ISO/IEC JTC 1 N 9458

2008-12-24

ISO/IEC JTC 1
Information Technology

Document Type: Summary of Voting

Document Title: Summary of Voting on JTC 1 N 9270 – ISO/IEC DTR 24729-3, "Information technology -- Radio frequency identification for item management -- Implementation guidelines -- Part 3: Implementation and operation of UHF RFID Interrogator systems in logistics applications"

Document Source: JTC 1 Secretariat

Reference:

Document Status: As per the results of this ballot, the DTR has passed. SC 31 is instructed to review the comments received, prepare a disposition of comments, and if necessary, a revised text for submission to ITTF for publication.

Action ID: Information

Due Date:

No. of Pages: 10

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Result of voting

Ballot Information:	
Ballot reference:	JTC001-N-9270
Ballot type:	DTR
Ballot title:	**ISO/IEC DTR 24729-3, "Information technology -- Radio frequency identification for item management -- Implementation guidelines -- Part 3: Implementation and operation of UHF RFID Interrogator systems in logistics applications"**
Opening date:	2008-09-20
Closing date:	2008-12-20
Note:	**This document is circulated to JTC 1 National Bodies for a 3 month DTR ballot. National Bodies are asked to vote and submit their comments via the on-line balloting system by the due date indicated.**

Member responses:	
Votes cast (24)	Belgium (NBN) Canada (SCC) Czech Republic (CNI) Denmark (DS) Ecuador (INEN) Finland (SFS) France (AFNOR) Germany (DIN) India (BIS) Ireland (NSAI) Italy (UNI) Japan (JISC) Korea, Republic of (KATS) Malta (MSA) Netherlands (NEN) New Zealand (SNZ) Nigeria (SON) Norway (SN) Singapore (SPRING SG) Slovenia (SIST) Spain (AENOR) Switzerland (SNV) United Kingdom (BSI) USA (ANSI)
Comments submitted (0)	

Votes not cast (16)	Algeria (IANOR) Australia (SA) Azerbaijan (AZSTAND) China (SAC) Côte-d'Ivoire (CODINORM) Iran, Islamic Republic of (ISIRI) Jamaica (BSJ) Kazakhstan (KAZMEMST) Kenya (KEBS) Malaysia (DSM) Pakistan (PSQCA) Philippines (BPS) Saudi Arabia (SASO) South Africa (SABS) Uruguay (UNIT) Venezuela (FONDONORMA)

Questions:	
Q.1	"Does your National Body approve the attached DTR to go forward to publication?"
Q.2	"If you approve the DTR Text with comments, would you please indicate which type ? (General, Technical or Editorial)"
Q.3	"If you Disappove the Draft, would you please indicate if you accept to change your vote to Approval if the reasons and appropriate changes will be accepted?"

Answers to Q.1: "Does your National Body approve the attached DTR to go forward to publication?"		
13 x	**Approval as presented**	**Canada (SCC)** **Czech Republic (CNI)** **France (AFNOR)** **India (BIS)** **Ireland (NSAI)** **Italy (UNI)** **Japan (JISC)** **Korea, Republic of (KATS)** **Nigeria (SON)** **Norway (SN)** **Singapore (SPRING SG)** **Slovenia (SIST)** **United Kingdom (BSI)**
8 x	**Abstention**	**Belgium (NBN)** **Denmark (DS)** **Ecuador (INEN)** **Finland (SFS)** **Malta (MSA)** **New Zealand (SNZ)** **Spain (AENOR)** **Switzerland (SNV)**

3 x	Approval with comments	Germany (DIN) Netherlands (NEN) USA (ANSI)
0 x	Disapproval of the draft	

Answers to Q.2: "If you approve the DTR Text with comments, would you please indicate which type ? (General, Technical or Editorial)"		
21 x	Ignore	Belgium (NBN) Canada (SCC) Czech Republic (CNI) Denmark (DS) Ecuador (INEN) Finland (SFS) France (AFNOR) India (BIS) Ireland (NSAI) Italy (UNI) Japan (JISC) Korea, Republic of (KATS) Malta (MSA) New Zealand (SNZ) Nigeria (SON) Norway (SN) Singapore (SPRING SG) Slovenia (SIST) Spain (AENOR) Switzerland (SNV) United Kingdom (BSI)
2 x	All	Germany (DIN) USA (ANSI)
1 x	General	Netherlands (NEN)
0 x	Editorial	
0 x	Technical	

Answers to Q.3: "If you Disappove the Draft, would you please indicate if you accept to change your vote to Approval if the reasons and appropriate changes will be accepted?"		
24 x	Ignore	Belgium (NBN) Canada (SCC) Czech Republic (CNI) Denmark (DS) Ecuador (INEN) Finland (SFS) France (AFNOR) Germany (DIN) India (BIS) Ireland (NSAI) Italy (UNI)

	Japan (JISC) **Korea, Republic of (KATS)** **Malta (MSA)** **Netherlands (NEN)** **New Zealand (SNZ)** **Nigeria (SON)** **Norway (SN)** **Singapore (SPRING SG)** **Slovenia (SIST)** **Spain (AENOR)** **Switzerland (SNV)** **United Kingdom (BSI)** **USA (ANSI)**
0 x	**No**
0 x	**Yes**

Comments from Voters		
Member:	Comment:	Date:
Germany (DIN)	***Comment File***	2008-12-17 09:33:29
CommentFiles/Germany(DIN).doc		
Netherlands (NEN)	***Comment***	2008-12-08 09:31:45
see attached file with NL comments		
Netherlands (NEN)	***Comment File***	2008-12-08 09:31:45
CommentFiles/Netherlands(NEN).doc		
USA (ANSI)	***Comment***	2008-12-17 20:47:55
Attached		
USA (ANSI)	***Comment File***	2008-12-17 20:47:55
CommentFiles/USA(ANSI).doc		

Comments from Commenters		
Member:	Comment:	Date:

Template for comments and secretariat observations Date:2008-12-24 Document:

1	2	(3)	4	5	(6)	(7)
MB[1]	**Clause No./ Subclause No./ Annex** (e.g. 3.1)	**Paragraph/ Figure/ Table/ Note** (e.g. Table 1)	**Type of comment**[2]	Comment (justification for change) by the MB	Proposed change by the MB	**Secretariat observations** on each comment submitted
US1						
DE	Foreword	1st paragraph	ge	Incomplete description in front of “standardization	Add “Electrotechnical”	
DE	4.2, p.9	2nd para		Incomplete definition	secondly for installations in Europe the EU Commission doc “Council recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (1999/519/EC)”	
DE	5.1	4th para. P.10	ge	Clarification	as it is the predominant mode of operation for UHF RFID systems.	
DE	5.1.1	2nd Para below Fig.4	te	Obsoleted text	Delete para starting “Where the orientation….	
NL	5.1.3	Table 1	te	last scenario tag behind metal mesh 1x 1 mm :	1 x 1 meter	
DE	5.2	Figure 6	ge	Improved figure 6	Replace graph by new proposal (see below)	
DE	5.2	2nd para below fig.6	ge	Obsoleted reference	Delete , 2007 ETSI published ETSI EN 302 208-1v1.2.1	
DE	5.2	2nd para below Fig.6	te	Missing clarification / newer ETSI information	Delete channel shall be 200 kHz and the centre frequency of the lowest channel shall be 865,7 MHz. The remaining three high power channels shall be spaced at equal intervals of 600 kHz. Tags should preferably respond in the dense interrogator mode within the low power channels. A diagram of the channel plan for the band is… Replace by: According to the revised ETSI standard EN 302 208-1 v1.2.1 published in April 2008: Interrogators shall operate within the band 865 MHz to 868 MHz on any of the four specified high power channels as illustrated below. The band width of each high power channel shall be 200 kHz and the centre frequency of the lowest channel shall be 865,7 MHz. The remaining three high power channels shall be spaced at equal intervals of 600 kHz. Tags should preferably respond in the dense	

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					interrogator mode within the low power channels. A diagram of the channel plan for the band is given below.	
DE	5.2	Above	te	Missing information	Insert new figure 7 (see below	
DE	5.2	2nd para below old fig.6	te	Modify text	This permits RFID use in four of the channels (channels 4, 7, 10, and 13) at higher power. Specification of the 4-channel plan included removal of the mandatory requirement for Listen Before Talk (LBT).	
DE	5.2	Below the 4 bullets frequency listing.	ge	Clarification needed	1) Insert Continuous after "The maximum …. 2) Insert "is"	
DE	5.2	Below the 4 bullets frequency listing.	ed	Clarification needed	Modify marked text after the previous paragraph : — "Need to provide end users with acceptable reading performance. — The requirement to operate a large number of interrogators simultaneously in the same geographic space	
DE	5.2	3rd para	te	Delete obsolete text	Delete: The 4-channel technique may be directly applicable to other countries, which can designate only limited spectrum to RFID.	
DE	5.2	Para starting "Benefits to the 4-channel….	ed	Clarification needed	Modify text: — Very spectrum efficient - satisfactory operation by a high density of interrogators in a relatively narrow band (i.e. 3 MHz). The 4-channel technique may be directly applicable to other countries, which can designate only limited spectrum to RFID.	
DE	5.2	Paragr . starting: "Using appropriate ….	ed	Text to be improved	Modify text: Using appropriate techniques, other Short Range Devices (SRDs) can share the same band with RFID.	
NL	5.2	page 9	te	after the mentioned frequency ranges cannot not :		

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		first sentence		2x not type mismatch..		
NL	5.2	page 9	te	benefits of the 4-channel approach : Disadvantaging/other characteristics of not LBT.	I can imagine that some disadvantages are : right of the strongest reader in that area (as in Wifi systems), influance on response times due to shared bandwidth, etc.	
NL	6.x		te	Clauses are missing for the influance of Humidity, UV, liquids		
NL	6.1	site survey, 3rd - :	te	...during the day.. Consider not only the current use, but also the future use of RFID in your business. for instance : not only SGRAI (that might be the current business need), but also what will be the consequences for the interrogator system when the goods or the cases will be item-tagged in future (interference, performance, etc.).		
DE	6.2	Below fig 7 (Old Fig.7)	ed	Text clarifications	Delete: When we consider the interferences in UHF band, Modify text: Modify: For FHSS and LBT systems we have to know that there is a limitation of the channel numbers that can be available at same time. As described in Clause 5.2, Regulatory Consideration, these channel numbers are different in each country, for example in North America 50 channels, in EU 15 channels for LBT systems and in Japan 9 channels are available at same time. The interference will be caused when the multiple	
NL	6.2.2.1.1.	page 14	te		another solution for this problem instead of shielding is : analyse all readings (field strength) and which reader read it in software/firmware by statistical/fuzzy rules/algorithms to take conclusions about the location/state of the read object.	
DE	6.2.2.1.3.3	2nd line	ed	Clarify text	Delete "off" in the second lin in the middle	
DE	7.1.1	First and 4th line	ed	Figure ref # missing	Add figure numbers	
DE	7.1.2.1	3rd line	ed	Add "for "	Modify text: would be beneficial for the management team responsible	

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DE	7.1.3	2nd line	ed	Text unclear	A positive confirmation that a read is necessary that will trigger the RFID reader. Typically this is done	
DE	7.1.3	3rd para	ed	Elim. space	Correct word “without” , eliminate space	
DE	7.2.1	Below Fig. 12	ed	Replace “rates” by performance	Successful 100% read performance were obtained to roughly 2.5 metres across a 2.15 metres span and 50% read performance to roughly 3.4 metres. Reads were almost nonexistent beyond 3.6 metres. De	
US2	Pages 8 and 9				dB should be replaced with dBi	
US3	Pages 8 and 9			regulations allow for 1 W of power with 6 dB antenna. See US1	Add “6 dBi is the maximum allowed LINEAR gain. The difference between the maximum linear gain of the circular polarized antenna strongly depends on its axial ratio: the difference is close to 3 dB if the axial ratio is very low (0 dB) and close to 0 dB if the axial ratio is very high.”	
DE	9.1	Below Fig 23	ed	Replace “rates” by performance	Through the reading test, the impact of the orientation of antenna to the reading performance was evaluated. The tag reading performance was Modify text improved from the average: 10% (at face to face state), to the average: 60% (at parallel state). This result means that to reduce or mitigate the interference from the other interrogator, we have to take account not only the distance between interrogator but also the	
NL	9.1	last passage	te		Cease transmitting is only appropriate for a limited number of applications. For instance how to detect stand still when ceasing transmission after a set period after first trigger ? Continuous reading will give you more useful information what is happening on the floor than stop reading after ‘a set period’. We foresee then discussion/difficulties about defining that ‘set period’with technicians as well as the business.	
US4	Section 9.2			The read/write zone is not a UNION of antenna patterns, as shown on many of the plots in the	Add after "The configuration of antennas will be	

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				document, but their INTERSECTION. However, the pattern of the receiving antenna needs to be scaled by the reader sensitivity factor, and this is a whole other technical discussion.	highly dependent on individual applications. The present document therefore is able only to provide broad guidelines on the subject." the sentence "The scope of guidelines for antenna selection and installation given in this document is limited to readers with combined transmit/receive ports (where the same antenna transmits and receives)"	
US1	Page 23			It must be said that antenna linear gain and circular gain are not always related by 3 dB, it depends on the axial ratio. Page 23 only gives an example with 7.5 dB circular polarized antenna without saying what its axial ratio is.	Add “It is inherently assumed that it satisfies the regulations which says that the antenna must have 6 dB of gain because common notion is that CP antenna gain - 3 dB = its linear gain.”	