General Prop & EAR Notes:

SHEETS 1-2: UG DRAWING

SHEETS 3+: EXCEL PARTS LIST

(TEAMCENTER ITEM FOLDER)

Cables:

General notes:
WORKMANSHIP IAW J-STD-001, CLASS 3 AND IPC/WHMA-A-620, CLASS 3.
CLEANLINESS IAW J-STD-001, LEVEL C-20. SAMPLING TO BE AGREED UPON BETWEEN SUPPLIER AND MOOG ENGINEERING.
SOLDER ALLOY TYPE SN60A OR SN63A IAW J-STD-006.
ACCEPTANCE IAW IPC/WHMA-A-620, CLASS 3.

Quality assurance note (if applicable):
3.1 CONTINUITY TEST: 100% ELECTRICAL TEST SHALL BE PERFORMED TO ENSURE PROPER CONTINUITY OF ALL ELECTRICAL CONNECTIONS.
3.2 DIELECTRIC WITHSTANDING VOLTAGE (DWV) TEST: TEST IAW MIL-STD-202, METHOD 301. THE ASSEMBLY SHALL WITHSTAND, WITHOUT DAMAGE OR ARCING, A DWV TEST VOLTAGE APPLIED BETWEEN ALL ISOLATED CONDUCTORS AND THE CONNECTOR SHELL. THE DWV TEST SHALL BE PERFORMED WITH A POTENTIAL OF 500 VDC FOR 60 SECONDS.
3.3 INSULATION RESISTANCE (IR) TEST: TEST IAW MIL-STD-202, METHOD 302. THE IR BETWEEN ALL ISOLATED CONDUCTORS AND THE CONNECTOR SHELL SHALL BE GREATER THAN 1000 MEGOHMS WHEN A POTENTIAL OF 500 VDC IS APPLIED FOR 60 SECONDS.

Crimp note (if applicable):
CRIMPING OF CONNECTIONS SHALL MEET THE REQUIREMENTS OF IPC/WHMA-A-620, CLASS 3 AND THE FOLLOWING:
2.1 CRIMP TOOLING SHALL MEET THE REQUIREMENTS OF MIL-DTL-22520.
TOOLING USED FOR LUG CRIMPING SHALL BE OF A RATCHETING TYPE, NON-RATCHETING TOOLS ARE NOT ALLOWED.
2.2 OBJECTIVE EVIDENCE MUST BE PROVIDED TO SHOW THAT THE TOOLS USED FOR CRIMPING MEET THE GO/NO-GO AND TENSILE REQUIREMENTS OF MIL-DTL-22520.
2.2.1 CALIBRATION VERIFICATION IS REQUIRED USING GO/NO-GO GAGES AS A MINIMUM AT THE START AND AGAIN AT THE END OF EACH WORK SHIFT OR FOR EACH NEW SETUP, WHICH EVER IS SHORTER.
2.2.2 CRIMPS PRODUCED WITH TOOLING SHALL MEET THE MINIMUM ALLOWED PULL FORCE/TENSILE TESTING REQUIREMENTS AS SPECIFIED IN THE MECHANICAL TEST TABLE USING PULL AND BREAK TEST METHOD.
2.2.3 PULL FORCE/TENSILE TESTING IS REQUIRED AS A MINIMUM EACH WORK DAY OR FOR EACH NEW SETUP, WHICH EVER IS SHORTER.

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EMCU/Modules:

General notes:
WORKMANSHIP IAW J-STD-001, CLASS 3 AND IPC/WHMA-A-620, CLASS 3.
ACCEPTANCE IAW IPC/WHMA-A-620, CLASS 3.

Electrical Assembly and installation note (if applicable):
Tie-wrap notes should include: “Workmanship IAW IPC/WHMA-A-620, class 3”.

Staking (if applicable):
AFTER TORQUING, APPLY A BEAD OF ADHESIVE (FN z) BETWEEEN XXXXXX (FN x) AND YYYYYY (FN y) IAW J-STD-001, CLASS 3

CCAs:

General notes:
WORKMANSHIP IAW J-STD-001, CLASS 3 AND IPC/WHMA-A-620, CLASS 3.
CLEANLINESS LEVEL C-22. CLEANLINESS LEVEL REQUIREMENTS TO BE AGREED UPON BETWEEN SUPPLIER AND MOOG ENGINEERING (OR DEMONSTRATED ON ALL UNITS IF APPLICABLE (E.G. DIGITAL FLEX)).
SOLDER ALLOY TYPE SN60A OR SN63A IAW J-STD-006.
ACCEPTANCE IAW IPC-A-610, CLASS 3.

(620 NOTE APPLIED IF THERE IS HARDWARE PRESENT ON THE ASSEMBLY)

Electrical Assembly and installation note (if applicable (e.g. Power CCA)):
Tie-wrap notes should include: “Workmanship IAW IPC/WHMA-A-620, class 3”. If applicable (e.g. filter CCA

ESD NOTE:

ELECTROSTATIC DISCHARGE CONTROL PROGRAM FOR PROTECTION OF ELECTRICAL AND ELECTRONIC PARTS, ASSEMBLIES AND EQUIPMENT SHALL BE IAW ANSI/ESD S20.20 AND MIL-STD-1686. THIS ASSEMBLY IS CLASS 1.

MARKING NOTE:

MARK CAGE CODE "94697", ASSEMBLY NUMBER, SERIAL NUMBER AND REVISION LETTER IN HUMAN-READABLE CHARACTERS IN THE MARKING ZONE/S SHOWN IAW ANSI/J-STD-001 WITH BLACK CHARACTERS USING LABEL (FN XX). LABEL MAY BE TRIMMED TO FIT AREA SHOWN.

MARK CAGE CODE "94697", ASSEMBLY NUMBER, SERIAL NUMBER AND REVISION LETTER IN HUMAN-READABLE CHARACTERS IN THE MARKING ZONE/S SHOWN. LASER MARKING OF INFORMATION IAW SAE-AS478, METHOD 15A1. MARKING SHALL BE DISCERNIBLE WITHOUT BREAKTHROUGH.

TORQUE NOTES:

With Running Torque…
TORQUE LIMITS IN HEXAGON ARE MAX AND MIN VALUES IN IN-LB AND ARE ABOVE RUNNING TORQUE.
RUNNING TORQUE VALUES SHALL BE IAW EPS14886.

…OR…
TORQUE TO X.X ± x.x IN-LBS ABOVE RUNNING TORQUE. RUNNING TORQUE VALUES SHALL BE IAW EPS14886.

Without Running Torque…
TORQUE LIMITS IN SQUARES ARE MAX AND MIN VALUES IN IN-LB.

…OR…
TORQUE TO X.X ± x.x IN-LBS.

Notes:
J-STD-001 has no hardware.

J-STD-001 has better staking note vs. 620

ADHESIVES:

AFTER TEST AND PRIOR TO CONFORMAL COATING, APPLY ADHESIVE (FN XXX) TO APPLICABLE COMPONENTS:

SIDE A COMPONENTS:

C38 (FN 12); C39 (FN 324); C231 (FN 33); L1 (FN 53); L2 (FN 54); L14 (FN 250); T1 (FN 133); T3 (FN 198); T4 (FN 135); U2 (FN 137).

SIDE B COMPONENTS:

C4 & C58 & C115 (FN 324); C611 & C612 (FN 337).

ADHESIVE SHALL CONTACT COMPONENTS AND PWB (FN YYY) APPROXIMATELY AS SHOWN TO SECURE COMPONENTS IN PLACE.

KEEP ADHESIVE CONFINED TO THE INTENDED APPLICATION AREAS.

ADHESIVE THAT SPREADS TO NEARBY COMPONENT BODIES, PINS, TEST POINTS, LAND PATTERNS AND HOLES IS ACCEPTABLE PROVIDED IT DOES NOT INTERFERE WITH ANY SUBSEQUENT ASSEMBLY AND TEST OPERATIONS.

PARYLENE CC:

***CRITICAL CHARACTERISTIC ***

100% INSPECTION REQUIRED ON CHARACTERISTICS AND DIMENSIONS NOTED HEREIN.

AFTER ASSEMBLY AND TEST, CONFORMAL COAT (BOTH SIDES) OF CCA:

CONFORMAL COATING SHALL BE APPLIED IAW J-STD-001, CLASS 3 AND MOOG APPROVED SUPPLIER PROCEDURES.

CONFORMAL COATING SHALL BE APPLIED WITH THE FOLLOWING TAILORED REQUIREMENTS.

CHANGES TO SUPPLIER PROCEDURES SHALL REQUIRE MOOG ENGINEERING REVIEW AND APPROVAL.

6.1 PRIOR TO COATING EACH BOARD SHALL BE SUBJECTED TO A CLEANLINESS TEST PER NOTE 1.

6.2 PRIOR TO CONFORMAL COAT APPLICATION, MASK AREAS INDICATED:

/6.2.1\ COATING SHALL NOT EXTEND ONTO MATING SURFACES OF J1 (FN 60) AND J2 THRU J4 (FN 59) AND MOUNTING JACK SETS.

/6.2.2\ COATING SHALL NOT EXTEND INTO HATCHED AREA INDICATED FOR E1 THRU E8, INCLUDING SURFACE, INNER DIAMETER HOLE AND THREAD OF INSERT. MASKING SHALL APPROXIMATE SOLDER RESIST PATTERN OF PWB.

/6.2.3\ COATING SHALL NOT EXTEND ONTO MATING SURFACE OF METAL CORE (HATCHED AREA).

/6.2.4\ COATING SHALL NOT BRIDGE SLOTS.

/6.2.5\ COATING SHALL NOT EXTEND INTO HATCHED AREAS.

6.2.6 TAPE SHALL BE 3M SCOTCH 250 FLATBACK MASKING TAPE OR EQUIVALENT.

6.3 CONFORMAL COATING SHALL BE PARYLENE C IAW IPC-CC-830, TYPE XY, CLASS B. (.002 TO .003 THICK).

PARYLENE CONFORMAL COATING SHALL BE INSPECTABLE VIA USE OF A UV TRACER OR SOME OTHER INSPECTABLE MEANS.

/6.3.1\ BARREL AND BOTTOM SURFACE OF INSERTS E1 THRU E8 SHALL BE COATED, SEE PARTIAL VIEW B-B.

/6.3.2\ EDGE OF PWB AND METAL CORE SHALL BE COATED, ALL AROUND.

6.4 SUPPLIER SHALL PERFORM AND SUBMIT RESULTS OF ADHESION TEST IAW ASTM-D-3359-08, METHOD B, UTILIZING TEST COUPONS REPRESENTATIVE OF THE ASSEMBLY BEING COATED.

6.4.1 RESULTS SHALL MEET MINIMUM 3B CLASSIFICATION.

6.4.2 COUPON SOLDER MASK SHALL BE IDENTICAL TO PWB SOLDER MASK.

6.5 AFTER COATING, PRIOR TO INSTALLATION (AT NEXT HIGHER ASSEMBLY):

6.5.1 ASSEMBLY SHALL BE PACKED TO PRECLUDE COATING DAMAGE.

6.6 PARYLENE COATING MAY BE REMOVED TO ALLOW REWORK OF ASSEMBLY, PER IPC 7711/7721.

6.6.1 IF REWORK IS PERFORMED, ALL REWORKED AREAS SHALL BE EITHER RECOATED WITH PARYLENE OR TOUCHED UP WITH UR CONFORMAL COATING (FN 81), PURSUANT TO THE RESTRICTIONS AND REQUIREMENTS DEFINED IN 6.7 AND 6.8.

6.7 UR CONFORMAL COATING (FN 81) REWORK, TOUCH-UP OR REPAIR IS NOT ALLOWED WHEN THE REWORK REGION INCLUDES ANY OF THE COMPONENTS LISTED IN TABLE 1 OR ANY EXTERNAL COPPER ATTACHED TO THOSE COMPONENTS.

6.7.1 FOR THE COMPONENTS LISTED IN TABLE 1, IF THE TOUCH-UP IS DUE TO MISSING OR INSUFFICIENT PARYLENE ON CONNECTOR HARDWARE OR ONLY ON THE TOP SIDE OF A COMPONENT BODY AND NOT ON ANY METALLIC CONDUCTIVE PORTION OF THE PART, PAD, SOLDER JOINT, OR ADJACENT COPPER, THEN TOUCH-UP WITH UR CONFORMAL COATING (FN 81) (.005 ± .003) IS ALLOWABLE.

6.7.2 APPLICATION AND CURE OF UR CONFORMAL COATING (FN 81) SHALL BE IAW MANUFACTURER'S INSTRUCTIONS.

6.8 IF THE CONDITIONS FOR ACCEPTABLE REWORK/TOUCH-UP USING UR CONFORMAL COATING (FN 81) LISTED IN NOTE 6.7 ARE NOT MET, THEN REAPPLICATION OF PARYLENE IS REQUIRED.

6.8.1 IF PARYLENE IS USED TO RECOAT THE BOARD, THE REWORKED AREA MUST BE COATED TO .002 TO .003 THICK.

6.8.2 AREAS NOT REWORKED BUT RECOATED MAY EXCEED .003 THICK.

6.8.3 BOARDS MAY ONLY BE RECOATED WITH PARYLENE TWICE, FOR MAX TOTAL OF 3 COATS.

*** CRITICAL CHARACTERISTIC ***
100% INSPECTION REQUIRED ON CHARACTERISTICS AND DIMENSIONS NOTED HEREIN.