BIAS TEE CALIBRATION SET-UP

HP 8757C Scalar Network Analyzer

HP 8350B Sweep Osc

HP 83592A RF Plug-in OUT

Pwr Splitter HP 11667A

HP 11664E Detector HP 11664E Detector

HP 85027B Dir Bridge

Bias Tee ZBFT-6G

50 ohm Load
EDM TEST FIXTURE
Chart 1. EMI IMMUNITY LEVEL
7400 NAND GATES

- Immune Level [dBm]
- Frequency [MHz]

- Vo=Vt1
- Vo=Vt2
- 70's Data
EMI IMMUNITY LEVELS

Chart 2. EMI IMMUNITY LEVEL
74ALS00 NAND GATES

Frequency [MHz]

Imune Level [dBm]

-10.0  -5.0   0.0   5.0   10.0   15.0   20.0   25.0   30.0

- Vo=Vt1
- - Vo=Vt2
- - - 70's Data
NAND vs. AND GATE IMMUNITY

Chart 1. EMI IMMUNITY LEVEL
7400 NAND GATES

- $V_o=V_{t1}$
- $V_o=V_{t2}$
- 70's Data

Frequency [MHz]

Chart 2. EMI IMMUNITY LEVEL
74ALS00 NAND GATES

- $V_o=V_{t1}$
- $V_o=V_{t2}$
- 70's Data

Frequency [MHz]

Chart 3. EMI IMMUNITY
74LS00 NAND GATES

- 99 Data
- 70s Data
- 70's Data

Frequency [MHz]

Chart 4. EMI IMMUNITY LEVEL
7408 AND GATES

- 99 Data
- 70s Data
- 70's Data

Frequency [MHz]
TTL vs. LS IMMUNITY LEVELS

Chart 5. EMI IMMUNITY LEVEL
7402 POS NOR GATES

Chart 6. EMI IMMUNITY LEVEL
74LS02 POS NOR GATES

Chart 7. EMI IMMUNITY LEVEL
7404 TOTEM POLE INVERTER

Chart 8. EMI IMMUNITY LEVEL
74LS04 TOTEM POLE INVERTER

DOD E3 Program Review
13 April 2000

D:/DODE3/NASA_DODE3.ppt
TP vs. OC IMMUNITY LEVELS

Chart 7. EMI IMMUNITY LEVEL
7404 TOTEM POLE INVERTER

Chart 8. EMI IMMUNITY LEVEL
74LS04 TOTEM POLE INVERTER

Chart 9. EMI IMMUNITY LEVEL
7405 OPEN COLLECTOR INVERTER

Chart 10. EMI IMMUNITY
74LS05 OPEN COLLECTOR INVERTER
Chart 11: EMI Immunity Level
7805 Voltage Regulator

Frequency [MHz]

V_o = V_T1
V_o = V_T2
70's Data

Immune Level [dBm]
SEVENTIES CHIP SET

<table>
<thead>
<tr>
<th>Type</th>
<th>Example Types</th>
<th>Number</th>
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</thead>
<tbody>
<tr>
<td>TTL</td>
<td>7400, 7402, 7404, 7405, 7408, 7432, 7450, 7473, &amp; 7479</td>
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<td>CMOS</td>
<td>4011A, 4011B, 4007A, 4007B, 4001A, &amp; 4013A</td>
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<td>Line drv/rcvr.</td>
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<td>Voltage Reg.</td>
<td>(3-pin) 309, 320, 78M05, (8-pin) 300, &amp; 305</td>
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<tr>
<td>Comparators</td>
<td>306, 311, 339, 360, 710, &amp; 760</td>
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<td>TOTAL NUMBER TYPES</td>
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