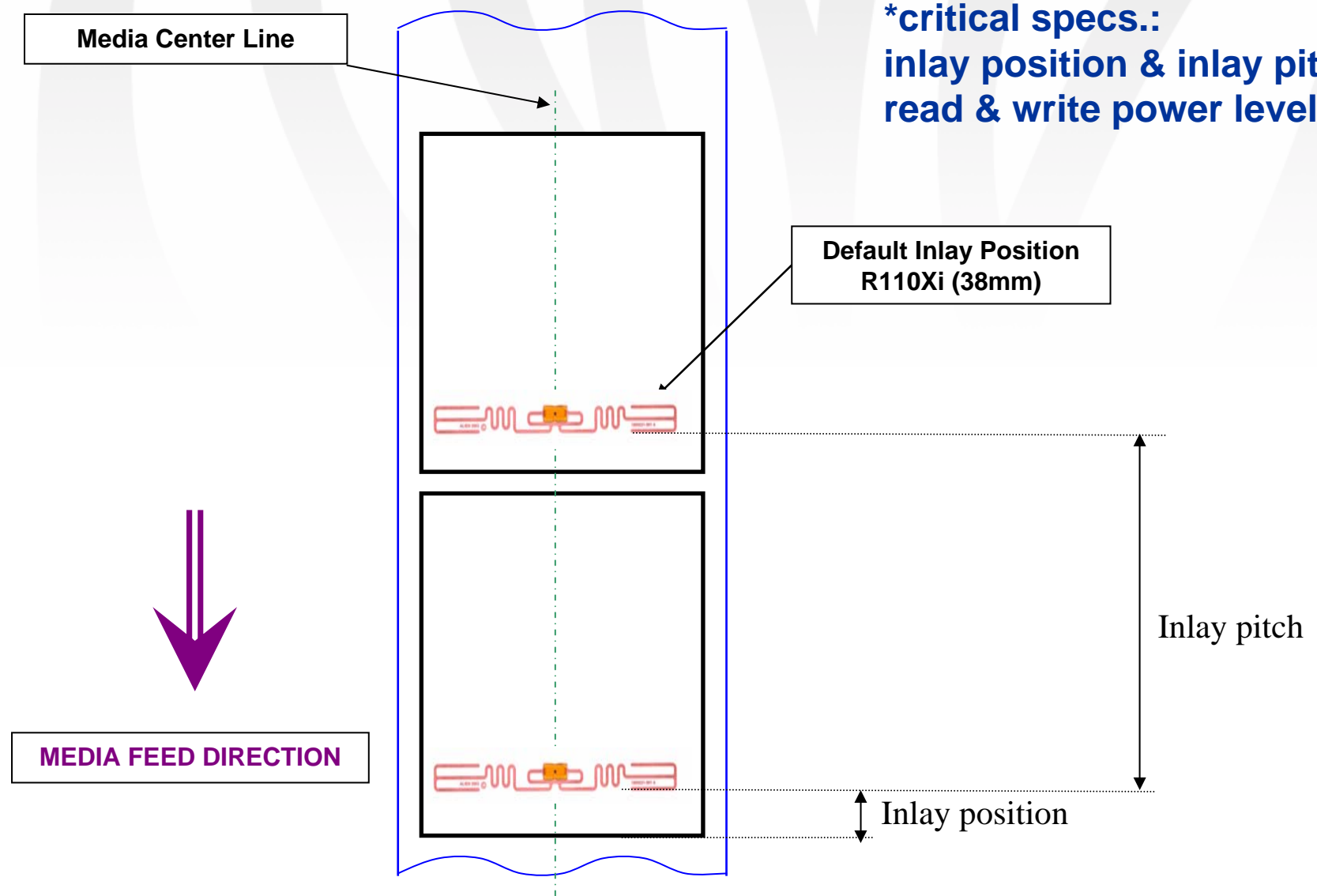
- RFID team (IT, Operations, Customer Support)...*need executive sponsor*
- assemble a roadmap
- know your mandate(s), the standards (EPC), the technology
- don't be a Lone Ranger, get the right people on the bus!
 - » Leverage vendors, resellers, integrators and RFID organizations/workgroups to learn from the initial adopters...can provide insight re. what will take you exponentially longer to learn on your own...
 - » contact/visit referenced deployments
- collaborate with non-competitor

- Majority of “write” yield rates are 90%-99%
- What effects yield rates?
 - » Inlay/chip designs
 - » RFID label converters are at various stages of learning curve
 - » Reader manufacturers continue to optimize
 - » Tag location within label
- Lack of “know-how”
 - » Inexperienced end user community
 - » Inexperienced technology community



Critical Inlay positions are “Printer Unique”

***critical specs.:**
inlay position & inlay pitch,
read & write power levels



Printer/encoder Recommendations



- RFID Gear: Gen2 investment protection
- Printers/Smart Labels: prior to “production purchase” of labels, validate and optimize
- Handle and store labels with care!
- Train those who “touch” gear
- Firmware Revisions
 - » confirm software providers (Label Design, Middleware, Compliance Packages, etc.) have latest printer and reader drivers integrated
 - » check for hardware and software revisions each month

- Packaging
 - » liquid, metal, metal foil, microwave sleeves are possible
- No smart labels on top/bottom of cases
- No readers mounted next to printer/encoders
- Palletizers increase read rates dramatically
- Start small, think Big
 - » be aware of automated label applicators for future deployment
- What is the baseline RF environment?
 - » archive spectrum analyzer data
 - legacy wireless networks
 - 2-way radios
 - bug zapper

Thank You



Questions



- » Zebra RFID Resource Center
 - www.rfid.zebra.com

- » “Tips for RFID Smart Label Printing/Encoding”
 - please contact Paul Baboian, 847-793-2627

- » EPC, RFID Standards organization
 - www.epcglobalinc.org

- » UW RFID Workgroup
 - www.uwebc.org/workgroups/RFID