REV.	DESCRIPTION	DRAWN / APPD.	DATE
A	RF PREAMP + INPUT COMPARATOR CHANGES. ADDED NOTES 5 + 6.	RJ Ducar	7-19-82
B	ADDED UR5, UR6, UR7, + UR8	RJ Ducar	9-17-82
C	ADDED UR9 + UR10, MINOR CIRCUIT MODIFICATIONS.	RJ Ducar	8-22-83
D	ADDED UR11 + UR12 AND NOTE 8.	R J Ducar	3-11-85

RF PRE-AMP

FREQUENCY DISCRIMINATOR

THRESHOLD ADJ.

PULSE RESTRUCTURE

TRANSMITTER

LOCAL INPUT OR OUTPUT

A to C WILL TRUNCATE TRANSMISSON CONFLICTS

GROUND INPUT FOR NO DC OUT.

250 μH CB #1670-1 (x2)

33 μF 50 WVDC

NOTES

1. ALL IC'S ARE ON SOCKETS.
2. Fc ≈ 48 MHz.
3. ALL RESISTORS ¼ W 5% UON.
4. INPUT THRESHOLD IS ADJUSTED TO +100mV FOR RF. INPUTS (R1 = 10K) AND TO +1V FOR DC. INPUTS (R1 = 1.5K).
5. S SERIES CHIPS MAY BE SUBSTITUTED FOR F SERIES CHIPS UPON CHECKOUT.
6. FOR FAN-OUT CONFIGURATIONS DO NOT INSTALL ICs 7, 8, 12, 13, + 14. PULL-UP 8-3 TO +5V WITH 4.7KΩ.
7. UNUSED GATES HAVE GROUNDED INPUTS.
8. FOR 7.5 MHz VERSIONS: 50, 100, 65 nSEC. ONE SHOTS SHOULD BE 66, 132 + 87 nSEC.

REALIZED CONFIGURATIONS (CONT)

UR9 - FAN-OUT WITH DC INPUT + OUTPUT.
UR10 - FAN-IN WITH DC INPUT + OUTPUT.
UR11 - FAN-OUT WITH DC INPUT, 7.5 MHz
UR12 - FAN-OUT WITH RF INPUT PRE-AMP, 7.5 MHz

REALIZED CONFIGURATIONS

UR1 - REGULAR FAN-OUT WITH DC INPUT.
UR2 - REGULAR FAN-OUT WITH DC OUTPUT.
UR3 - REGULAR FAN-IN WITH DC OUTPUT.
UR4 - REGULAR FAN-OUT WITH RF INPUT PRE-AMP + DC OUTPUT.
UR5 - REGULAR FAN-OUT WITH RF INPUT PRE-AMP.
UR6 - REGULAR FAN-IN WITH RF INPUT PRE-AMP.
UR7 - REGULAR FAN-IN WITH RF INPUT PRE-AMP + DC OUTPUT
UR8 - REGULAR FAN-IN WITH DC INPUT

PRINTED CIRCUIT BOARD	
TITLE	DWG NO
SCHEMATIC	ED-35345
ARTWORK	BD-35346
MASTER DWG	BD-35347
ASSEMBLY DWG	BC-35592
OUTLINE DWG	6
SOLDER MASK	8
SILKSCREEN	8
PARTS LIST	6P

ITEM NO.	PART NO.	DESCRIPTION OR SIZE	QTY. REQ.
		PARTS LIST	

UNLESS OTHERWISE SPECIFIED			ORIGINATOR	ROBERT J. DUCAR	10-26-81
FRACTIONS	DECIMALS	ANGLES	DRAWN	T. SENGMANIVONG	11-4-81
±	±	±	CHECKED	RJ Ducar	2-15-82
			APPROVED	RJ Ducar	2-15-82

1. BREAK ALL SHARP EDGES 1/64 MAX.
2. DO NOT SCALE DWG.
3. DIMENSIONING IN ACCORD WITH ANSI Y14.5 STD's.
MAX. ALL MACHINED SURFACES

USED ON

MATERIAL-

FERMI NATIONAL ACCELERATOR LABORATORY
UNITED STATES DEPARTMENT OF ENERGY

ACCELERATOR CONTROLS
10 MEGABIT LINK - UNIVERSAL REPEATER
SCHEMATIC RF-101A

SCALE	FILMED	DRAWING NUMBER	REV.
	F 9/82	0818.00-ED-35345	D

FA 7/82 FB 9/82 FC 9/83