

THE FOLLOWING APPLY TO THIS PART/DRAWING:	FOLLOWING TOLERANCES APPLY
DESIGN CODE:	1. IN. DECIMALS ± .01 ± .00mm
	2. PL. DECIMALS, FRACTIONS ± .03", ± .05mm ± .132
	3. PL. DECIMALS ± .08" ± .1mm
	APPROVALS: $\pm .500$ DATE: 1-14-97
APPLICATIONS:	SMW
	DATE: 1-16-97 APPROV: JAF
	DATE: 1-16-97 APPROV: PMS

FMC Smith Meter Inc.
An FMC Corporation, San Gabriel City

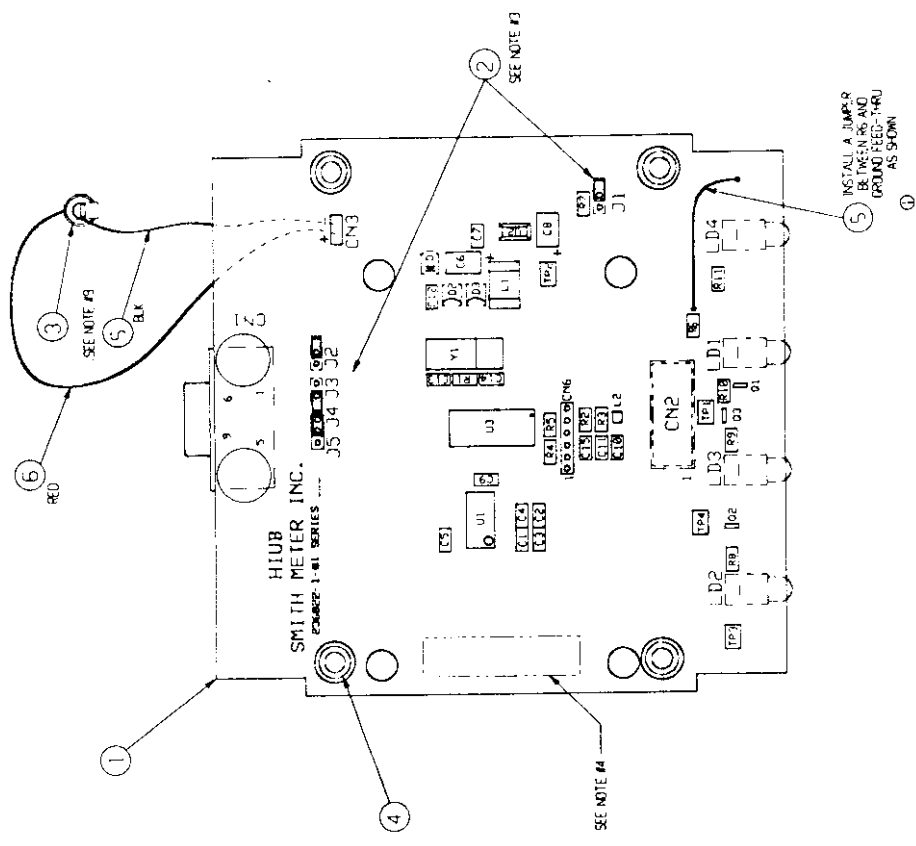
4. LAST DESIGNATION USED:
CN4, C15, U3, J4, L34, L2, U3, RIL, TP4, U3, Y1

NOTES:

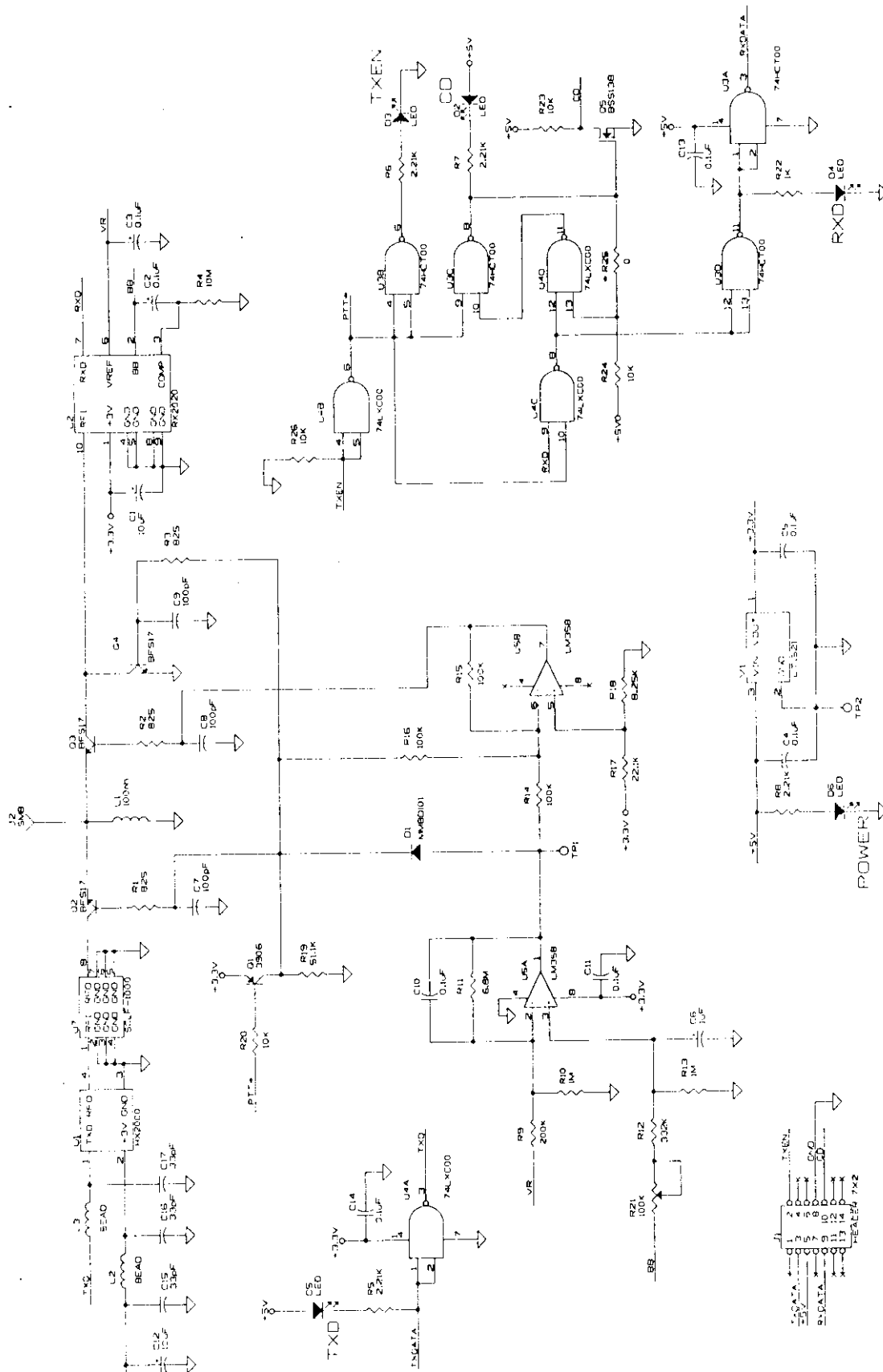
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PART NUMBER	QTY	DESCRIPTION	ITEM SYMBOL
236022101	1	BOARD P.C. BASE HIUB	1
646019401	10	CAPACITOR CER. 10UF 50V 10% X7R, 1206 S/M	C1-C5, C7, C9, C10, C12, C15
646019402	2	CAPACITOR CER. 20PF 50V 5% 1206 S/M	C13, C14
646019403	1	CAPACITOR CER. 1000PF 50V 5% NP0, 1206 S/M	C11
646019404	2	CAPACITOR TANT. 10UF 35V 10% CASE 0 S/M	C6, C8
646019405	4	CONNECTOR PLUG. P.C. JUMPER, RADIAL, 100 LS.	2
646019406	1	CONNECTOR 9 PIN D. RT. ANGLE PC MOUNT	CN1
646019407	1	CONNECTOR HEAD, 6 POS (1 X 5), SIP, 100 LS	CN6
646019408	1	CONNECTOR HEAD, 103308 2, 14 POS, SHROD, 1 LS	CN2
646019409	1	CONNECTOR HEAD, 3 PIN STRIGHT POST, SIP	J4
646019410	3	CONNECTOR HEAD, 2 PIN STRIGHT POST, SIP	J1-J3
646019411	1	CONNECTOR BULK-HEAD JACK, 3.5MM	3
646019412	1	CRYSTAL 20.00 MHZ 50 PPM S/M	Y1
646019413	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019414	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019415	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019416	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019417	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019418	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019419	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019420	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019421	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019422	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019423	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019424	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019425	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019426	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019427	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019428	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019429	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019430	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019431	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019432	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019433	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019434	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019435	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019436	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019437	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019438	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019439	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019440	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019441	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019442	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019443	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019444	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019445	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019446	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019447	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019448	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
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646019450	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019451	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
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646019458	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019459	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019460	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019461	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019462	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019463	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019464	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019465	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019466	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019467	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019468	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019469	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019470	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019471	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019472	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019473	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019474	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019475	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019476	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019477	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019478	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019479	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019480	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019481	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019482	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019483	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019484	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019485	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019486	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019487	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019488	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019489	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019490	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019491	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019492	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019493	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019494	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019495	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019496	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019497	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019498	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019499	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1
646019500	1	DIODE 1N4148, 40V 1.0A, SMD S/M	D1

- NOTES:
1. BOARD MUST CONFORM TO SMITH-METER SPEC. #236022702, DO NOT CONFORMAL COAT.
 2. MOUNT THE FOLLOWING ON SOLDER SIDE OF BOARD: CN1, CN2, J1-J3, L01-L04.
 3. FOR JUMPER PLUGS, ITEM #2, INSTALL ONE ON J4, INSTALL J1-J3 IN NEUTRAL POSITIONS (ONLY ONE POST CONNECTED).
 4. PLACE SERIAL NUMBER LABEL IN AREA SHOWN.
 5. REFERENCE SCHEMATIC #236022701.
 6. FINAL TEST PER TC-2403.
 7. USE FILE #236022750 FOR SOLDER PASTE STENCIL.
 8. BURN-IN PER SPEC. #236022704.
 9. CUT RED WIRE (ITEM #5) AND BLACK WIRE (ITEM #5) TO 250" AND STRIP BOTH ENDS OF EACH WIRE TO .125". SOLDER THE RED WIRE FROM CN1 TO THE POSITIVE TERMINAL OF J25. SOLDER THE BLACK WIRE FROM CN3 TO THE NEGATIVE TERMINAL OF J25.



FPMG	
HUB BOARD ASSEMBLY	
DATE	236022-1 01
REV	1
APP'D	
CHECKED	
TESTED	
INSPECTED	
REWORKED	
DISPOSED	

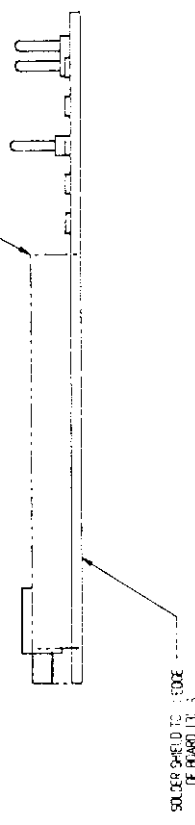


FMC 236025-7-01	
SCHEMATIC, DATA RADIO BOARD	
DATE	TOP-GO RF MODEM OPTION
REV	1
SIZE	10.00
SCALE	1:1
NO	236025-7-01
REV	1
ECN NO.	199900560
REV	1

THE FOLLOWING TOLERANCES APPLY TO THIS PART/DRAWING DES IN CODE	
RESISTORS	1% PL, 5% FR
CAPACITORS	1% PL, 5% FR
INDUCTORS	1% PL, 5% FR
DIODES	1% PL, 5% FR
TRANSISTORS	1% PL, 5% FR
IC'S	1% PL, 5% FR
RELAYS	1% PL, 5% FR
CONNECTORS	1% PL, 5% FR
WELDS	1% PL, 5% FR
ANGLES	± 5°
APPROVAL	
APPLICATIONS	

NOTES:

1. ZERO OHM JUMPER FOR LAT-ED CO. WITH JUMPER REMOVED CO FOLLOWS RXD.
2. LAST USED REFERENCE: C17, D6, J2, L3, D5, R26, U7, V1.



PART NUMBER	QTY	DESCRIPTION	ITEM/SYMBOL
23602420	1	BOARD P.C. BASE DATA RADIO	1
646019401	8	CAPACITOR CER. 1UF 50V 10% XPR. 1206 S/M	C11, C13, C14
646019405	3	CAPACITOR CER. 1UF 50V 5% NPO. 1206 S/M	C7, C8
646019420	3	CAPACITOR CER. 330F 50V 5% 1206 S/M	C15, C17
646021462	2	CAPACITOR TAN. 1UF 35V 10% CASE 0 S/M	C1, C12
646021470	1	CAPACITOR TAN. 0.05 35V 20% CASE 0 S/M	C6
6462724183	1	CONNECTOR HEAD. 4 POS. 17 X1 VERT. 1 LLS	J1
6462724284	1	CONNECTOR JACK 350 3T ANGLE. PEG SOLDERABLE	J2
646571444	1	DIODE SCHOTTKY MDO101. HOT CARRIER 500 123 01	D1
6465967407	1	FILTER LOW PASS. 10MHz 51M YN161 CASE	U7
6465837437	2	INDUCTOR BEAD. 45 OHM 0.25MHz. TYPE 43 MAT.	L2, L3
646587438	1	INDUCTOR COIL. 100MHz 0.25MHz. S/M	L1
6465884410	1	INT CIRCU BOARD. 100MHz. DUAL OFF INP/UT. 50-8	J5
6465884413	1	INT CIRCU BOARD. 100MHz. DUAL HAND. SOLIC-14	U3
6465884450	1	INT CIRCU BOARD. 745C400. 2-INP/UT HAND SOLIC-14	U4
6465894465	1	INT CIRCU BOARD. 11521CST-3.3. 501-223 S/M	V1
6467094437	5	LED INO SUPER RED. 1/4. 1206 S/M	D2, D6
646922440	1	MODULE RECEIVER. 916.5 MHz RF S/M	U1
646922442	1	MODULE TRANSMITTER. 916.5 MHz RF S/M	U2
6469614473	1	POINT-TO-PT. FILM. 130K. 5 TPN. 1/4 WU S/M	R21
646972440	1	RESISTOR FILM. 10 K. 1/4 W 1% 1206 S/M	R22
646972445	4	RESISTOR FILM. 1 K. 1/4 W 1% 1206 S/M	R20, R23, R4, R5, R16
6469724466	2	RESISTOR FILM. 100 K. 1/4 W 1% 1206 S/M	R12
6469724471	1	RESISTOR FILM. 322 K. 1/4 W 1% 1206 S/M	R17
6469724478	2	RESISTOR FILM. 10 K. 1/4 W 1% 1206 S/M	R10, R13
646972448	4	RESISTOR FILM. 21 K. 1/4 W 1% 1206 S/M	R5, R8
646972464	1	RESISTOR FILM. 8.25 K. 1/4 W 1% 1206 S/M	R18
646972478	1	RESISTOR FILM. 6.8 K. 1/4 W 5% 1206 S/M	R11
646972480	2	RESISTOR FILM. 250 K. 1/4 W 1% 1206 S/M	R9
646972481	1	RESISTOR FILM. 221 K. 1/4 W 1% 1206 S/M	R17
646972482	1	RESISTOR FILM. 511 K. 1/4 W 1% 1206 S/M	R19
646972483	3	RESISTOR FILM. 825 OHM. 1/4 W 1% 1206 S/M	R1, R3
6469724802	1	RESISTOR SPL. 10 W. 1/2 W 5% 1206 S/M	R4
206025701	AR	SCHEMATIC P.C. BOARD DATA RADIO	2
554359001	AR	SHIELD DATA RADIO BOARD	
230500702	AR	SPEC. MFG/OES. P.C. BOARD	
646582419	2	TERMINAL TEST. 50-OR TYPE. TUBRET. HEAD. 116 H	TPI, TP2
6465974405	1	TRANSISTOR 5550 3906 PNP VCEO=40V. 501-23	Q1
6465982404	3	TRANSISTOR 6C9. B85738. N-CH ENVO. 501-23 S/M	Q5
6465982417	3	TRANSISTOR 5550 3906 PNP VCEO=40V. 501-23 S/M	Q2, Q4
236374705	AP	FILE PWR SFCN11 DATA RADIO BOARD	R25

1. BOARD MUST CONFORM TO SMITH SPEC. #230506702.
2. PLACE SERIAL NO. LABEL ON SOLDER SIDE OF BOARD.
3. FINAL TEST PER SPEC. 10-2480.
4. REFERENCE SCHEMATIC #236025701.

[illegible]