INTEGRATED CIRCUIT IMMUNITY

DOD E³ Program Review
11-14 April 2000

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THRESHOLD DEFINITION

High

2.0 v

Unk

0.8 v

Low

Vout

SIG

Vt1 Immunity Lvl

Vt2 Immunity Lvl

EMI
THRESHOLD DEFINITION

Vout

2.0 v

0.8 v

EMI
SIG
ZBFT-6G, S/N 1-20

ZBFT-6G, S/N 1-20

dB Gain

GHz

Series 1
Series 2
Series 3
Series 4
Series 5
Series 6
Series 7
Series 8
Series 9
Series 10
Series 11
Series 12
Series 13
Series 14
Series 15
Series 16
Series 17
Series 18
Series 19
Series 20

DOD E3 Program Review
13 April 2000

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J. Sketoe, Boeing Co.
A. Clark, NASA, MFSC

Slide 7
EDM TEST FIXTURE
EMI IMMUNITY LEVELS

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

DOD E3 Program Review
13 April 2000
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
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

Immune Level [dBm]

Frequency [MHz]

- Vo=Vt1
- Vo=Vt2
- 70's Data
SEVENTIES CHIP SET

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<td>7400, 7402, 7404, 7405, 7408, 7432, 7450, 7473, &amp; 7479</td>
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<td>CMOS:</td>
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<td>Line drvr/rcvr:</td>
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<td>Comparators</td>
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<td>TOTAL NUMBER TYPES</td>
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