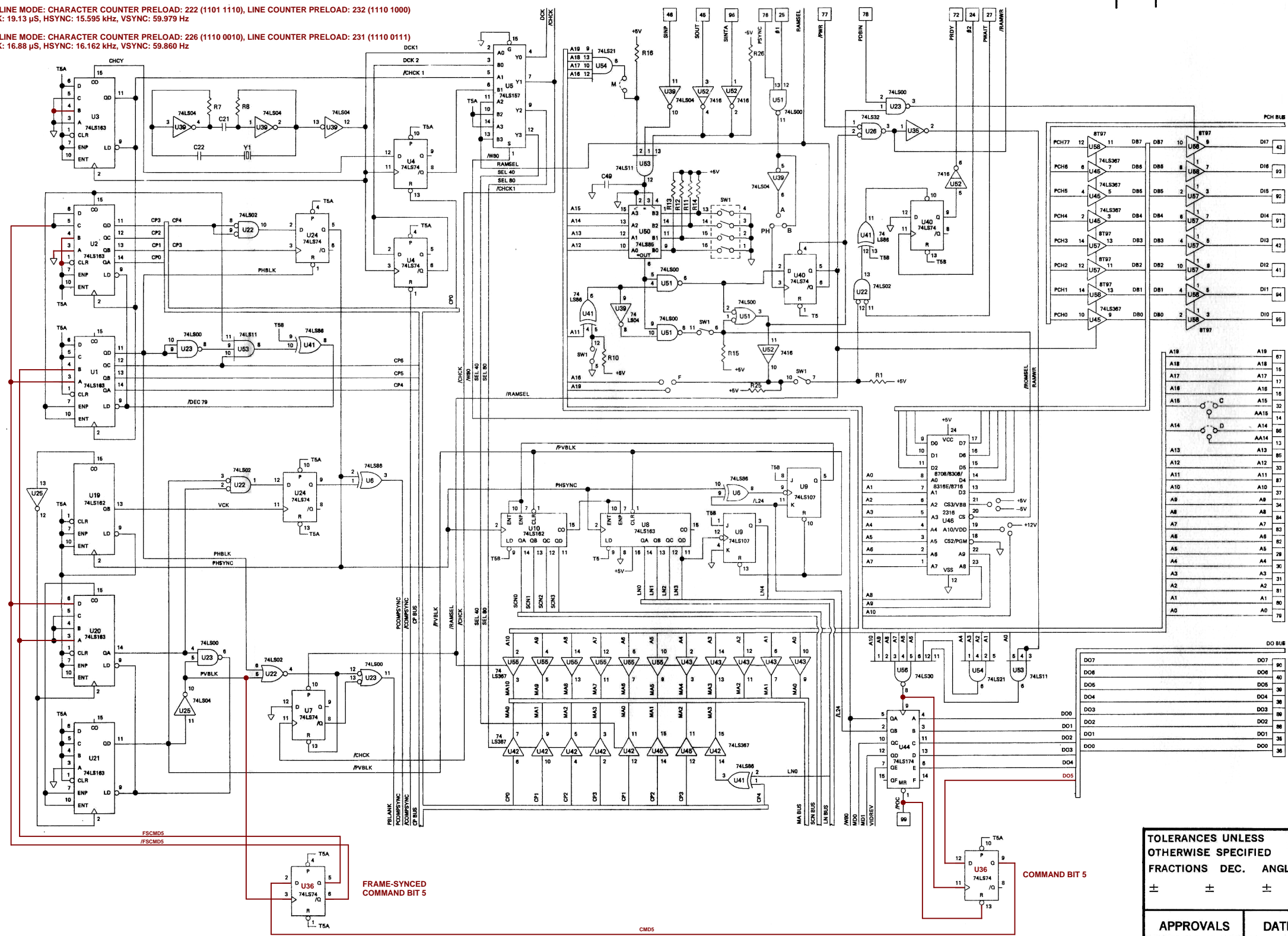


THE CHANGES ON THIS SHEET ARE FOR ALTERING THE CHARACTER CLOCK TO ALLOW FOR WIDER CHARACTERS, AND FOR CHANGES IN THE HORIZONTAL AND VERTICAL TIMING. A NEW COMMAND BIT 5 HAS BEEN ADDED TO SWITCH BETWEEN 24 AND 25 LINE MODE.

FOR REFERENCE, THE ORIGINAL VIO TIMING IS  
 HBLANK: 18.32 μS, HSYNC: 15.600 kHz, VSYNC: 60.000 Hz

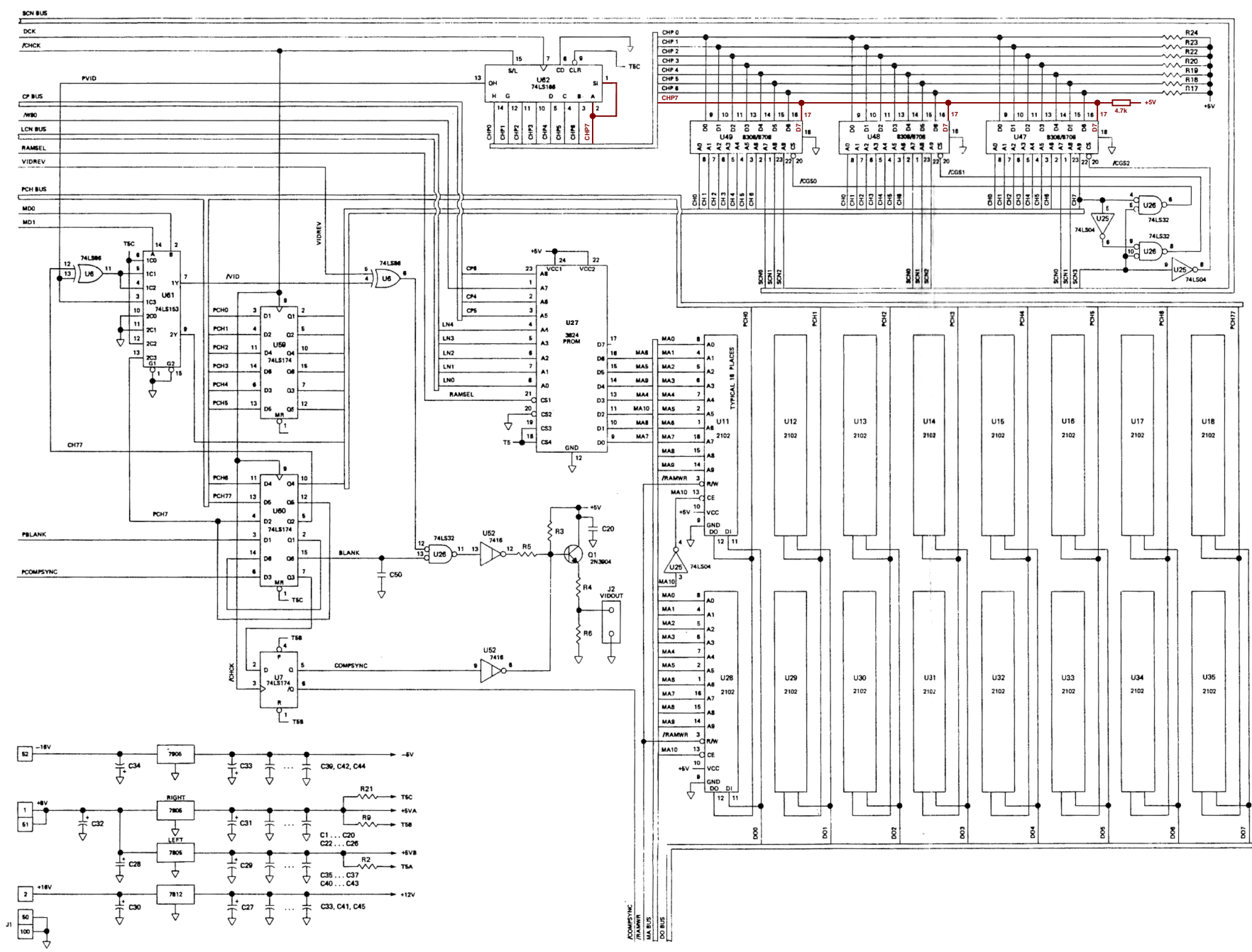
FOR 24-LINE MODE: CHARACTER COUNTER PRELOAD: 222 (1101 1110), LINE COUNTER PRELOAD: 232 (1110 1000)  
 HBLANK: 19.13 μS, HSYNC: 15.595 kHz, VSYNC: 59.979 Hz

FOR 25-LINE MODE: CHARACTER COUNTER PRELOAD: 226 (1110 0010), LINE COUNTER PRELOAD: 231 (1110 0111)  
 HBLANK: 16.88 μS, HSYNC: 16.162 kHz, VSYNC: 59.860 Hz



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

TOLERANCES UNLESS OTHERWISE SPECIFIED FRACTIONS DEC. ANGLES ± ± ±		© 1977 IMSAI MFG. CORP., SAN LEANDRO, CA. ALL RIGHTS RESERVED WORLDWIDE MADE IN U.S.A.	
APPROVALS	DATE	IMSAI SYSTEM VIO REV. 1 25-LINE HD MODS SCHEMATIC DIAGRAM	
DRAWN		SCALE	SIZE DRAWING NO.
CHECKED		<b>B</b>	
DO NOT SCALE DRAWING		SHEET 1 OF 2	



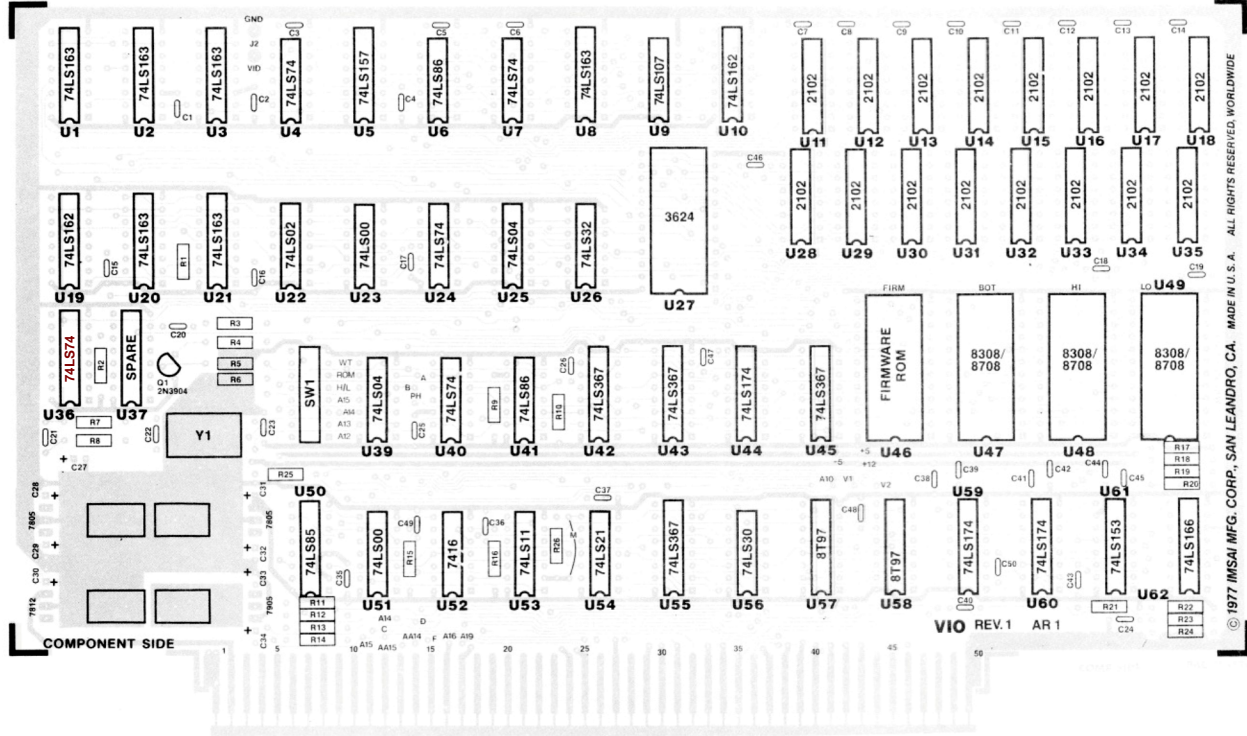
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
0	ORIGINAL REV. 1	6/77	

U1 THRU U3	74LS163	U62	74LS166
U8		C1 THRU C20	
U20		C23 THRU C26	.1 uF
U21		C35 THRU C48	
U4			
U7	74LS74		
U24			
U36			
U40			
U5	74LS157	C21	.001 uF
U6	74LS86	C49	
U41		C22	20 pF
U9	74LS107	C27	
U10	74LS162	C28 THRU C34	2.2 uF 25V
U11 THRU U18	2102 AL-4	C50	470 pF
U28		Q1	2N3904
U35		R1 THRU R10	
U22	74LS02	R16	2.2K 1/4W
U23	74LS00	R25	
U51		R26	
U25	74LS04	R2	1K 1/4W
U39		R9	
U26	74LS32	R21	
U27	3624 W/ VIO MAP SPARE	R3	470 1/4W
U37		R7	
U42		R8	
U43	74LS367	R4	100 1/4W
U45		R5	150 1/4W
U55		R6	
U44		R17	
U59	74LS174	R17 THRU R20	
U60		R20	4.7K 1/4W
U46	2316 SMP/80.0	R22	
U47		R24	
U49 THRU U50	8308/8708	S1	8 POSITION DIP
U50	74LS85		
U52	7416	Y1	16.000 MHZ XTAL
U53	74LS11		
U54	74LS21		
U56	74LS30		
U57	8T97		
U58			
U61	74LS153		

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FRACTIONS DEC. ANGLES			
± ± ±			
APPROVALS	DATE	IMSAI SYSTEM VIO REV. 1 <b>25-LINE HD MODS</b> SCHEMATIC DIAGRAM	
DRAWN		SCALE	SIZE DRAWING NO.
CHECKED			<b>B</b>
		DO NOT SCALE DRAWING SHEET 2 OF 2	



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
0	ORIGINAL REV. 1	6/77	



U1	74LS163	U61	74LS153
U3	74LS163	U62	74LS166
U8	74LS163	C1	
U20	74LS163	THRU	
U21	74LS163	C20	
U4	74LS74	C23	
U7	74LS74	THRU	.1 uF
U24	74LS74	C26	
U36	74LS157	C35	
U40	74LS157	THRU	
U5	74LS157	C48	
U6	74LS86	C21	.001 uF
U41	74LS86	C49	
U9	74LS107	C22	20 pF
U10	74LS107	C27	
U19	74LS162	THRU	2.2 uF 25V
U11	74LS162	C34	
U18	74LS162	C50	470 pF
U28	2102 AL-4	Q1	2N3904
U29	2102 AL-4	R1	
U30	2102 AL-4	R10	
U31	2102 AL-4	THRU	2.2K 1/4W
U32	2102 AL-4	R16	
U33	2102 AL-4	R25	
U34	2102 AL-4	R26	
U35	2102 AL-4	R2	
U49	2102 AL-4	R9	1K 1/4W
U46	FIRMWARE ROM	R21	
U47	8308/8708	R3	
U48	8308/8708	R7	470 1/4W
U48	8308/8708	R8	
U48	8308/8708	R4	100 1/4W
U48	8308/8708	R5	150 1/4W
U48	8308/8708	R6	
U48	8308/8708	R17	
U48	8308/8708	THRU	4.7K 1/4W
U48	8308/8708	R20	
U48	8308/8708	R22	
U48	8308/8708	R23	
U48	8308/8708	R24	
U50	74LS85	S1	8 POSITION DIP
U52	7416	Y1	16.0000 MHZ XTAL
U53	74LS11		
U54	74LS21		
U56	74LS30		
U57	8T97		
U58	8T97		

TOLERANCES UNLESS OTHERWISE SPECIFIED	
FRACTIONS DEC.	ANGLES
± ± ±	
APPROVALS	DATE
DRAWN	
CHECKED	

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IMSAI SYSTEM			
VIO REV. 1 25-LINE HD MODS			
ASSEMBLY DIAGRAM			
SCALE	SIZE	DRAWING NO.	
	B		
DO NOT SCALE DRAWING			SHEET 2 OF 2