

(V)

APPROVED NUMBER	MILLER DIAL ITEM NUMBER	HORIZONS ITEM NUMBER △1	SIZE (INCHES) △2	THICKNESS (INCH) △2	ALUMINUM ALLOY △3	COLOR	ACCEPTABLE COLOR RANGE △4				
							DARKEST	LIGHTEST			
△5 GA105G1B1003	71000	-----	10 x 14	0.003	1100-H14	DULL BLACK △9	37038	37056			
GA105G1B1003A	-----	2614 OR 2650	10 x 12	0.003	1100-H19						
GA105G1B1020	71060	3168 OR 3179	20 x 24	0.020	1100-H14						
GA105G1B1032	71129	3448 OR 3458		0.032							
△17 GA105G1B1040	71429	-----		0.040							
GA105G1B1063	71159	3721 OR 2068		0.063							
GA105G1B1125	71189	3990		0.125							
△17 GA105G1B9003	71024	-----		12 x 24					0.003		
△6 GA105G1D1003	71000	-----	10 x 14	0.003					DULL BLUE △10	35044	35237
GA105G1D1003A	-----	4620	10 x 12	0.003							
GA105G1D1020	71099	4975	20 x 24	0.020							
GA105G1D1032	71129	5031		0.032							
△17 GA105G1D1040	71429	-----		0.040							
GA105G1D1063	71159	5105		0.063							
△7 GA105G1R1003	71002	-----	10 x 14	0.003	DULL RED △11	31136	31158				
GA105G1R1003A	-----	4620	10 x 12	0.003							
GA105G1R1020	71099	4975	20 x 24	0.020							
GA105G1R1032	71129	5031		0.032							
△17 GA105G1R1040	71429	-----		0.040							
GA105G1R1063	71159	5105		0.063							
△8 GA105G1Y9003	71006	-----	10 x 14	0.003	LUSTERLESS YELLOW △12	33481	33538				
GA105G1Y9003A	-----	4620	10 x 12	0.003							
△17 GA105G2B1032	71129	-----	20 x 36	0.032	6061-T6	DULL BLACK	37038	37056			
GA105G2B1040	71429	-----		0.040							
GA105G2B1063	71159	-----		0.063							
GA105G2B1093	71199	-----		0.093							
GA105G2B1125	71189	-----		0.125							
△17 GA105G2B2063	71159	-----	24 x 36	0.063	1100-H14	SEMI-GLOSS BLACK △13	27038	27056			
GA105G2B3020	71801	3125 OR 3124	12 x 20	0.020							

SUPERSEDES AND REPLACES AMENDMENT, SAME NUMBER REV " U3 "

APVD ----- REVISED (V) 2013-11-08

ALUMINUM, PLATE AND FOIL,
PHOTOSENSITIVE, COLORED, PER GG-P-455

STANDARDS COMPUTER GENERATED DWG

GA105G

SH NO.	1	2	3	4	5	6	7	8	9
REV	v	v	v	v	v				

STANDARD

NORTHROP GRUMMAN SYSTEMS CORP., BETHPAGE, N.Y. 11714-3582

CAGE 26512 SHEET 1 OF 5

(V)

APPROVED NUMBER	MILLER DIAL ITEM NUMBER	HORIZONS ITEM NUMBER 1	SIZE (INCHES) 2	THICKNESS (INCH) 2	ALUMINUM ALLOY 3	COLOR	ACCEPTABLE COLOR RANGE 4	
							DARKEST	LIGHTEST
17 GA105G2D1032	71129	-----	20 x 36	0.032	6061-T6	DULL BLUE	35044	35237
17 GA105G2D1040	71429	-----		0.040				
GA105G2D3020	71805	4940	12 x 20	0.020	1100-H14	SEMI-GLOSS BLUE 14	25102	25299
GA105G2G3020	71084	4940		0.020		SEMI-GLOSS GREEN 15	24110	24158
17 GA105G2R1032	71129	-----	20 x 36	0.032	6061-T6	DULL RED	31136	31158
17 GA105G2R1040	71429	-----		0.040				
17 GA105G2R1063	71159	-----		0.063				
GA105G2R3020	71802	4940	12 x 20	0.020	1100-H14	SEMI-GLOSS RED 16	21105	21136

- 1 HORIZONS ITEM NUMBERS DENOTE PACKAGE QUANTITY ONLY AND MAY BE USED INTERCHANGEABLY
- 2 TOLERANCES PER GG-P-455
- 3 SEE TABLE I
- 4 FIVE DIGIT COLOR NUMBERS PER FED-STD-595
- 5 INACTIVE FOR DESIGN AND PROCUREMENT, USE SUPERSEDING PART NUMBER GA105G1B1003A
- 6 INACTIVE FOR DESIGN AND PROCUREMENT, USE SUPERSEDING PART NUMBER GA105G1D1003A
- 7 INACTIVE FOR DESIGN AND PROCUREMENT, USE SUPERSEDING PART NUMBER GA105G1R1003A
- 8 INACTIVE FOR DESIGN AND PROCUREMENT, USE SUPERSEDING PART NUMBER GA105G1Y9003A
- 9 METALPHOTO® MATTE
- 10 POLYCOLOR® DARK BLUE
- 11 POLYCOLOR® RED
- 12 POLYCOLOR® YELLOW
- 13 METALPHOTO® SATIN
- 14 POLYCOLOR® DARK BLUE
- 15 POLYCOLOR® GREEN
- 16 POLYCOLOR® RED
- 17 INACTIVE FOR DESIGN AND PROCUREMENT, NO SUPERSEDING STANDARD

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REQUIREMENTS

1. GENERAL

- 1.1 ITEMS SHALL MEET THE REQUIREMENTS SPECIFIED HEREIN.
- 1.2 FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER THE DOCUMENTS REFERENCED HEREIN WHICH SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BIDS.
- 1.3 THE MANUFACTURER(S) LISTED AND THEIR AUTHORIZED DISTRIBUTORS ARE THE ONLY APPROVED SOURCES OF SUPPLY FOR ITEMS SHOWN HEREIN. ANY CHANGE MADE TO ITEMS BY MANUFACTURERS(S), WITHOUT PRIOR NORTHROP GRUMMAN APPROVAL, MAY RESULT IN REJECTION OF ITEMS AND DISQUALIFICATION. THE "APPROVED SOURCE(S) OF SUPPLY" IS NOT TO BE CONSTRUED AS A GUARANTEE OF PRESENT OR CONTINUED AVAILABILITY AS A SOURCE OF SUPPLY FOR THE ITEM(S).

(V) 2. MATERIAL: ALUMINUM ALLOY PER TABLE I

(V)

TABLE I - MATERIAL PROCUREMENT SPECIFICATIONS			
MATERIAL THICKNESS ¹⁸	ALLOY-TEMPER ¹⁸	ALTERNATE ALLOY-TEMPER	PROCUREMENT SPECIFICATION
0.003	1100-H14	1100-H19	ASTM B479 ¹⁹
		1145-H19	
0.003	1100-H19	1145-H19	
0.020	1100-H14	1100-H18 OR 1100-H24	ASTM B209
0.032			
0.040			
0.063			
0.125			
0.032	6061-T6	-----	AMS4027
0.040			
0.063			
0.093			
0.125			

¹⁸ PER APPROVED NUMBER TABLE

¹⁹ CHEMICAL COMPOSITION LIMITS ONLY

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V 3. FINISH

3.1 ANODIZED, PHOTSENSITIVE, PRE-COLORED (PER APPROVED NUMBER TABLE) IN ACCORDANCE WITH GG-P-455, TYPE I, CLASS 1, GRADE 'A' (METALPHOTO®) AND TYPE II, CLASS 1, GRADE 'B' (POLYCOLOR®)

NOTE 1: 6061-T6 MATERIAL HAS NOT BEEN EVALUATED TO THE PERMANENCY REQUIREMENTS OF GG-P-455, SECTION 3.7.

NOTE 2: POLYCOLOR® HAS NOT BEEN EVALUATED TO THE REQUIREMENTS OF GG-P-455, SECTION 3.7.1.4 (ACCELERATED LIGHT AND WEATHER RESISTANCE) AND SECTION 3.7.1.5 (ACCELERATED OXYGEN AGING)

4. ENVIRONMENTAL

4.1 SERVICE TEMPERATURE RANGE: -51°F TO 250°F (-46°C TO 121°C)

5. STORAGE

5.1 STORAGE OR SHELF LIFE: WHEN STORED AT AMBIENT CONDITIONS IN OPAQUE PACKAGING MATERIAL SHALL BE CAPABLE OF MEETING ALL THE REQUIREMENTS SPECIFIED HEREIN FOR A PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF MANUFACTURE.

6. QUALITY ASSURANCE PROVISIONS

6.1 INSPECTION: UNLESS OTHERWISE SPECIFIED IN THE PURCHASE ORDER, THE MANUFACTURER IS RESPONSIBLE FOR THE INSPECTION OF PRODUCT TO THE REQUIREMENTS SPECIFIED HEREIN. THE MANUFACTURER MAY UTILIZE THEIR TEST FACILITIES OR ANY COMMERCIAL LABORATORY, UNLESS DISAPPROVED BY NORTHROP GRUMMAN.

V 6.2 UNLESS OTHERWISE SPECIFIED IN THE PURCHASE ORDER, THE SUPPLIER SHALL FURNISH A CERTIFIED REPORT WITH EACH SHIPMENT, APPROVED BY A DULY AUTHORIZED REPRESENTATIVE OF THE MANUFACTURER AND STATING CONFORMANCE TO THE REQUIREMENTS SPECIFIED HEREIN AND GG-P-455, FOR TYPE I OR TYPE II, CLASS 1, AND GRADE 'A' OR GRADE 'B', AS APPLICABLE (SEE 3.1 FOR EXCEPTIONS).

6.3 REINSPECTION: NORTHROP GRUMMAN RESERVES THE RIGHT TO PERFORM OR WITNESS ANY OF THE TESTS SPECIFIED HEREIN, WHEN THESE TESTS ARE DEEMED NECESSARY TO SUBSTANTIATE MATERIAL CONFORMANCE. TESTED MATERIALS THAT DO NOT MEET THE SPECIFIED REQUIREMENTS SHALL BE SUBJECT TO REJECTION.

7. PACKAGING

7.1 UNLESS OTHERWISE SPECIFIED IN THE PURCHASE ORDER, PACKAGING AND PACKING SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF GG-P-455 AND THE SUPPLIER'S PRACTICE TO ASSURE ADEQUATE PROTECTION, ACCEPTANCE FOR DELIVERY BY COMMON CARRIERS AND SAFE DELIVERY OF PRODUCT TO DESTINATION.

8. MARKING

8.1 ITEMS: NONE

8.2 PACKAGES SHALL BE LEGIBLY MARKED WITH THE MANUFACTURER'S NAME OR TRADEMARK, ITEM NUMBER AND THE APPROVED NUMBER.

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ENGINEERING INFORMATION

1. INTENDED FOR THE FABRICATION OF NAMEPLATES, PANEL FRONTS, SCHEMATICS, WIRING DIAGRAMS, INSTRUCTION PLATES, ETC.
2. REFER TO GSS4709 FOR PROCESSING INFORMATION.

PROCUREMENT INFORMATION

1. APPROVED SOURCE(S) OF SUPPLY

(V) ~~20~~ 1.1 ~~MILLER DIAL, LLC~~
~~EL MONTE, CA (CAGE 91345)~~

1.2 HORIZONS INCORPORATED
IMAGING SYSTEMS GROUP
CLEVELAND, OH (CAGE 02811)

~~20~~ DELETED AS AN APPROVED SOURCE OF SUPPLY

STANDARDS COMPUTER GENERATED DWG

GA105G

APVD -----

REVISED

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CAGE 26512

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