Data Report Number: 39799-04A



NATIONAL TECHNICAL SYSTEMS 1146 Massachusetts Avenue Boxborough, MA 01719 Phone: (978) 266-1001 Fax: (978) 266-1073 www.ntscorp.com

DATA REPORT PREPARED

for

Zebra Technologies Corporation



Issued: December 22, 2004

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CLIENT INFORMATION					
Company Name:	4	Zebra Technologies Corporation			
Company Contact:		Richard Bergeron			
Address:		30 Plan Way			
City, State, Zip:		Warwick, RI 02886-1012			
Purchase Order Number:		4500033170			
Purchase Order Date:	0	October 8, 2004			

NTS CONTRACT INFORMATION						
NTS Master Job Order (MJO) Number:		39799-04A				
NTS Quotation Number:		B-0904A-5126				
Quotation Revision:		0				
Quotation Date:		September 29, 2004				

REFERENCES

• ISO/IEC 17025, General Requirements for the Competence of Testing and Calibration Laboratories, 1999

• CEI IEC 529, Second Edition 1987-11, Degree of Protection Provided by Enclosures (IP Code)

Prepared by:

Rebuch J Ha

Approved by:

Reviewed by:

Read R. Lag

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5					Data		-					DR : 39
Test I	Name:	F	Protection Against S	olid Ob	ojects]	Unit(s)) Unde	r Test:	R١	V420 Po	rtable Printe
Specif	ication:		IEC 52	9			G	Quantit	y:			1
Spec	. Date		2001-0	2				M/N(s)	:		RW	V420
Para. /	Method:		13.2					S/N(s)			XXRC04	4-37-0008
			. –			_	RESULT					
Tes	t Started	l:	1	0/19	9/2004	·	Те	st Con	npleted			10/19/200
Unit	Under T	est Infor	mation	Y	N	N/A			С	omme	ents	
Tested in s	hipping o	container	:		Х							
Operating of	during te	st:			Х	1						
Operated b					Х							
Powered d	uring tes	ting:			Х		V		Α		AC/DC	;
		nctionals		Х		1						-
Passes pos	st-test ful	nouonais	-	^								
Passes pos Physical da			•	Ê	X							
	amage no	oted:		X	X		No egr	ess of	f probe).		
Physical da	amage no	oted: equireme		X	X	Log	No egr <mark>g Entry</mark>	ess of	f probe) <u>.</u>		Initia JG
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Physical da Does unit(s Date	amage no s) pass re Time	oted: equireme Test set	ents: - up complete ons: A probe	ed.	2.5 mm	diarr	g Entry neter. is p	bushed	J again		opening	JG
Physical da Does unit(s Date	amage no s) pass re Time	oted: equireme Test set	ents: - up complete ons: A probe	ed.	2.5 mm	diarr	g Entry	bushed	J again		opening	JG
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Test Photographs Protection Against Solid Objects Test Setup



Test Unit



Test Unit



Test Unit

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Data Sheet

DR: 39799-04A

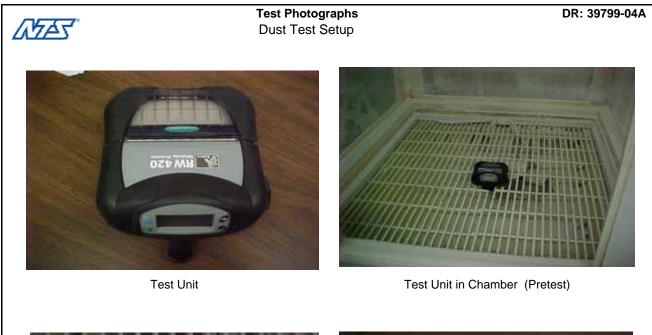
Test Name:	Dust					
Specification:	IEC 529					
Spec. Date	2001-02					
Para. / Method:	13.4 Cat.2					

Unit(s) Under Test:	RW420 Portable Printer
Quantity:	1
M/N(s):	RW420
S/N(s):	XXRC04-37-0001

TEST SETUP AND RESULTS

				-					-	
Test Started:	Test Started: 10/19				٦	Fest Co	mple	10/19/2004		
	_									
Unit Under Test Informa	Υ	Ν	N/A				Comme	ents		
Tested in shipping container:		Х								
Operating during test:			Χ							
Operated by Client:			Х							
Powered during testing:			Х		V		Α		AC/DC	
Passes post-test functionals:										
Physical damage noted:			Х							
Does unit(s) pass requirements	S:	Х			Post	test U	nit is	operab	le.	

Date	Time	Log Entry	Initia
10/19/04	900	Test set- up completed.	JG
		Conditions of test: Duration - 8 hours	
		Talc shall remain in suspension for duration.	
		The test unit will experience no pressure difference	
		relative to the surrounding air.	
		Acceptance Criteria: The protection is satisfactory if, on inspection	
		talc has not accumulated in quantity, or location	
		such that it could interfere with the correct	
		operation of the equipment or impair safety.	
	930	Test unit is placed into dust chamber.	JG
	945	Test begins.	JG
	1745	Test completed.	JG
10/20/04	830	Test unit is removed from chamber for inspection. Unit is lightly brushed	JG
		off to remove excess dust .	
	835	Customer does post test checkout on unit. Unit operates correctly.	
		Next, the battery pack is removed. Gasketed battery contacts are OK.	JG
		Label paper door is opened and roll removed. A small amount of dust is	
		present. Please see photo page.	
	840	Test unit has passed the dust test (IP5).	JG
		1	1





Test Unit in Chamber (Posttest)



Posttest Unit is Operable



Inspection of Test Unit -Traces of Dust Found

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Data Sheet

DR: 39799-04A

Test Name:	Oscillating Tube	
Specification:	IEC 529	
Spec. Date	2001-02	
Para. / Method:	14.2.4	
P		-

Unit(s) Under Test:	RW420 Thermal Printer
Quantity:	1
P/N(s):	RW420
S/N(s):	XXRC04-37-0007

TEST SETUP AND RESULTS

Test Started:	10/19/2	004				Test Co	mpleted:		10/*	19/2004
Unit Under Test Inforr	Υ	Ν	N/A				Comme	ents		
Tested in shipping container:	Tested in shipping container:									
Operating during test:			Х							
Operated by Client:			Х							
Powered during testing:			Х		V		Α		AC/DC	
Passes post-test functionals:	Х			Unit	t printed	out	labels po	ost test.		
Physical damage noted:			Х							
Does unit(s) pass requirement	Χ			mod	dified un	it				

Date	Time	ne Log Entry			
10/19/04	1030	Test setup completed	JG		
		Conditions: The oscillating tube has holes over the hole 180°			
		of the semicircle.			
		The flow rate is 2.6l/min			
		The tube will oscillate through an angle of almost 360°.			
		Time of 1 complete oscillation - approx. 12 sec.			
		Duration of test - 10 min.			
		Acceptance Criteria: If any water has entered, it shall not interfere			
		with the correct operation of the equipment or			
		impair safety.			
	1100	Test unit is placed on test stand.	JG		
	1105	Test begins.	JG		
	1115	Test completed Inspection will follow.	JG		
	1120	Customer performs post test checkout. Unit is operating correctly and.	JG		
		safely.			
	1125	This unit has passed. (IPX4)	JG		



Test Unit

Test Unit on Stand



Test Setup



Posttest - Unit Printing Label

ATAT

Data Sheet

DR: 39799-04A

Test Name:	Oscillating Tube		
Specification:	IEC 529		
Spec. Date	2001-02		
Para. / Method:	14.2.4		

Unit(s) Under Test:	RW420 Thermal Printer
Quantity:	1
P/N(s):	RW420
S/N(s):	XXRC04-37-0008

TEST SETUP AND RESULTS

Test Started: 10/19/20		004			Test Completed:		10/19/2004			
Unit Under Test Inforr	Υ	Ν	N/A		Comments					
Tested in shipping container:		Х								
Operating during test:			Х							
Operated by Client:			Х							
Powered during testing:			Х		V		Α		AC/DC	
Passes post-test functionals:		Х			Unit printed out labels posttest.					
Physical damage noted:			Х							
Does unit(s) pass requirements:					Unmodified test unit					

Date	Time	Log Entry	Initia
10/19/04	1140	Test setup completed	JG
		Conditions: The oscillating tube has holes over the hole 180°	
		of the semicircle.	
		The flow rate is 2.6l/min	
		The tube will oscillate through an angle of almost 360°.	
		Time of 1 complete oscillation - approx. 12 sec.	
		Duration of test - 10 min.	
		Acceptance Criteria: If any water has entered, it shall not interfere	
		with the correct operation of the equipment or	
		impair safety.	
	1145	Test unit is placed on test stand.	JG
	1150	Test begins.	JG
	1205	Test completed Inspection will follow.	JG
	1210	Customer performs posttest checkout. Unit is operating correctly and.	JG
		safely.	
	1220	This unit has passed. (IPX4)	JG



Test Unit

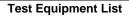
Test Unit on Stand



Test Setup



Posttest - Unit Printing Label





This equipment is calibrated according to ISO/IEC 17025 and calibration is traceable to the National Institute of Standards and Technology (NIST). Calibration records are maintained on file at National Technical Systems.

Inv. #	Description	Cal. Due	List Date	Test Name
CH426	Dust Chamber	NCR	10/7/2004	Dust IP5
TI354	Micristar	UWCE	10/7/2004	Dust IP5
FM350	Stopwatch	7/13/2005	10/8/2004	Water Jet IPx4
PP317	Scale	12/12/2004	10/8/2004	Water Jet IPX4
PP505	Force Gauge	5/19/2005	10/19/2004	IP3
PP417	Verniers	1/6/2005	10/19/2004	IP3
		1		
		1		
		1		

UWCE = Use with Calibrated Equipment CBU = Calibrate Before Use NPCR = No Calibration Required

Receiver

DR: 39799-04A



Unit(s)) Received by: Jim Gregoriou Date: 10/19/2004

TEM	QTY.	P/N	S/N	Description	OK
1	1	RW420	XXRC04-37-0001	Portable Printer	Х
2	1	RW420	XXRC04-37-0007	Portable Printer	Х
3	1	RW420	XXRC04-37-0008	Portable Printer	Х
4					
5					
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7					
8					
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11					
12					
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