DATA ITEM DESCRIPTION

Form Approved
OMB No. 0704-0188

1. TITLE	2. IDENTIFICATION NUMBER
INTEGRATED CIRCUIT PHOTOMICROGRAPH	DI-QCIC-80885

3. DESCRIPTION/PURPOSE

3.1 The Integrated Circuit (IC) photomicrograph provides a pictorial representation of custom and hybrid ICs in order to familiarize inspectors with the device types (e.g., topological layout) unique to a particular manufacturer's facility. This data will provide a permanent historical and legal record.

4. APPROVAL DATE (YYMMDD)	5. OFFICE OF PRIMARY RESPONSIBILITY (OPR)	6a. DTIC APPLICABLE	6b. GIDEP APPLICABLE
890801	G/Y253		

7. APPLICATION/INTERRELATIONSHIP

7.1 This Data Item Description (DID) contains the format and content preparation instructions for the integrated circuits photomicrographs generated by the specific and discrete task requirement as delineated in the contract.

7.2 This data will supplement MIL-STD-883, Method 2010.7.

7.3 This DID supersedes DI-E-5312A.

8. APPROVAL LIMITATION	9a. APPLICABLE FORMS	9b. AMSC NUMBER
		G4795

10. PREPARATION INSTRUCTIONS

10.1 <u>Format</u>. The IC photomicrograph shall consist of a negative and an 8" x 10" color photomicrograph of each custom and hybrid IC produced under the contract. Each photomicrograph shall be identified by the applicable drawing number and placed in a protective, transparent cover.

10.2 <u>Content</u>. The entire die shall be visible in each color photomicrograph with the following items specifically identified (e.g., items may be marked by arrows and symbols keyed to a separate reference page):

    a. Metallization tracks (supply voltage, ground, clock, etc.)
    b. Type of wire bond (ultrasonic, wedge, ball bond, etc.), and type of wire (aluminum, gold, etc.).
    c. Tunnel diffusions (cross-overs), contact cuts, and basic chip geometry dimensions.
    d. Geometrically different transistors, including drain, source, and gate electrodes.
    e. Input and output gates, protective diodes, and passive devices.

11. DISTRIBUTION STATEMENT

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.