INCH POUND

MIL-DTL-63108C (AR) 30 October 2015 SUPERSEDING MIL-C-63108B (AR) 27 February 1995

DETAIL SPECIFICATION

CARTRIDGE, IMPULSE: M796

This specification is approved for use by the U.S. Army Armament Research, Development and Engineering Center (ARDEC) and is available for use by all Departments and Agencies of the Department of Defense within the distribution limitations noted at the bottom of the page.

1. SCOPE

1.1 <u>Scope</u>. This specification describes the parts, assembly, requirements and associated verification methods for one type of electrically initiated cartridge, designated as Cartridge, Impulse: M796.

Comments, suggestions, or questions on this document should be addressed to Commander, ARDEC, ATTN: RDAR-EIQ-SE, Picatinny, New Jersey 07806-5000 or e-mailed to <u>usarmy.picatinny.ardec.list.ardecstzn-branch@mail.mil</u>. Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <u>https://assist.dla.mil</u>.

AMSC N/A

FSC 1377

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2. APPLICABLE DOCUMENTS

2.1 <u>General</u>. The documents listed in this section are specified in sections 3 or 4 of this specification. This section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements of documents cited in sections 3 and 4 of this specification, whether or not they are listed.

2.2 Government documents

2.2.1 <u>Specifications, standards and handbooks</u>. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified the issues of this documents are those cited in the solicitation or contract.

DEPARTMENT OF DEFENSE STANDARDS

MIL-STD-810C	-	Test Method Standard for Environmental Engineering Considerations and Laboratory Tests
MIL-STD-1168	-	Ammunition Lot Numbering and Ammunition Data Card
MIL-STD-1916	-	DOD Preferred Methods for Acceptance of Product

(These documents are available online at <u>http://quicksearch.dla.mil</u> or from the Standardization Document Order Desk, 700 Robbins Avenue, Building 4D, Philadelphia, PA 19111-5094).

2.2.2 <u>Other Government documents, drawings, and publications</u>. The following other Government documents, drawings, and publications form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those cited in the solicitation or contract.

ARMAMANT RESEARCH, DEVELOPMENT and ENGINEERING CENTER DRAWINGS

9311402	-	Countermeasure, Chaff: M1
9311430	-	M130 System
19397-179750	-	AN/ALE-47
19397-196402	-	AN/ALQ-212(V)
9311434	-	Dispenser Assembly
9311451	-	Payload Module Assembly
9311478	-	Retaining Plate Assembly
9311479	-	Payload Module
9311488	-	Plate Assembly, Sequencer
9311554	-	M130 Wiring Interface

9311611	-	Cable Assembly
9311660	-	Cartridge, Impulse M-796
9311662	-	Disc, Closure
9311663	-	Washer, Closure
9311666	-	Pin, Contact
9311667	-	Eyelet
9311668	-	Pin, Contact Assembly
9311669	-	Case, Squib
9335632	-	Payload Module
9354498	-	Inert Flare for the M130 Aircraft General Purpose Dispenser
10534810	-	Propellant, HPC-1

(Copies of these drawings may be requested online at <u>usarmy.picatinny.ardec.list.drawing-</u> <u>request-help-desk@mail.mil</u> or from U.S. Army ARDEC, ATTN: RDAR-EIS-PE, Picatinny, NJ 07806-5000).

2.3 <u>Order of precedence</u>. Unless otherwise noted herein or in the contract, in the event of a conflict between the text of this document and the references cited herein, the text on this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

3. REQUIREMENTS

3.1 <u>First article</u>. When specified (see 6.2) a sample of the item shall be subjected to first article inspection in accordance with 4.2.

3.2 <u>Conformance</u>. A sample shall be subjected to conformance inspection in accordance with 4.3.

3.3 Materials, components and assemblies.

3.3.1 M796 impulse cartridge. The M796 impulse cartridge shall conform to 9311660.

3.3.2 <u>HPC-1 propellant</u>. The HPC-1 propellant shall conform to 10534810. Propellant lots that were analyzed more than two years from the date of intended use shall be reanalyzed for stabilizer (ethyl centralite), moisture content, and nitroglycerin. HPC-1 propellant shall have stabilizer content not less than 0.6 percent and moisture content not greater than 1.5 percent.

3.4 <u>Environmental requirements</u>. Cartridge shall be free of visual defects after each environmental test.

3.4.1 <u>Transportation vibration</u>. The cartridge shall meet the operational and performance requirements of 3.5 through 3.12 after undergoing dynamic vibration stresses representative of equipment transported as secured cargo.

3.4.2 <u>Shock</u>. The cartridge shall meet the operational and performance requirements of 3.5 through 3.12 after undergoing expected dynamic shock stresses.

3.4.3 <u>Humidity</u>. The cartridge shall meet the operational and performance requirements of 3.5 through 3.12 after undergoing exposure to high relative humidity at cycling elevated temperatures.

3.4.4 <u>Aircraft vibration</u>. The cartridge shall meet the operational and performance requirements of 3.5 through 3.12 after undergoing dynamic vibration stresses expected on an aircraft during flight conditions.

3.4.5 <u>Temperature-altitude</u>. The cartridge shall meet the operational and performance requirements of 3.5 through 3.12 after undergoing simultaneously applied varying conditions of low pressure and high/low temperature.

3.4.6 <u>Water immersion</u>. The cartridge shall meet the operational and performance requirements of 3.7 through 3.12 after being immersed in water for not less than fifteen minutes.

3.5 <u>Bridgewire Resistance</u>. The resistance of the bridge circuit of the cartridge between the contact pin and the case shall be 1.0 ± 0.15 Ohms.

3.6 <u>No-fire sensitivity</u>. The cartridge shall not fire when subjected to a direct current not less than 1 ampere with a ripple current not greater than 5 percent.

3.7 <u>All-fire sensitivity</u>. The cartridge shall fire when subjected to a direct current no greater than 4.25 amperes applied for no greater than 15 milliseconds to the bridge circuit.

3.8 <u>Petaling</u>. After functioning, the cartridge disc shall show visual evidence of petaling on over half of the visible area.

3.9 <u>Crimp integrity</u>. After functioning, the cartridge shall exhibit a secure crimp for 360 degrees between the case and closure washer.

3.10 <u>Pressure-time trace</u>. The cartridge shall produce a pressure vs. time output response with the following characteristics when tested in a closed bomb.

3.10.1 <u>Rise time</u>. The rise time shall not be greater than 25 milliseconds (ms).

3.10.2 <u>Peak pressure</u>. The peak pressure shall not be less than 450 pounds per square inch (psi) and not greater than 750 psi.

3.10.3 <u>Slope</u>. The slope shall not be greater than 150 psi/ms.

3.10.4 <u>Total function time</u>. The total function time shall not be greater than 50 ms.

3.11 <u>Evacuation test</u>. After functioning, no more than 6.19 grams of chaff shall remain in the M1 chaff cartridge.

3.12 <u>Velocity test</u>. Upon ejection, the inert pellet shall have an initial velocity between 90 and 200 feet per second.

3.13 <u>Lot numbering</u>. Ammunition lot numbering shall be in accordance with MIL-STD-1168.

3.14 <u>Workmanship</u>. Cartridges shall be clean and free of burrs, sharp edges, unblended radii, surface defects, chips, dirt, grease and oil (except where specifically required), corrosion products and other foreign matter. The cleaning method used shall not be injurious to any part or assembly nor shall they be contaminated by the cleaning agent. Exterior surface coatings shall be continuous except for a few light scratches not exposing base material. All required markings and stampings shall be neat and sharply defined.

4. VERIFICATION

Method of Verification				(Classes Of Verification			
1 – Analysis				A – First Article				
2 – Demonstration (end item test)				B – Conformance Inspection				
3 - Examination	(· · · · · · · · · · · · · · · · · · ·
4 - Test								
Guiden 2			1	Veri	rification			
Section 3	Description		Metho			Cla	ass	Section 4 Verification
Requirment		1	2	3	3 4 4		В	
3.1	First article	X	Х	Х	Х	Х		4.2 and Table II
3.2	Conformance	Х	Х	Χ	Х		Х	4.3 and 4.4
3.3.1	M796 impulse cartridge		Х	Χ	Χ	Х	Х	4.4.1
3.3.2	HPC-1 propellant	X		Х	Χ	Х		4.14
3.4	Environmental requirements			Х	Χ	Х	Х	4.5
3.4.1	Transportation vibration			Х	Х	Х		4.5.1
3.4.2	Shock			Х	Х	Х		4.5.2
3.4.3	Humidity			Х	Х	Х		4.5.3
3.4.4	Aircraft vibration			Х	Х	Х		4.5.4
3.4.5	Temperature-altitude			Х	Χ	Х		4.5.5
3.4.6	Water immersion			Х	Χ	Х	Х	4.5.6
3.5	Bridgewire resistance		X		Χ	Х	Х	4.6
3.6	No-fire sensitivity			Х	Х	Х	Х	4.7
3.7	All-fire sensitivity			Х	Х	Х	Х	4.8
3.8	Petaling			Х	Х	Х	Х	4.9
3.9	Crimp integrity			Х	Χ	Х	Х	4.10
3.10	Pressure-time trace			Х	Х	Х	Х	4.11
3.10.1	Rise time			Х	Х	Х	Х	4.11.1
3.10.2	Peak pressure			Х	Χ	Х	Х	4.11.2
3.10.3	Slope			Х	Χ	Х	Х	4.11.3
3.10.4	Total function time			Х	Х	Х	Х	4.11.4
3.11	Evacuation test			Х	Χ	Х		4.12
3.12	Velocity test		X		Χ	Х	Х	4.13
3.13	Lot numbering		X			Х	Х	4.15
3.14	Workmanship			Х		Х	Х	4.4.1

TABLE I. <u>Requirements/verification cross-reference matrix</u>.

4.1 <u>Classification of inspections</u>. The inspection requirements specified herein are classified as follows:

a. First article inspection (see 4.2).

b. Conformance inspection (see 4.3).

4.2 <u>First article inspection</u>. When specified, a first article sample shall undergo demonstration, examination and testing in accordance with Table II. First article samples shall be manufactured using the same vendors, methods, materials, equipment, processes, procedures and facilities as will be used during regular production. The first article inspection shall be 100% examination for defects of all drawing requirements including workmanship requirements for the parts and assemblies listed in 4.4.1, and all the tests specified in Table II herein.

4.2.1 <u>First article rejection</u>. If any assembly, component or test specimen fails to comply with any requirement, the first article sample shall be rejected.

Examination or Test	Notes	Number of Sample Units	Requirement Paragraph	Inspection Method Referecnce
<u>Closure disc</u> (9311662) Examination for defects		30	3.3.1	4.2
<u>Closure washer</u> (9311663) Examination for defects		30	3.3.1	4.2
Contact pin (9311666) Examination for defects		30	3.3.1	4.2
Contact pin assembly (9311668) Examination for defects		30	3.3.1	4.2
Eyelet (9311667) Examination for defects		30	3.3.1	4.2
Case (9311669) Examination for defects		30	3.3.1	4.2
Propellant, HPC-1 (10534810) Examination for defects		30	3.3.2	4.14

TABLE II. First article inspection.

Notes	Number of Sample Units	Requirement Paragraph	Inspection Method Referecnce
1/ 3/ 4/,6/ 2/,4/,6/ 2/,4/,6/ 2/,4/,6/ 5/,6/ 5/,6/ 5/,6/	260 260 230 220 210 200 190 180 90 45 45	$\begin{array}{c} 3.3.1\\ 3.5\\ 3.4.1\\ 3.4.2\\ 3.4.3\\ 3.4.4\\ 3.4.5\\ 3.4.6\\ 3.7, 3.10\\ 3.7, 3.11\\ 3.7, 3.12\end{array}$	4.4.1 4.6 4.5.1 4.5.2 4.5.3 4.5.4 4.5.5 4.5.6 4.8, 4.11 4.8, 4.12 4.8, 4.13
	1/ 3/ 4/,6/ 2/,4/,6/ 2/,4/,6/ 2/,4/,6/ 5/,6/ 5/,6/	Notes Sample Units 1/ 260 3/ 260 4/,6/ 230 2/,4/,6/ 220 2/,4/,6/ 210 2/,4/,6/ 200 2/,4/,6/ 190 5/,6/ 90 5/,6/ 45	Notes Sample Units Paragraph 1/ 260 3.3.1 3/ 260 3.5 4/,6/ 230 3.4.1 2/,4/,6/ 220 3.4.2 2/,4/,6/ 210 3.4.3 2/,4/,6/ 190 3.4.4 2/,4/,6/ 190 3.4.5 180 3.4.6 3.4.6 5/,6/ 90 3.7, 3.10 5/,6/ 45 3.7, 3.11

TABLE II. First article inspection - Continued.

Notes:

1/ Perform tests in order indicated. See Figure 1 for first article test sequence.

2/ Cartridges shall be tested assembled to the M1 countermeasure chaff 9311402 and Payload Module Assembly 9311451, 19397-179750, 19397-196402. Cartridges shall not be removed from the M1 Cartridge until Temperature-altitude has been completed.

3/ Of the 30 samples pulled after the bridgewire resistance test, 10 shall be All fire/pressure-time Trace tested, 10 will be All fire/evacuation tested and 10 shall be All fire/velocity tested.

4/ All 10 samples pulled after each environmental conditioning shall be All fire/pressure-time trace tested.

5/ After functioning, all samples shall exhibit petaling and crimp integrity.

6/ All units prior to function testing shall be subject to Bridgewire resistance and No fire sensitivity testing.

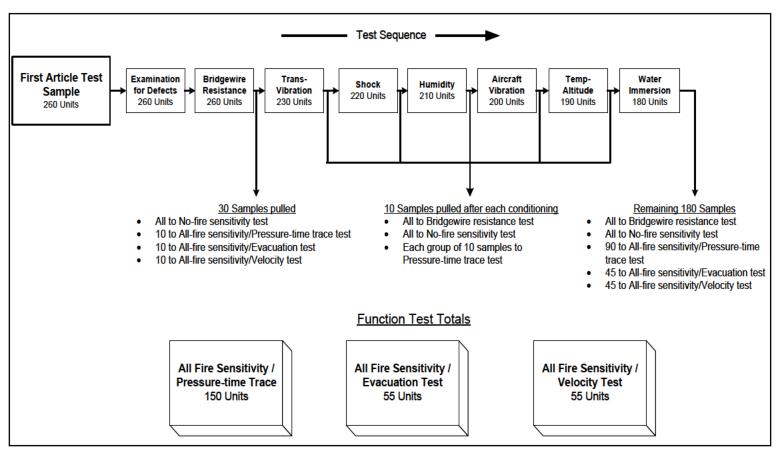


FIGURE 1. First article test sequence.

4.3 Conformance inspection.

4.3.1 <u>Inspection lot formation</u>. The term "inspection lot" is defined as a homogeneous collection of units of product from which a representative sample is drawn or which is inspected 100 percent to determine conformance with applicable requirements. Units of product selected for inspection shall represent only the inspection lot from which drawn and shall not be construed to represent any prior or subsequent quantities presented for inspection. Homogeneity shall be considered to exist provided the inspection lot has been produced by one manufacturer, in one unchanged process, using the same materials and methods, in accordance with the same drawings, same drawing revisions, same specifications and same specification revisions and complies with the provisions for submission of product as specification shall comply with the homogeneity criteria specified herein, regardless of the type of inspection procedure which is being applied to determine conformance with requirements. In addition each M796 inspection lot shall contain:

a. Inert parts from not more than one interfix from one manufacturer.

b. Composition ingredients and HPC-1 Propellant from not more than one lot from one supplier.

c. Initiation and booster charge compositions of one or more batches produced under one continuous set of operating conditions, with each batch of composition having been subjected to the physical mixing process intended to make the batch homogeneous.

4.3.2 <u>Lot size</u>. Lot size of M796 impulse cartridges shall not exceed 25,920 deliverable units. Samples required for test purposes shall be in addition to the deliverable units.

4.3.3 <u>Conformance inspection rejection</u>. A lot shall be rejected if any failure occurs in any test or requirement.

4.3.4 <u>Classification of characteristics</u>. For the examination for defects 4.4.1 the definitions of critical, major and minor defects are in accordance with MIL-STD-1916. Unless otherwise specified in the paragraphs of 4.4 sampling plans and acceptance criteria for critical, major, and minor characteristics shall be in accordance with MIL-STD-1916.

a. <u>Sampling requirements.</u> Inspection sampling requirements for Critical, Major, and Minor characteristics are as defined in MIL-STD-1916. Unless otherwise specified, Inspection Level IV shall be used for all characteristics defined as Majors and Inspection Level II for all Minor characteristics.

b. <u>Conformance inspection</u>. Conformance inspection shall be performed in accordance with 4.3 through 4.15.

CategoryExamination or TestNo. of Sample UnitsVerification Level or 100%Requirement t Paragraph Reference/ Inspection MethodParagraph Reference/ Inspection MethodCriticalNone defined4.143.3.24.14113Propellant Test4.143.3.1Gage101surface4.141.3.3.1GageScalant missing/color not visible or Sealant missing/color not visible or 102Level IV3.3.1Visual103Crimp missing or inadequate Bared diameter (see 9311669)Level IV3.3.1Gage105Base diameter (see 9311669)100%3.54.6106Bridgewire resistance test All-fire sensitivity testTABLE III TABLE III(1/)3.4.64.5.6108Water immersion All-fire sensitivity test/Pressure-time All-fire sensitivity Velocity testTABLE III TABLE III(1/)3.84.9112Crimp integrity All-fire sensitivity/Velocity testTABLE III III(1/)3.3.1Gage202Overall length Marking incorrect, illegible or missing WorkmanshipLevel IV3.3.1Gage203NextiLevel II All-fire sensitivity Velocity testIIILevel II III3.1.4Visual203Notes:Level II All-fire sensitivity Velocity testIIIILevel II III3.1.4Visual	4.4.1	<u>M796 in</u>	npulse cartridge.			Drawing Number 9311660
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1/ Use sample from previous test.		mple from previous test.				

Lot Size	Sample Size	Accept	Reject
0 to 1000	30	0	1
1001 to 3000	60	1*	2*
3001 to 10000	90	2*	3*
10001 to 25920	120	3*	4*

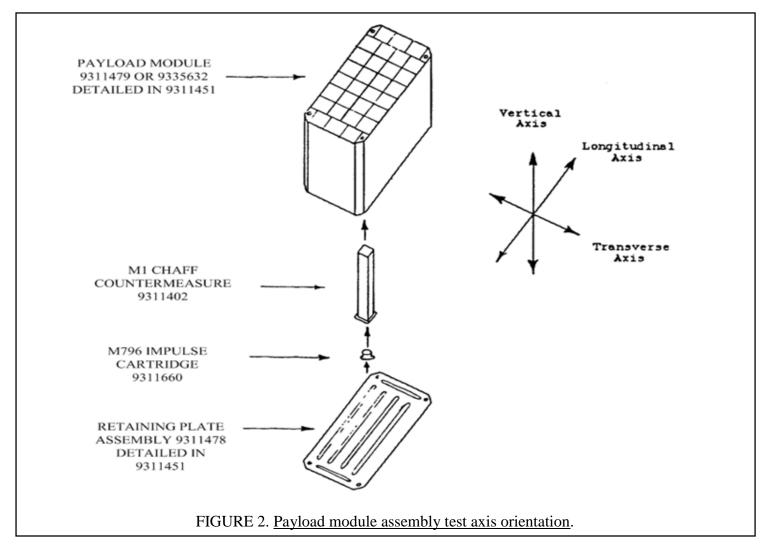
TABLE III.	Sampling quantities	s for acceptance testing.	
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*additional pass/fail criteria/requirements are specified in paragraph 4.7, 4.8 and 4.9.

4.5 <u>Environmental verification</u>. Following each of the environmental conditioning tests of section 4.5 the cartridges shall be examined for the visual defects in 4.4.1. Cartridge shall be free of visual defects after each environmental test.

4.5.1 <u>Transportation vibration</u>. This test shall be performed in accordance with MIL-STD-810C, Test Method 514.2, Procedure X, Curve AW. The cartridge shall be tested bare in a hard mount fixture.

4.5.2 <u>Shock</u>. This test shall be performed in accordance with MIL-STD-810C, Test Method 516.2, Procedure I, Figure 516.2-2. In Figure 516.2-2 the nominal duration (D) and peak value shall be for flight vehicle equipment. The tolerance for nominal duration shall be ± 1 millisecond. The cartridge shall be tested assembled to the M1 countermeasure countermeasure chaff 9311402 and loaded into the payload module assembly 9311451, 19397-179750, 19397-196402. See Figure 2 for test axis orientation.



4.5.3 <u>Humidity</u>. This test shall be performed in accordance with MIL-STD-810C, Test Method 507.1, Procedure I, omitting step 6. (10 days). The cartridge shall be tested assembled to the M1 countermeasure chaff 9311402 and loaded into the payload module assembly 9311451.

4.5.4 <u>Aircraft vibration</u>. This test shall be performed in accordance with MIL-STD-810C, Test Method 514.2, Procedure IIC and Procedure IA/Category b.2. The cartridge shall be tested assembled to the M1 countermeasure chaff 9311402 and loaded into the payload module assembly 9311451, 19397-179750, 19397-196402. See Figure 2 for test axis orientation. The following test parameters shall be used in accordance with MIL-STD-810C as listed below.

a. Table 514.2-IIA and Figure 514.2-2A. "W₀" shall be 0.2 G^2/Hz .

b. Figure 514.2-2A. Random vibration envelope, the frequency "VAR" shall be 89.5 Hz, and the acceleration power spectral density at the 2000 Hz cutoff point shall be 0.05 G^2/Hz .

c. Table 514.2-IVA. The number of missions shall be 101.

d. Figure 514.2-4C. The number of missions shall be 100.

e. Figures 514.2-4D, 514.2-4E and 514.2-4F. The weight used for the test item shall be 50 pounds.

4.5.4.1 <u>Vibration – axis orientation</u>.

a. See Figure 2 for Payload Module/Item Assembly test axis orientation.

b. Orientation/mounting of payload module assembly to the vibration table for each of the three axes shall be such that the open end of the payload module assembly is at the top with the chaff cartridge in place and the impulse cartridge assembled at the bottom as shown.

c. To best meet the vibration requirements for the longitudinal axis and transverse axis a slip plate shall not be used. In lieu of utilizing the slip plate, the vibrator shall be turned 90° and the payload module assembly attached/positioned to maintain orientation as indicated in paragraph b.

d. The stud nuts shall be replaced with high strength threaded rods on both ends in order to secure the payload module assembly containing test items to the vibration table attached plate 9311428. Use a washer and two nuts on each rod.

4.5.5 <u>Temperature-altitude</u>. This test shall be performed in accordance with MIL-STD-810C, Test Method 504.1, Procedure I, Table 504.1-II, category 6, omitting step 5. The high temperature requirement shall be 85 °C in lieu of 95 °C listed in the referenced table.

The cartridge shall be tested assembled to the M1 countermeasure chaff 9311402 and loaded into the payload module assembly 9311451, 19397-179750, 19397-196402.

4.5.6 <u>Water immersion</u>. Test cartridges shall be immersed in not less than six inches of water for not less than fifteen minutes. Within ten minutes after removal from the water the units shall be tested in accordance with 4.8 and 4.11. Prior to function testing, exterior surfaces of units shall be dried using a towel or compressed air.

4.6 <u>Bridgewire resistance</u>. The resistance of the bridge circuit shall be measured at 75 ± 15 degrees Fahrenheit with a test current not greater than 10 milliamperes direct current.

4.7 <u>No-fire sensitivity test</u>. A direct current of 1 ampere shall be applied to the cartridge. For first article inspection, the current shall be applied for not less than 300 seconds. For conformance inspection, the current shall be applied for not less than 10 seconds and not greater than 15 seconds. Any cartridge that fires shall be cause for rejection of the lot.

4.8 <u>All-fire sensitivity test</u>. A direct current not greater than 4.25 amperes shall be applied for not greater than 15 milliseconds. Any cartridge that does not fire shall be cause for rejection of the lot.

4.9 <u>Petaling</u>. Following all-fire sensitivity testing, each cartridge shall be examined for visual evidence of petaling. The pie-sections of the disc shall be folded or melted. Burn-through without visual petaling is not acceptable. Any cartridge that does not exibit evidence of petaling shall be cause for rejection of the lot.

4.10 <u>Crimp integrity</u>. Following all-fire sensitivity testing, the cartridge shall be visually examined for integrity of the crimp. All testing will be performed in accordance with Table III. Please refer to Table III for lot acceptance/rejection criteria.

 $4.11 \underline{\text{Pressure-time trace test}}$. The sample cartridge shall be tested for the output characteristics described in 3.10 in a closed bomb having a net volume of 43.5 ± 1.5 cubic centimeters with the cartridge in place. The firing current shall be a direct current not greater than 4.25 amperes applied for not greater than 15 milliseconds to the bridge circuit. All testing will be performed in accordance with Table III. Lot acceptance/rejection criteria shall be in accordance with Table III.

4.11.1 <u>Rise time</u>. Rise time shall be measured between 10 percent of peak pressure and peak pressure.

4.11.2 <u>Peak pressure</u>. The pressure shall be measured with a pressure recording instrumentation.

4.11.3 <u>Slope</u>. Slope shall be determined by that portion of the pressure-time trace between 10 percent and 90 percent of peak pressure.

4.11.4 <u>Total function time</u>. Total function time shall be the elapsed time from first application of firing current to peak pressure.

4.12 Evacuation test. The M796 impulse cartridge shall be fitted into the M1 countermeasure chaff 9311402 and payload module assembly 9311451, 19397-179750, 19397-196402. The payload module shall be attached to a dispenser assembly 9311434 and fired from a suitable fixture. The firing current shall be a direct current not greater than 4.25 amperes applied for not longer than 15 milliseconds to the bridge circuit. Drawings of the M130 wiring interface 9311554, cable assembly 9311611, M130 system 9311430, and sequencer plate assembly 9311488 are available as suggested guidance for interface with the dispenser assembly.

4.13 <u>Velocity test</u>. The M796 impulse cartridge shall be fitted into the inert flare for the M130 dispenser 9354498. The inert flare will be loaded into the payload module assembly 9311451, 19397-179750, 19397-196402 which is installed into the dispenser assembly 9311434. The inert flare shall be fired vertically at 90 degrees (elevation) with suitable instrumentation capable of sensing and recording ejection velocity. Velocity shall be measured between four and twelve feet from the test firing fixture. The firing current shall be a direct current no greater than 4.25 amperes applied for no longer than 15 milliseconds to the bridge circuit. Drawings of the M130 wiring interface 9311554, cable assembly 9311611, M130 system 9311430, and sequencer plate assembly 9311488 are available as suggested guidance for interface with the dispenser assembly. All testing will be performed in accordance with Table III. Lot acceptance/rejection criteria shall be in accordance with Table III.

4.14 <u>Propellant test</u>. Five drums per lot shall be selected randomly; one sample per drum shall be analyzed for stabilizer content (ethyl centralite), moisture content, and nitroglycerin. The propellant lot shall not be used if any sample fails to meet the requirement.

4.15 <u>Lot numbering</u>. Visually verify the lot numbering is in accordance with MIL-STD-1168.

5. PACKAGING

5.1 <u>Packaging</u>. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When packaging of material is to be performed by DOD or in-house contractor personnel, these personnel need to contact the responsible packaging activity to ascertain packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activities within the military service's system commands. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity.

6. NOTES

(This section contains information of general or explanatory nature that may be helpful, but is not mandatory)

6.1 <u>Intended use</u>. The components covered by this specification are intended for use on the M206 and M212 Countermeasure Flares, M211 Infrared Countermeasure Decoy, and M1 Countermeasure Chaff as part of the M839 Decoy Cartridge. This is military-unique material that has no known commercial application.

6.2 <u>Acquisition requirements</u>. Acquisition documents should specify the following:

a. Title, number and date of this specification, and of all reference documents cited in Section 2, and listed in Section 6 for information. Military and non-government standards should be current, except that MIL-STD-810C must be specified.

b. Requirements for submission of first article sample.

c. Requirements for submission of conformance inspection sample.

d. Requirement for submission of inspection equipment designs.

e. Requirements for submission of Ammunition Data Cards.

f. Requirements for submission of Propellant and Explosives data sheets as described in MIL-STD-1171

6.3. <u>Inspection equipment</u>. The inspection equipment required to perform the inspections and tests prescribed in this specification is identified in the "Paragraph Reference/Inspection Method" column in the table of paragraph 4.4.1 and the test method paragraphs. Offeror designs should be approved by the Government prior to fabricating or procuring the equipment. Inspection equipment used for acceptance of product should be capable of repeatable measurements, by various experienced inspection and test personnel, to an accuracy of 10% or better of the total tolerance of the characteristic being inspected.

6.3.1 <u>Submission of inspection equipment designs for approval</u>. Copies of designs as required should be submitted to: Commander, U.S. Army ARDEC, ATTN: RDAR-QEM-B, Picatinny, NJ 07806-5000. This address will be specified on the Contract Data Requirements List, DD Form 1423 in the contract. Partial submissions of inspection equipment designs are permissible and encouraged.

6.4 Key words.

Countermeasure Flare Chaff

6.5 <u>Changes from previous issue</u>. Marginal notations are not used in this revision to identify changes with respect to the previous issue due to the extent of the changes.

Custodian: Army-AR Preparing activity: Army-AR (Project 1377-2014-002)

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