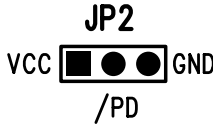
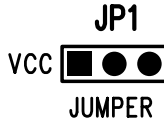
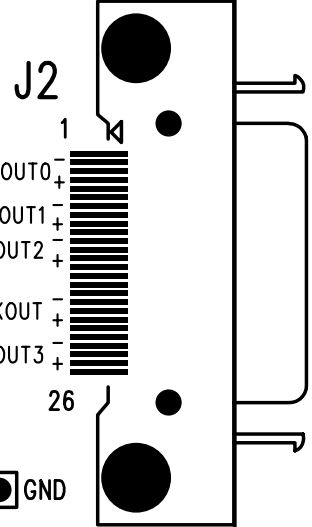
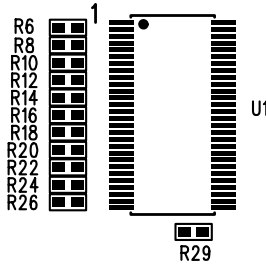
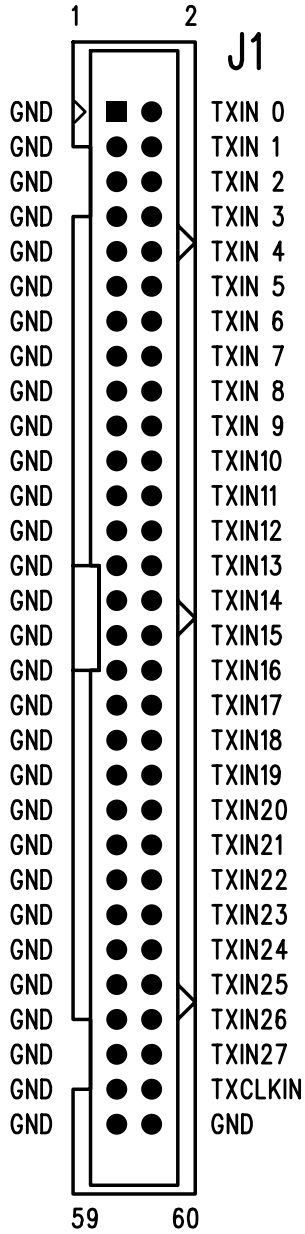


TP1
VCC

TP2
GND

+3.6V MAX



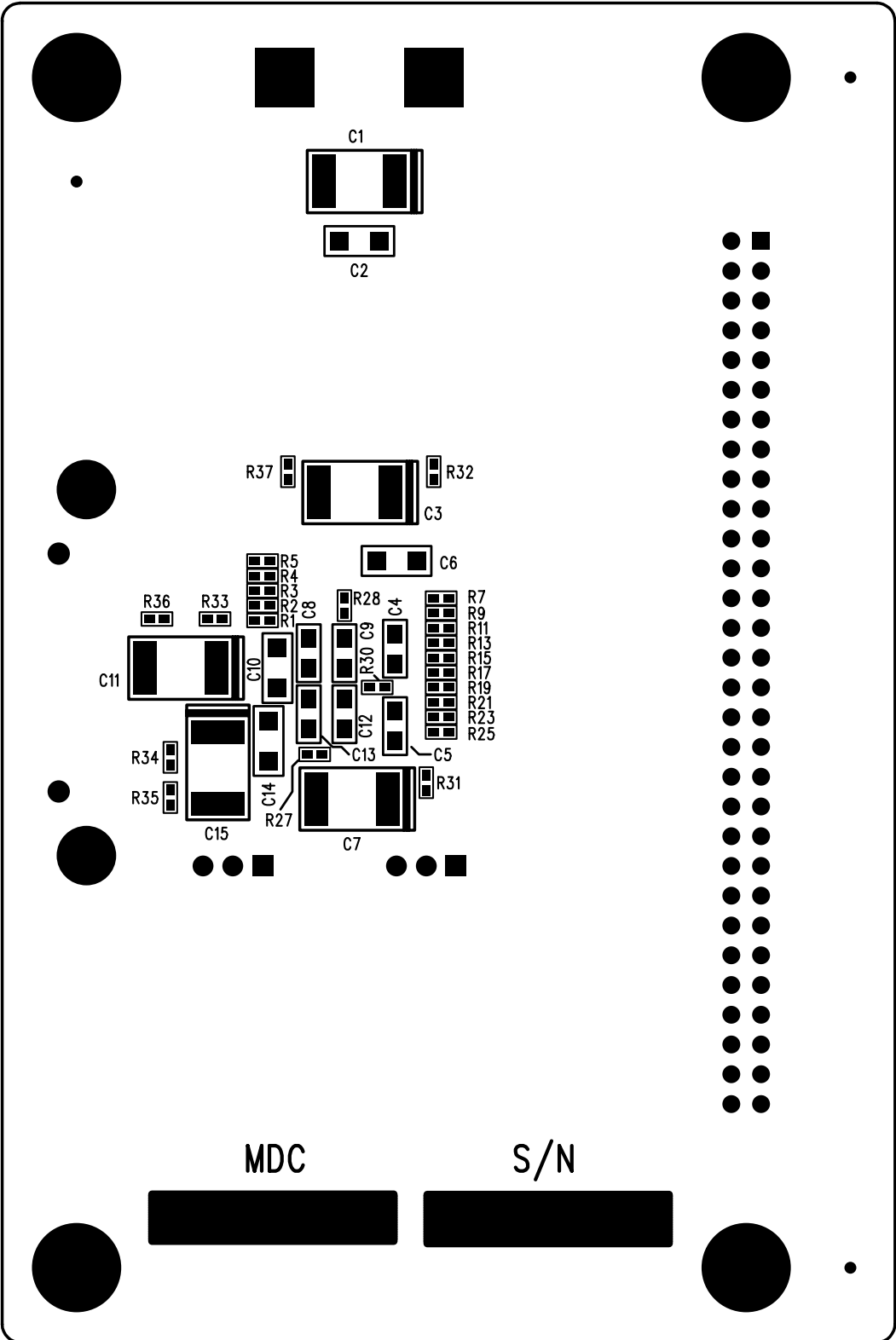
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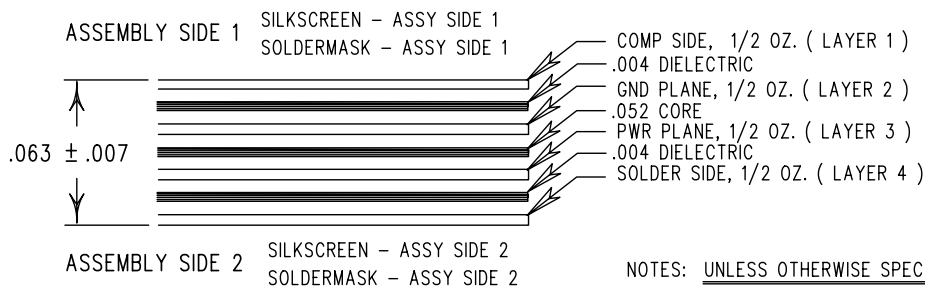
National
Semiconductor
HSL TX 8 BIT

MADE IN U.S.A.

ASSY HSL TX 8 BIT

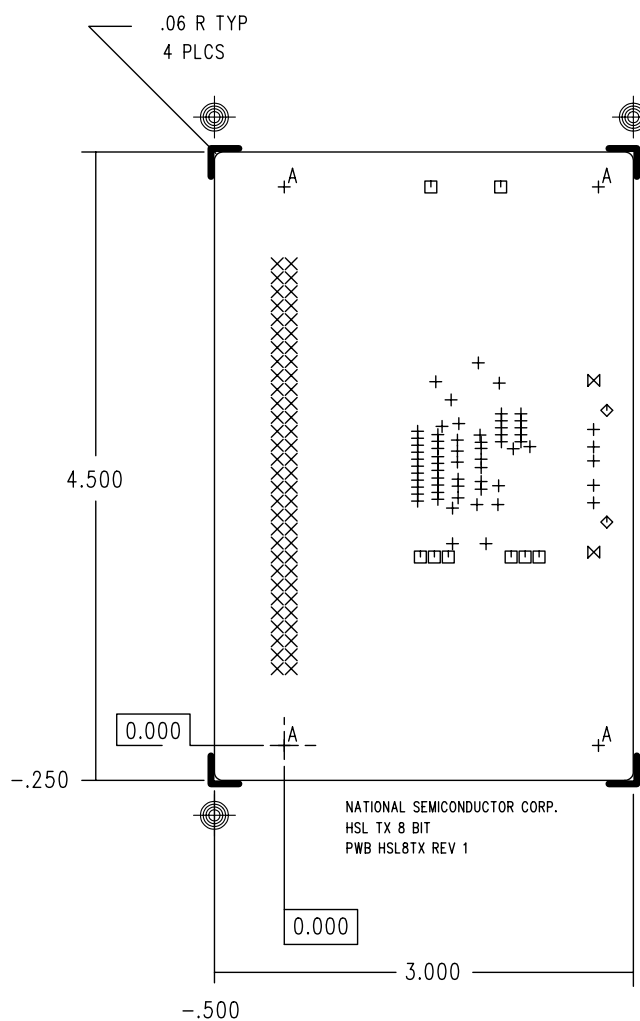
REV



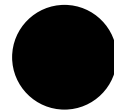
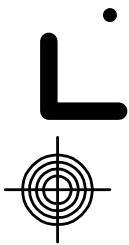
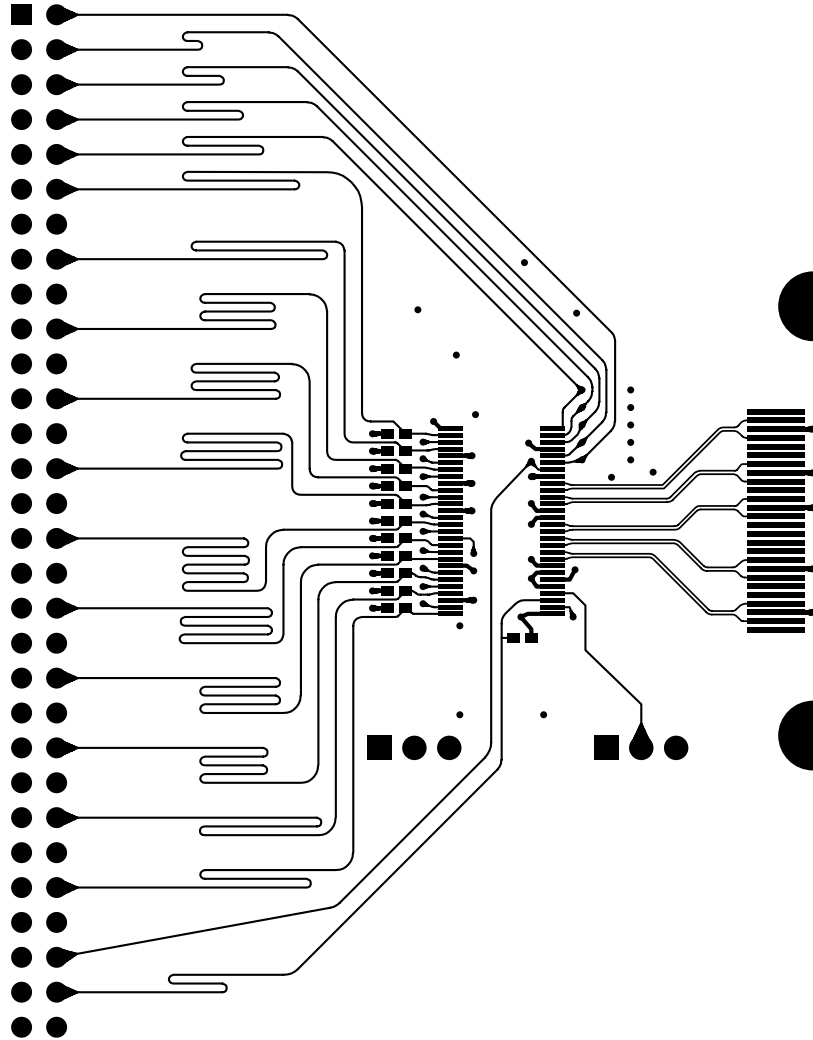
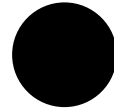


NOTES: UNLESS OTHERWISE SPECIFIED

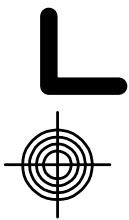
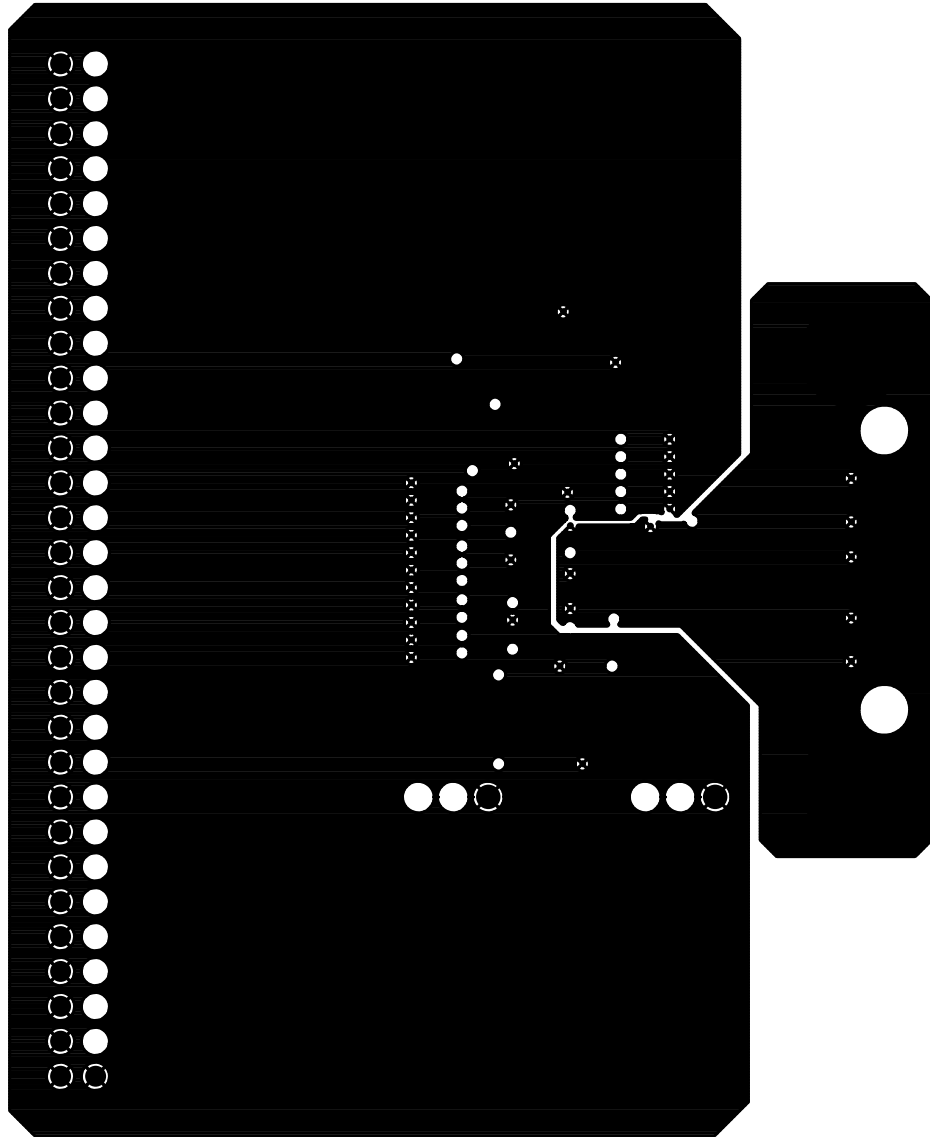
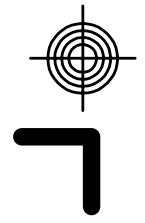
1. COMPONENT SIDE IS SHOWN.
2. DELETED.
3. FABRICATE USING MASTER FILM HSL TX 8 BIT REV 1.
4. ACCEPTABILITY SHALL BE BASED ON IPC-A-600, CLASS 2
5. MATERIAL: BASE MATERIAL IS NEMAL-1 GRADE FR4, COLOR GREEN, 0.063 INCH NOM. THICKNESS. COPPER CLADDING SHALL BE 1/2 OZ.
6. PLATING: ALL HOLES AND CONDUCTIVE SURFACES SHALL BE PLATED WITH A MIN. OF .001 INCH COPPER; .0005 MIN OVER-PLATED WITH TIN / LEAD, 60-40; HASL.
7. FABRICATION TOLERANCES:
END PRODUCT CONDUCTOR WIDTHS AND LAND DIAMETERS SHALL NOT VARY MORE THAN .003 INCH FROM THE 1:1 DIMENSIONS OF THE MASTER PATTERN. THE CONDUCTIVE PATTERN SHALL BE POSITIONED SO THAT THE LOCATION OF ANY LAND SHALL BE WITHIN .010 INCH DIAMETER TO THE TRUE POSITION OF THE HOLE IT CIRCUMSCRIBES THE MINIMUM ANNULAR RING SHALL BE .002 INCH. BOW AND TWIST SHALL NOT EXCEED .010 INCH PER INCH.
8. SOLDERMASK BOTH SIDES PER IPC-SM-840, TYPE A, CLASS B. COLOR-GREEN. THERE SHALL BE NO SOLDERMASK ON ANY LAND.
9. SILKSCREEN THE LEGEND ON BOTH SIDES USING NON CONDUCTIVE EPOXY INK, COLOR-WHITE. THERE SHALL BE NO INK ON ANY LAND.
10. THE 0.00675 MILL TRACES TO BE 50 OHM IMPEDANCE AND THE FIVE MILL (.005) TRACES TO BE 100 OHM DIFFERENTIAL PAIRS. THE 4 MILL (.004) DIELECTRIC REFERENCED IN BOARD STACK DETAIL IS SUGGESTED. HOWEVER, TRACE WIDTHS AND OR DIELECTRIC THICKNESS MAY BE MICRO-MODIFIED IN ORDER TO FABRICATE BOARDS TO THE REQUIRED IMPEDANCE NOMINALS TO A TOLERANCE OF +/- 5%.



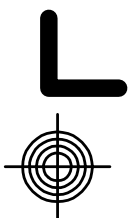
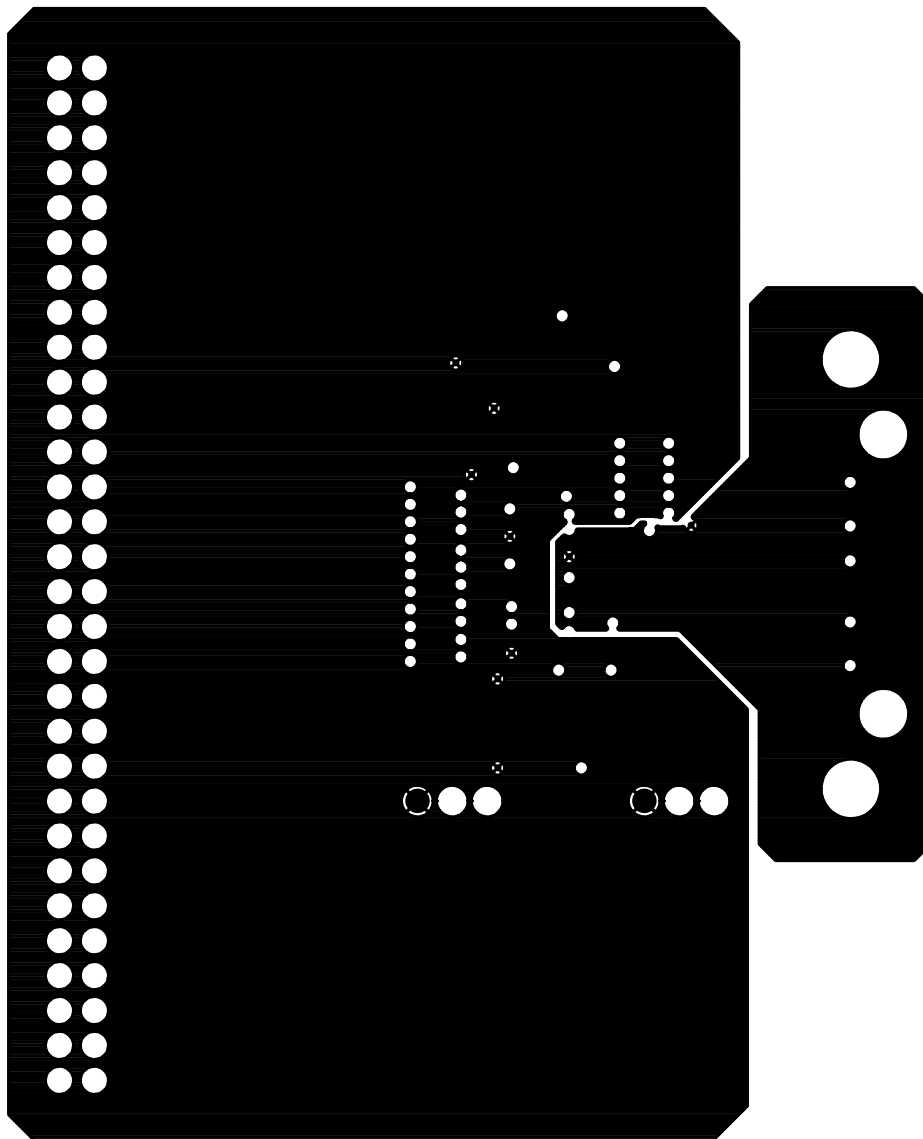
HOLE CHART				
CODE	SIZE	QTY	PLATED	TOL
+	0.009	63	YES	± .003
x	0.038	60	YES	± .003
□	0.043	8	YES	± .003
◇	0.079	2	NO	± .003
⊠	0.109	2	YES	± .003
A	0.156	4	YES	± .005



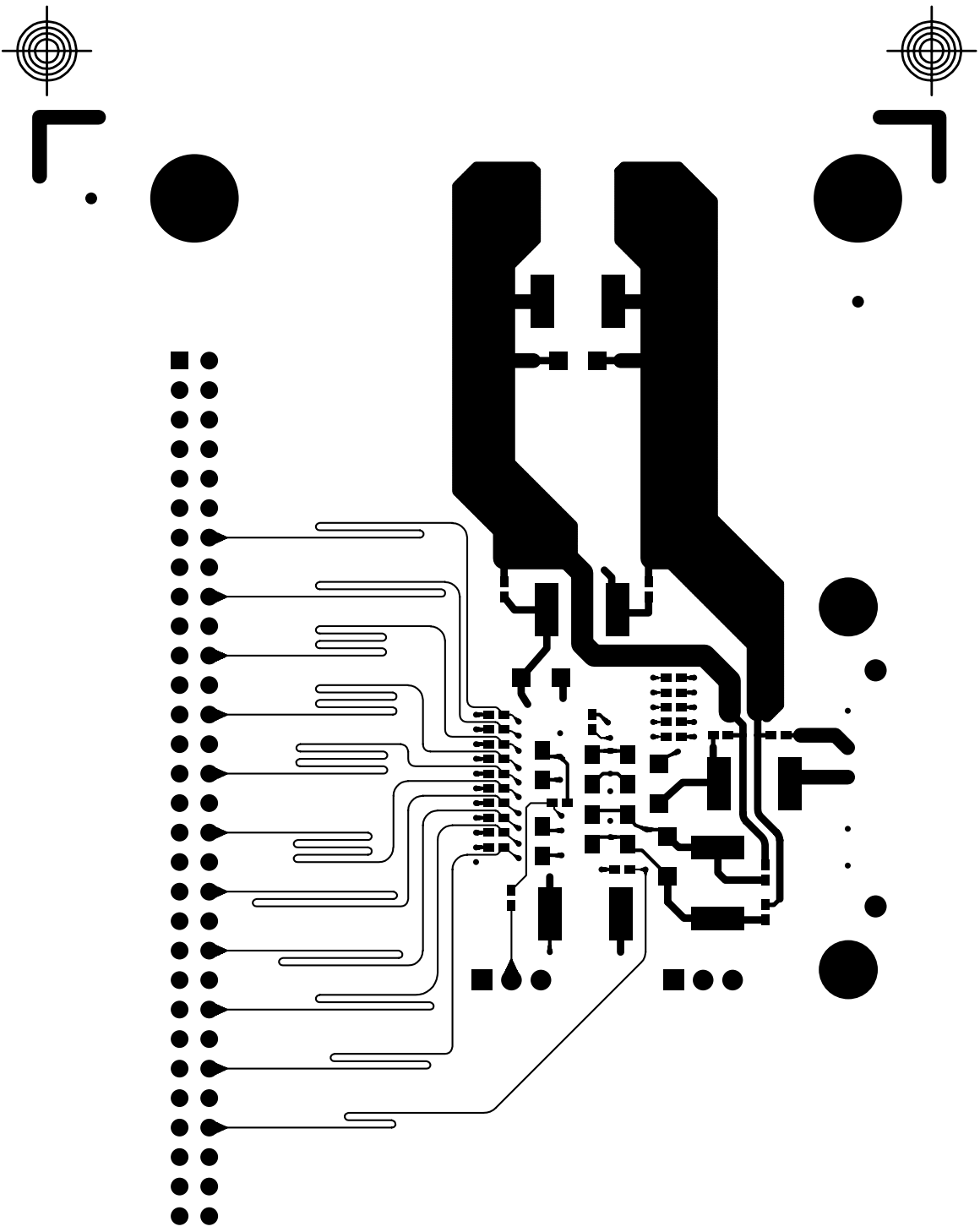
NATIONAL SEMICONDUCTOR CORP.
HSL TX 8 BIT
PWB HSL8TX REV 1
LAYER 1 - PRIMARY ASSY SIDE



NATIONAL SEMICONDUCTOR CORP.
HSL TX 8 BIT
PWB HSL8TX REV 1
LAYER 2 - GROUND PLANE

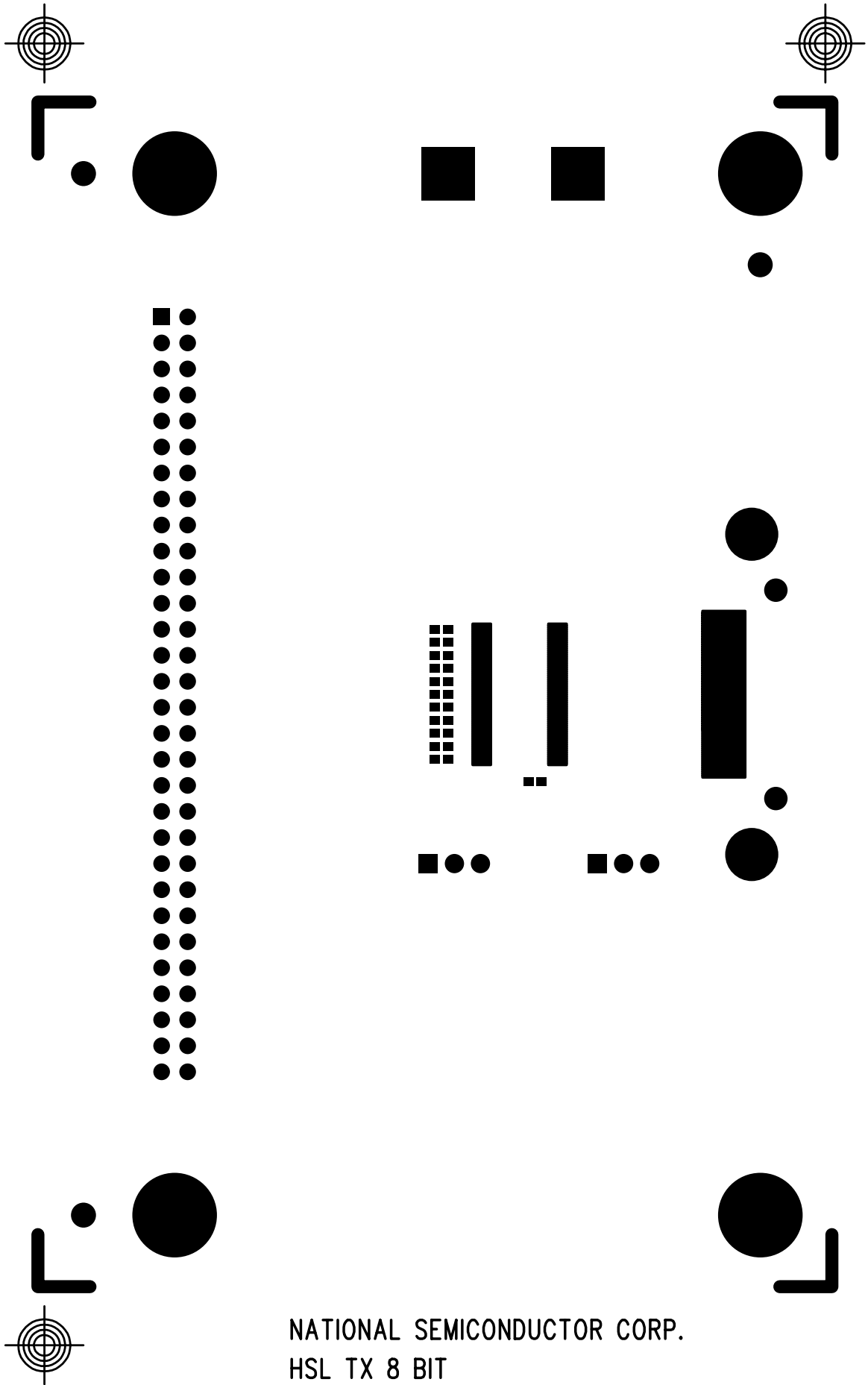


NATIONAL SEMICONDUCTOR CORP.
HSL TX 8 BIT
PWB HSL8TX REV 1
LAYER 3 - POWER PLANE

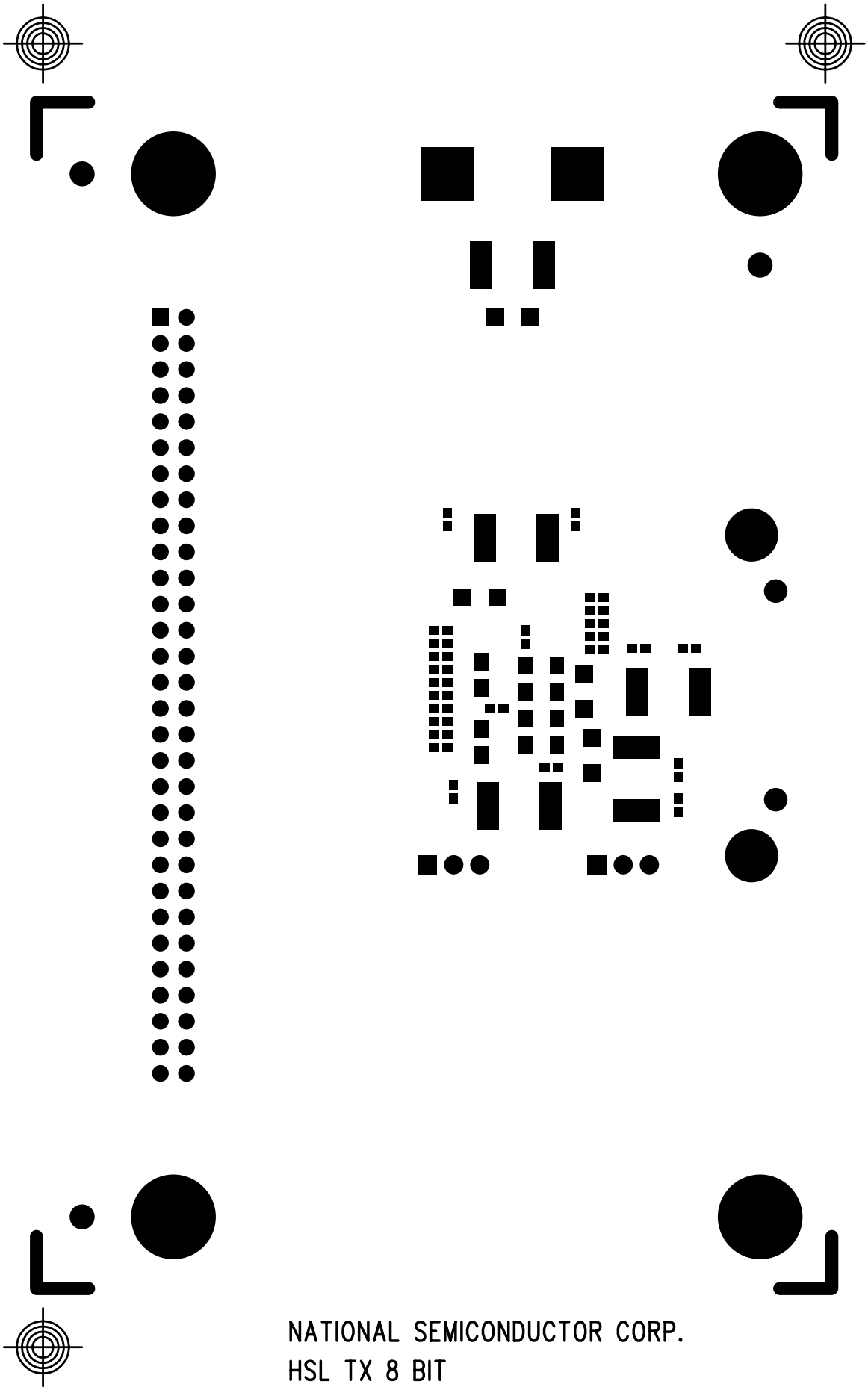


PWB HSL TX 8 BIT REV 1

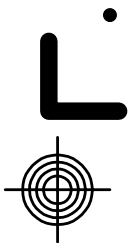
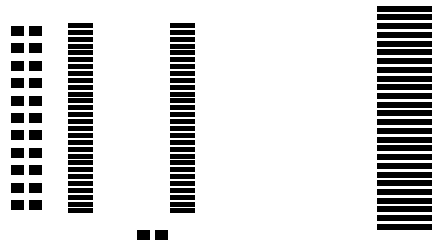
NATIONAL SEMICONDUCTOR CORP.
HSL TX 8 BIT
PWB HSL8TX REV 1
LAYER 4 - SECONDARY ASSY SIDE



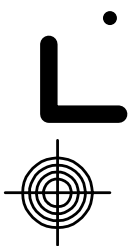
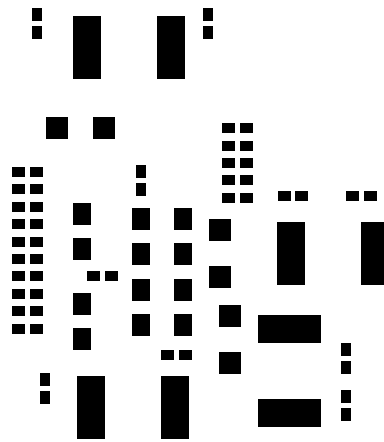
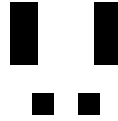
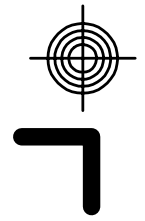
NATIONAL SEMICONDUCTOR CORP.
HSL TX 8 BIT
PWB HSL8TX REV 1
SOLDER MASK - PRIMARY SIDE



NATIONAL SEMICONDUCTOR CORP.
HSL TX 8 BIT
PWB HSL8TX REV 1
SOLDER MASK - SECONDARY SIDE



NATIONAL SEMICONDUCTOR CORP.
HSL TX 8 BIT
PWB HSL8TX REV 1
PASTE MASK - PRIMARY SIDE



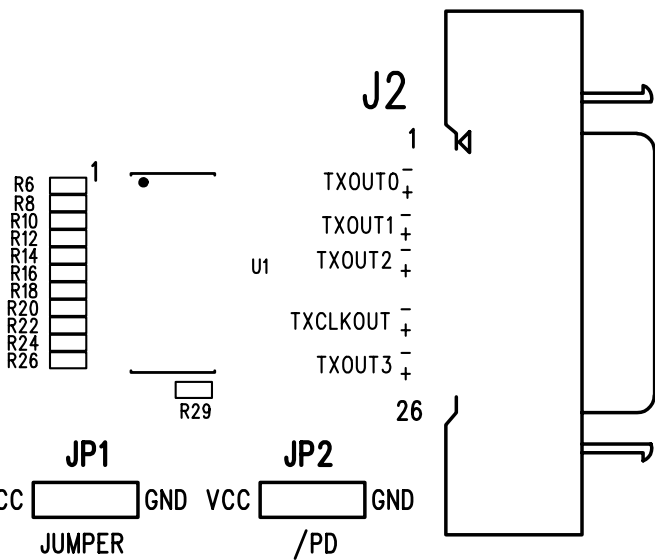
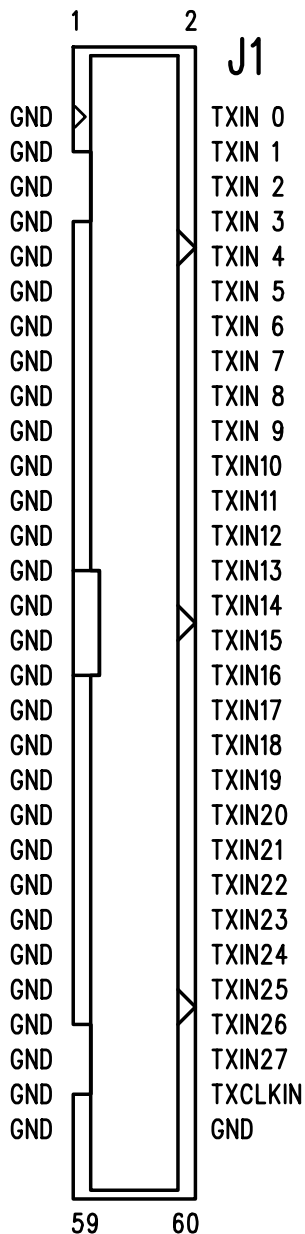
NATIONAL SEMICONDUCTOR CORP.
HSL TX 8 BIT
PWB HSL8TX REV 1
PASTE MASK - SECONDARY SIDE



TP1
VCC

TP2
GND

+3.6V MAX



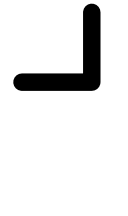
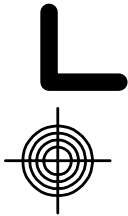
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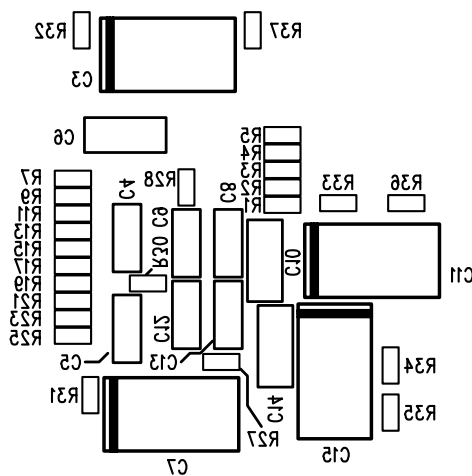
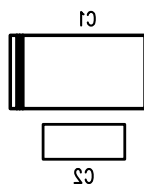
National
Semiconductor
HSL TX 8 BIT

MADE IN U.S.A.

ASSY HSL TX 8 BIT REV

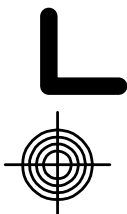


NATIONAL SEMICONDUCTOR CORP.
HSL TX 8 BIT
PWB HSL8TX REV 1
SILKSCREEN – PRIMARY SIDE



2/N

MDC



NATIONAL SEMICONDUCTOR CORP.
HSL TX 8 BIT
PWB HSL8TX REV 1
SILKSCREEN - SECONDARY SIDE