MIL-STD-662F – Test Report

Client:	Dazzeon Technology Co., Ltd. Attention: Thomas Chen 6F, No. 337, Sec. 1, Dunhua S. Rd., Da'an Dist. Taipei City, Taiwan 10685
Report date:	**13 March 2017**
Job number:	000007000B
Test procedure and supporting documentation:	Per Customer Instructions MIL-STD-662F
Sample receipt, identification information, and disposition:	The sample(s) were received on **3 March 2017**. Sample item identification and description details are provided on the attached data record(s). The test sample(s) were inspected prior to testing and no anomalies were discovered. Sample(s) will be returned, discarded, or held, per customer instructions.
Test date(s) and location:	Testing commenced on **7 March 2017**, at the H.P. White Laboratory, Inc. facilities located at 3114 Scarboro Road, Street, Maryland. Testing concluded on **7 March 2017**.
Report prepared by:	Tiffany Haines, Customer Operations Specialist
Report reviewed by:	Chris D'Amario, Engineer
Revision number and date:	NA
Test data transmittal method and storage location:	This test report and test data were transmitted via email in a manner compliant with ISO 17025 requirements. Permanent electronic and hardcopy files are maintained in accordance with HPWLI data storage policy on data storage systems, filed by job number.
Disclaimer:	Testing was performed on sample(s) provided by the client. H.P. White Laboratory, Inc. holds no responsibility for sample selection methods. This report is based on data obtained from testing only the sample(s) submitted, and should NOT be interpreted as an endorsement by H.P. White Laboratory, Inc. of the continuing quality or performance of any other items of the same, or similar, design. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. This testing was performed by H.P. White Laboratory, Inc. to client specification, and the test results are the property of the client, who holds all rights of reproduction or publication of this report and related test data.
Destination control statement:	These items are controlled by the U.S. government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s) herein identified. They may not be resold, transferred, or otherwise disposed of, to any other country or to any person other than the authorized ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. government or as otherwise authorized by U.S. law and regulations.

Ballistic Limit Testing: All testing was conducted on an indoor range at ambient conditions, in accordance with your instructions and the provisions of MIL-STD-662F. Testing was conducted using caliber .22, 17 gr., FSP ammunition. The test sample(s) were positioned 15.0 feet from the muzzle of the barrel to produce zero (0°) degree obliquity impacts, with respect to the tangent of the helmet curvature at the points of impact. The helmet suspension system, if received as an integral helmet system, was removed from the helmet shell prior to conducting Ballistic Limit Protection (V50 BL[P]) Testing. The helmet shells were rigidly mounted and affixed to an articulating helmet clamping fixture. Photoelectric infrared screens were located at 5.0 feet and 10.0 feet which, in conjunction with electronic chronographs, were used to compute bullet velocities at 7.5 feet forward of the muzzle. The striking velocity was computed using standard drag formulas. Complete and partial penetrations were determined by visual examination of the 0.020-inch-thick 2024-T3 aluminum alloy witness plate, placed 2.0 inches behind and parallel to the impact location(s). Table I provides a summary of information on the attached data record(s).

Table I: Ballistic Limit V50, MIL-STD-662F, Summary of Results

Test Sample				Set-Up			Results (fps)		
Conditioning	Sample No.	Thickness (in.) (a)	Weight (lbs.)	Caliber	Obliquity	Shots Total/V50	Test Result V50	**High Partial**	Low Complete
AMBIENT	HELMET B	0.319	3.24	.22 FSP	0°	10/6	2136	2175	2115

(a) Average of four (4) measurements
(b) See individual data record(s) for specific footnotes/remarks

Report prepared by:

Tiffany Haines
Customer Operations Specialist

Report reviewed by:

Chris D'Amario
Engineer

H.P. White Laboratory, Inc.

Client : 6024:DAZZEON TECHNOLOGY CO., LTD.

PROTECTION BALLISTIC LIMIT TEST, V50 BL(P)

Job No. : 000007000 Test Date : 3/7/17

TEST PANEL

Manufacturer : BLUE SHIELD TECHNOLOGY CO., LTD.
Size : NA
Thicknesses : 0.320, 0.315, 0.320, 0.319 in.
Avg. Thick. : 0.319 in.
Required BL(P). :
Description : RIGID WOVEN ARAMID FIBER IN MATRIX. (HELMET)

Sample No. : HELMET B
Heat No. : NA
Weight : 3.24 lbs.
Hardness : NA
Plies/Laminates : NA

Date Rec'd. : 3/3/2017
Via :
Returned :

SET-UP

Shot Spacing : PER MIL-STD-662F
Witness Panel : 0.020", 2024-T3 ALUMINUM
Obliquity : 0 deg.
Backing Material : NA
Conditioning : AMBIENT

Primary Vel. Screens : 5.0 ft., 10.0 ft.
Primary Vel. Location : 7.5 ft. From Muzzle
Residual Vel. Screens : NA
Residual Vel. Location : NA
Range to Target : 15.0 ft.
Target to Wit. : 2.0 in.

Range No. : 5
Temp. : 62.8 F
BP : 29.81 in. Hg
RH : 33%
Barrel No./Gun : 17gr-223-R5
Gunner : WOLFE/FULK
Recorder : ALLINGHAM

AMMUNITION

Projectile : .22 Fragment Simulator, 17 gr.
Powder : BULLSEYE

Lot No. : 8208

APPLICABLE STANDARDS OR PROCEDURES

(1) : MIL-STD-662F
(2) :
(3) :

Shot No.	Powder/ Seating	Time 1 (usec)	Velocity 1 (ft/s)	Time 2 (usec)	Velocity 2 (ft/s)	Avg. Vel. (ft/s)	Vel. Loss (ft/s)	V-Strike (ft/s)	Result	Include in V50	Footnotes
1	4.2	2185	2288	2189	2284	2286	106	2181	C	Y	(a)
2	3.9	2402	2082	2406	2078	2080	96	1984	P		(a)
3	4.1	2205	2268	2209	2263	2266	105	2161	C	Y	(b)
4	3.9	2298	2176	2303	2171	2173	100	2073	P		(b)
5	4.1	2250	2222	2259	2213	2218	102	2115	C	Y	(c)
6	3.9	2294	2180	2303	2171	2175	101	2075	P	Y	(c)
7	4.0	2253	2219	2262	2210	2215	102	2112	P	Y	(d)
8	4.1	2118	2361	2127	2351	2356	109	2247	C		(d)
9	4.0	2132	2345	2136	2341	2343	108	2235	C		(e)
10	3.9	2190	2283	2195	2278	2281	105	2175	P	Y	(e)

REMARKS :

(1) Velocity loss computed using standard formulas.
(2) Weight of helmet includes suspension system.

FOOTNOTES :

(a) SHOT IMPACTED ON CROWN OF HELMET.
(b) SHOT IMPACTED ON FRONT OF HELMET.
(c) SHOT IMPACTED ON LEFT SIDE OF HELMET.
(d) SHOT IMPACTED ON BACK OF HELMET.
(e) SHOT IMPACTED ON RIGHT SIDE OF HELMET.

V50 SUMMARY :

No. Points : 3 & 3
V50 : 2136
High Partial : 2175
Low Complete : 2115
Range of Results : 106
Range of Mixed : 60

Filename : 000007000 (HELMET B) 6024 GONG WEI CO. LTD..V50