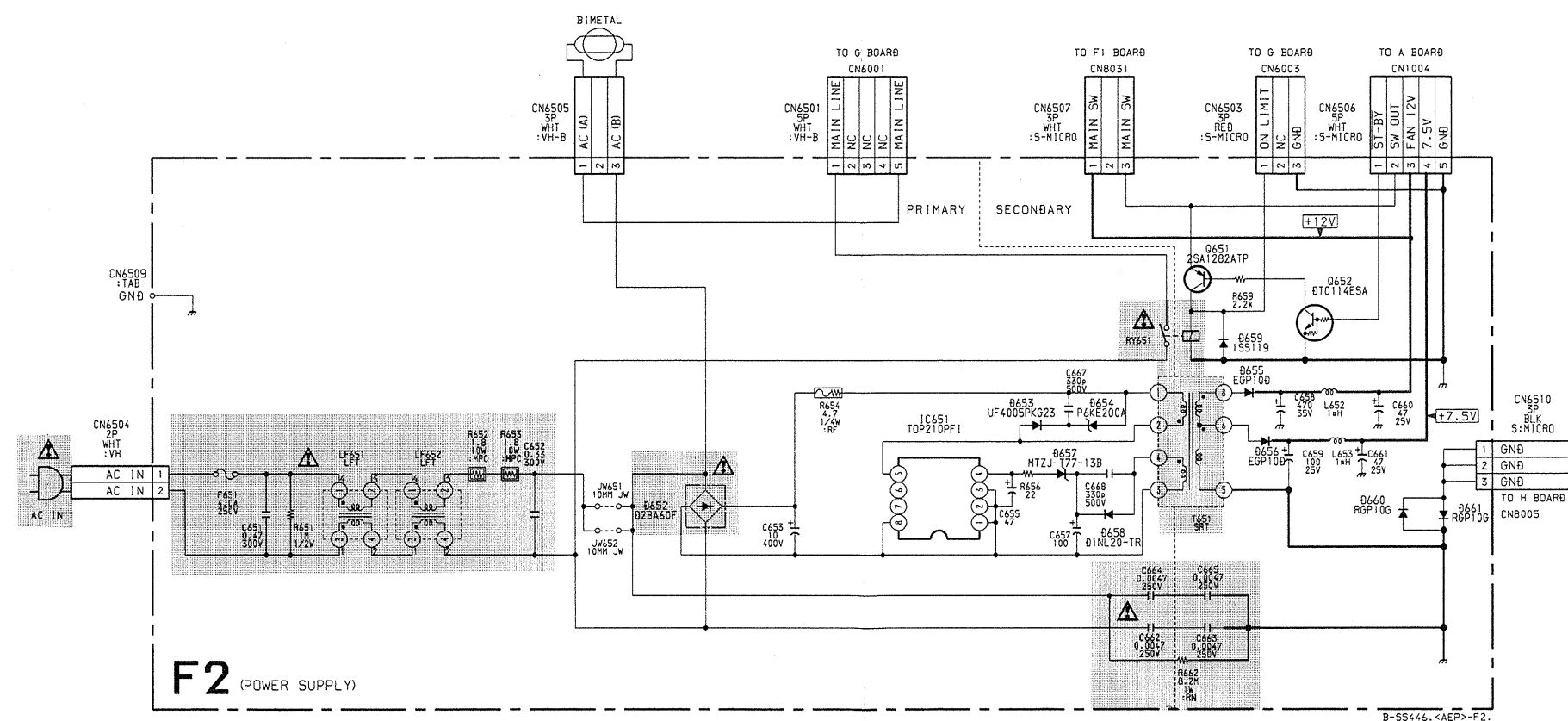
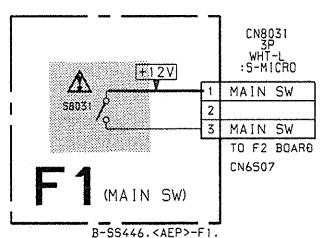
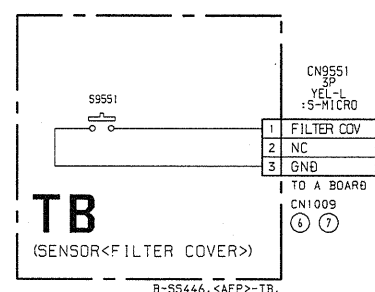
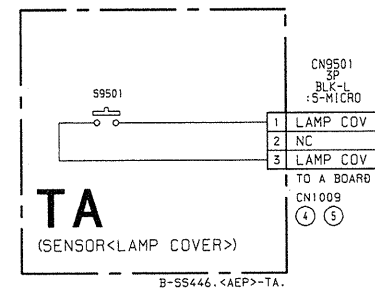


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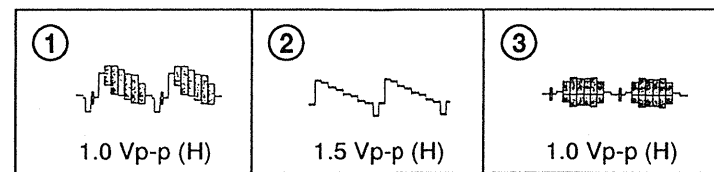




F2 BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]
IC651	4	5.7
	5	237.2
	5	8.9
Q651	B	8.1
	C	8.9
Q652	B	4.2
	C	0

J BOARD WAVEFORMS



J BOARD VOLTAGE LIST

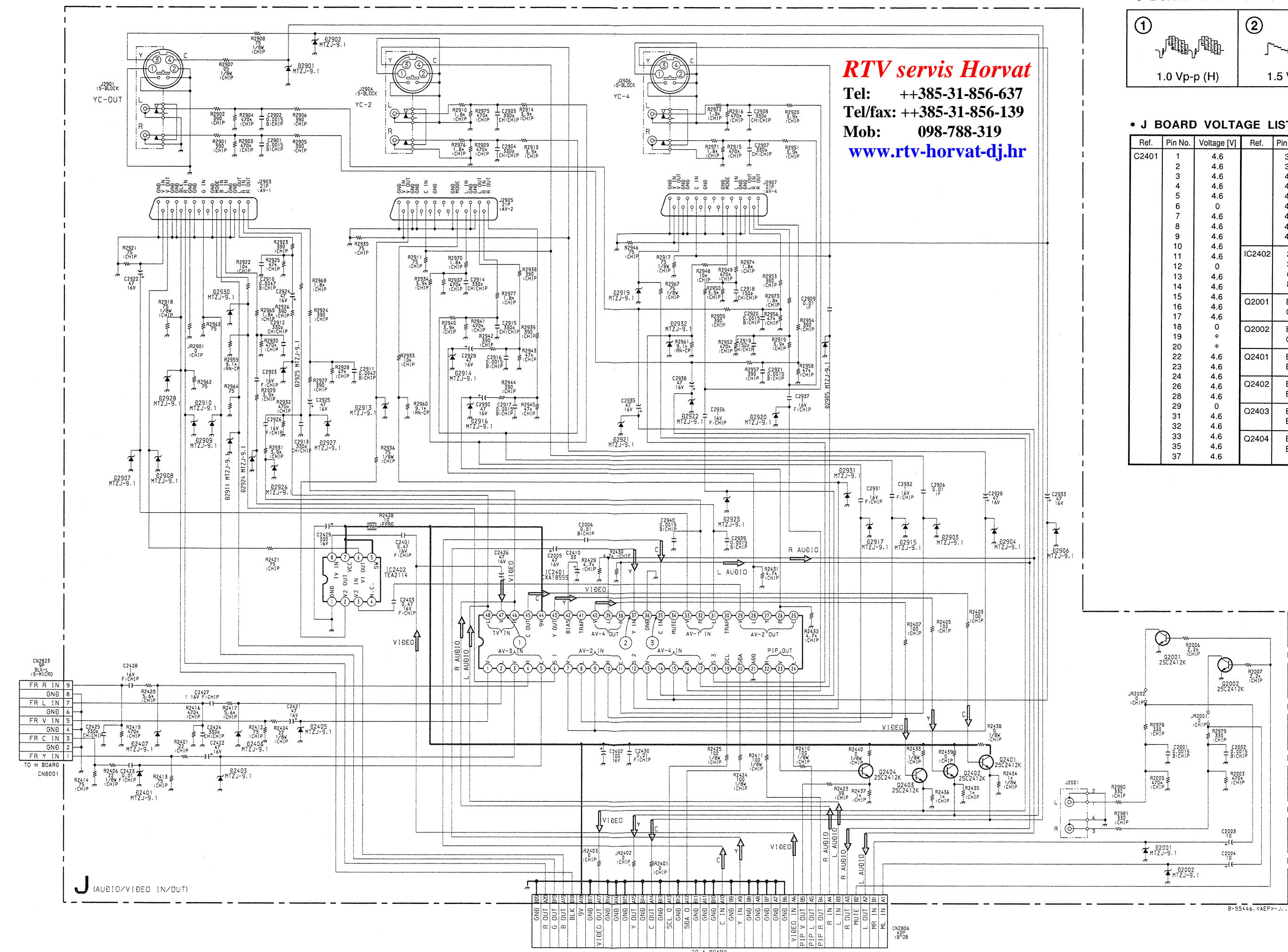
Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
C2401	11	4.6	IC2402	2	2.1
	2	4.6		3	2.8
	3	4.6		6	1.9
	4	4.6		8	2.3
	5	4.6		8	2.3
	6	0		11	4.6
	7	4.6		12	0
	8	4.6		13	4.6
	9	4.6		14	4.6
	10	4.6		15	4.6
11	4.6	16	4.6		
12	0	17	4.6		
13	4.6	18	0		
14	4.6	19	*		
15	4.6	20	*		
16	4.6	22	4.6		
17	4.6	23	4.6		
18	0	24	4.6		
19	*	26	4.6		
20	*	28	4.6		
22	4.6	29	0		
23	4.6	31	4.6		
24	4.6	32	4.6		
26	4.6	33	4.6		
28	4.6	35	4.6		
29	0	37	4.6		
31	4.6				
32	4.6				
33	4.6				
35	4.6				
37	4.6				

H BOARD VOLTAGE LIST

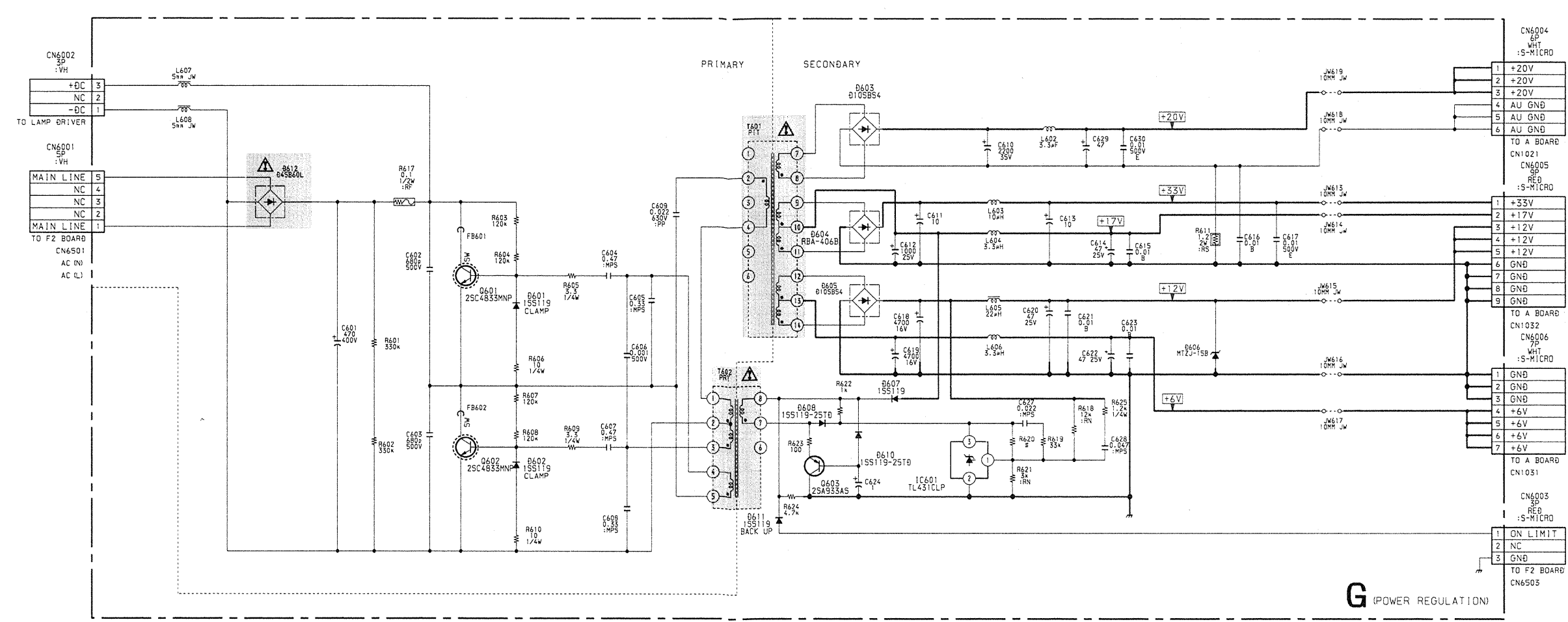
Ref.	Pin No.	Voltage [V]
IC8001	1	4.4
	2	4.5

G BOARD VOLTAGE LIST

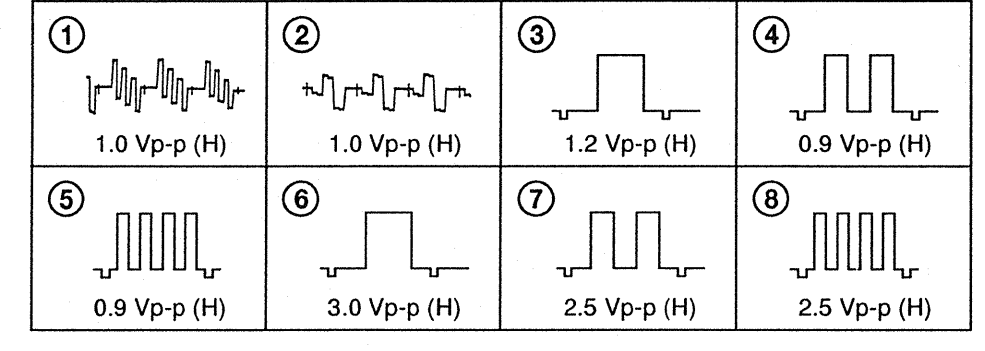
Ref.	Pin No.	Voltage [V]
IC601	1	2.5
	3	13.7
	3	83.9
Q601	B	180.3
	C	84.6
	C	84.6
Q602	B	0
	C	84.8
	E	0.6
Q603	B	14.3
	E	14.4



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• A (2/3) BOARD WAVEFORMS



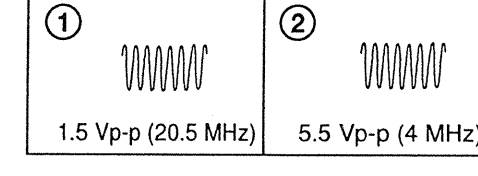
• A (2/3) BOARD VOLTAGE LIST

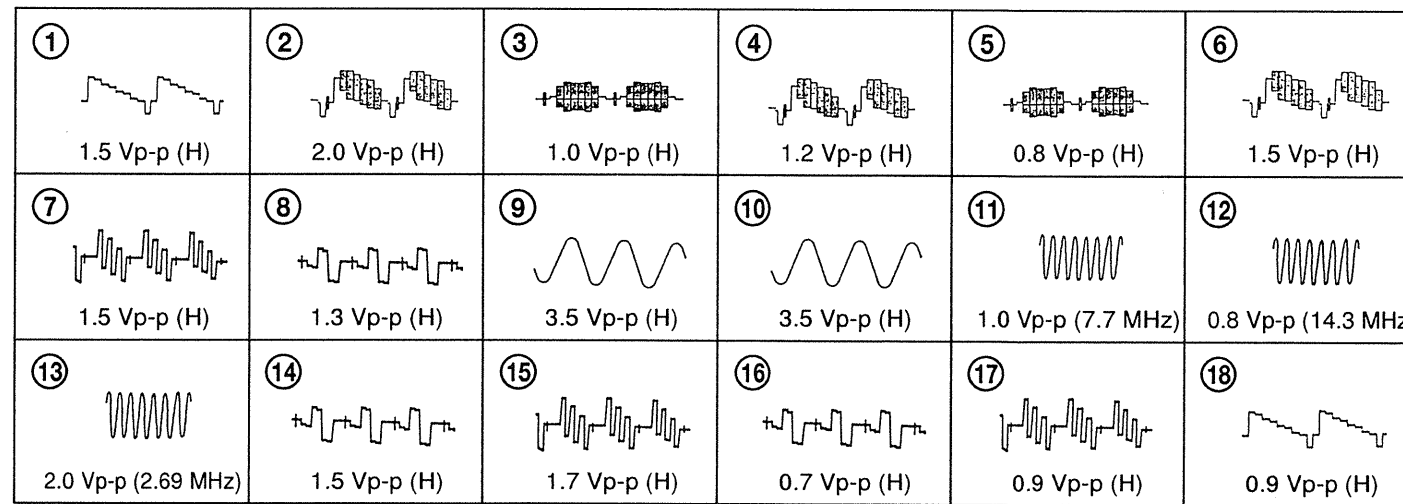
Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
IC1030	1	2.7	27	4.4		61	2.4		25	4.1		5	4.0	
	3	2.1	35	4.3		62	3.5		35	0		3	4.3	
	4	3.8	36	4.3		63	2.6		36	0		4	4.3	
	5	3.8	37	4.3	IC1031	3	5.3	Q1047	B	0.2		5	4.0	
	6	2.3	38	4.4		4	4.4		34	4.4	Q1048	C	4.0	
	7	3.8	39	4.4		5	4.4		35	4.7		6	4.3	
	8	2.1	40	4.4		6	4.4		36	0		7	4.3	
	9	3.8	41	4.3		7	5.3		37	0.1		8	4.9	
	11	0.9	43	4.3		14	0		38	1.1		9	0	
	12	1.9	44	4.3		17	0		39	0.1		10	0.3	
	13	0.7	45	4.3		18	0		40	0.3		11	0	
	14	5.0	47	4.3		19	0		41	0.2		12	0	
	15	5.0	48	4.3		20	0		42	0.6		13	4.9	
	16	5.0	49	4.3		21	0		43	4.7		14	0	
	17	5.0	52	4.5		22	0	Q1043	E	2.2	Q1049	E	1.3	
	20	0	53	2.6		23	0		44	4.7		15	0	
	21	0	54	2.9		24	0.1	Q1044	B	2.0	Q1050	B	0.3	
	22	2.2	55	7.3		25	0		45	2.8		16	0	
	23	2	56	7.6		26	2.0	Q1045	E	0		17	0	
	24	3.5	57	0.9		27	2.1		46	0		18	0	
	25	3.2	58	0.7	IC1032	1	6.2		47	0.9		19	0	
						2	6.2		48	1.6		20	0	
						3	6.2		49	4.8		21	0	
						4	0		50	4.4		22	0	
						13	4.5		51	0		23	0	
						14	4.5		52	0		24	0	
						15	0.6		53	0		25	0	
									54	4.4		26	0	
									55	4.6		27	0	
									56	0		28	0	
									57	0		29	0	
									58	0		30	0	
									59	0		31	0	
									60	0		32	0	

• A (3/3) BOARD VOLTAGE LIST

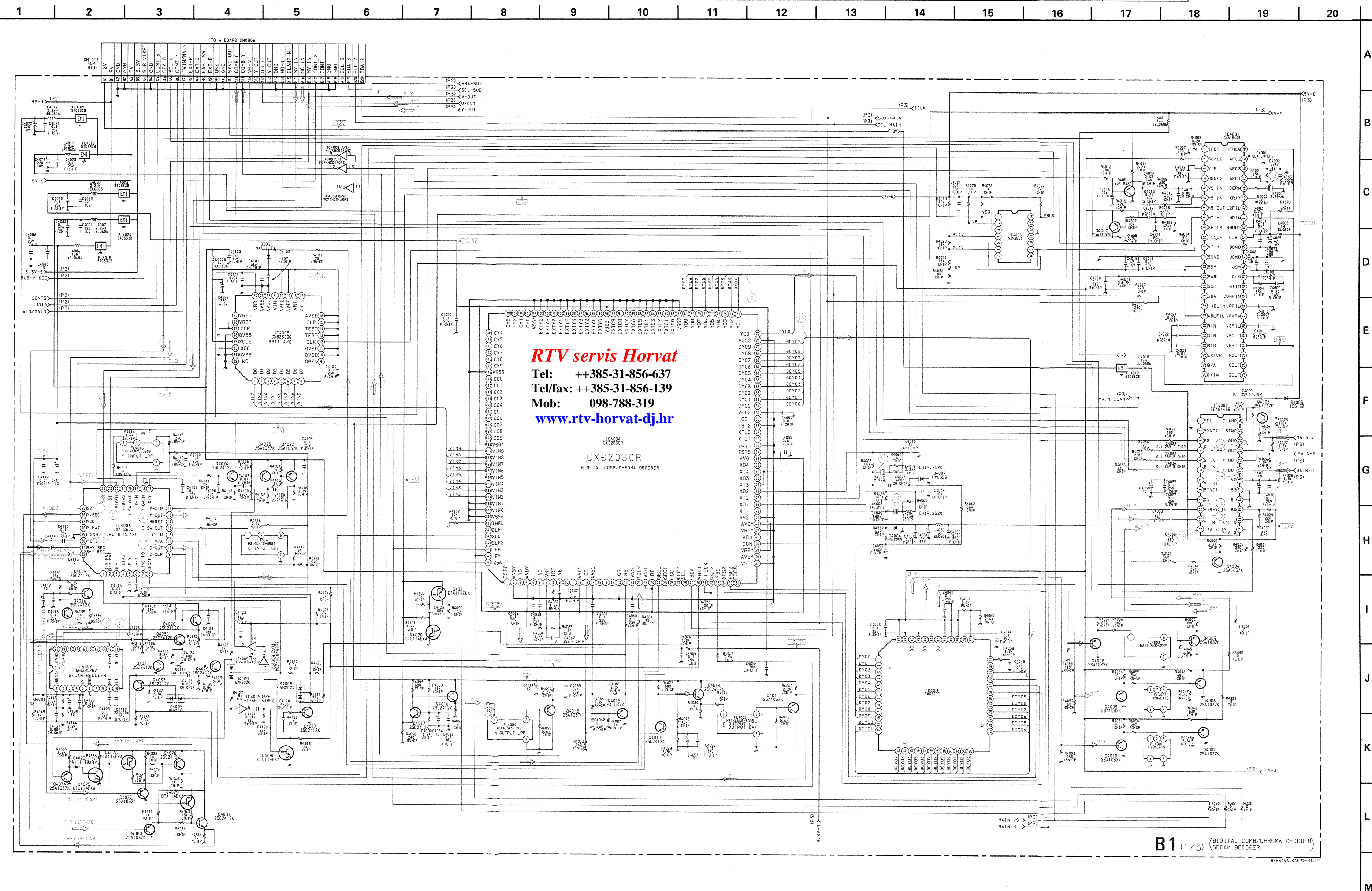
Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
IC1001	1	0	8	*		34	0.2		61	*		33	0.2		9	0		Q1058	B	0.4	Q1060	E	0		3	4.9
	2	0	9	*		35	1.5		62	0		34	1.8		10	0.3		C	4.9		C	0		4	4.5	
	3	4.9	10	*		36	4.9		63	0		35	0		11	1.8	Q1053	B	0.4	Q1061	B	0		5	0.7	
	4	3.7	11	*		37	0.1		64	*		38	1.3		13	0.2		C	0		C	0		6	4.9	
	7	0.1	12	*		38	1.1		65	*		39	0.1		14	0.3	Q1054	B	3.8	Q1062	B	0		7	4.9	
	8	0.1	13	*		39	4.4		66	0		40	4.1		16	0.3		C	3.5	Q1062	B	0.2		8	4.9	
	9	0.9	14	*		40	4.4		67	*		41	4.1		17	0.3		C	0	Q1062	C	0.1		9	0	
	10	0.1	15	*		41	0.2		68	*		42	4.1		18	0.2	Q1055	B	-1	Q1064	B	0		10	0	
	24	0.1	16	*		42	0.6		69	*		43	0		18	0		C	0	Q1064	C	0		11	4.9	
	25	4.9	17	*		43	4.7		70	*		44	4.2		19	0.5	Q1056	B	3.8	Q1065	C	0.1		12	0	
	28	2.5	18	0		44	4.7		71	0		45	4.2		20	0.3		C	12.3	Q1065	B	0.4		13	4.9	
	29	2.1	19	*		46	*		72	0		46	0		2	0		C	0	Q1065	B	3.8		14	0	
	47	4.5	20	4.4		47	*		73	0		47	0		3	0.1	IC1023	1	4.4	Q1066	B	0		15	0	
	49	3.8	21	0		48	1.7		74	0		48	1.7		4	0.1		4	4.5	Q1066	E	0.7		16	0	
	59	4.2	22	4.2		49	4.9		75	0		49	4.9		5	0.1		5	4.5	Q1066	E	0.7		17	0	
	60	4.5	23	4.1		50	4.4		76	0		50	4.4		6	4.5	IC1024	2	0.1	Q1067	B	0		18	0	
	61	3.5	25	0		52	4.4		77	0		51	0		6	4.5		6	4.5	Q1067	B	0		19	0	
	62	4.9	26	2.0		53	*		78	*		52	*		7	1.8		7	1.8	Q1067	E	0.7		20	0	
	63	0	27	2.1		54	4.4		79	0		53	0		9	0		8	0	Q1067	E	0.7		21	0	
	64	0	28	2.2		55	4.6		80	0		54	4.4		10	1.0		9	0	Q1067	B	0		22	0	
IC1019	1	*	29	0		56	0		81	0		55	4.6		10	2.9		10	2.9	Q1067	B	0		23	0	
	2	*	30	3.7		57	*		82	0		56	0		11	0.2		11	0.2	Q1067	E	0.7		24	0	
	3	*	31	2.2		58	*		83	0		57	*		12	0		12	0	Q1068	B	0		25	0	
	7	*	32	2.2		59	0		84	0		58	*		13	0		13	0	Q1068	E	0.7		26	0	
			33	4.8		60	*		85	0		59	0		14	0		14	0	Q1068	E	0.7		27	0	
									86	0		60	*		15	0		15	0	Q1069	B	1.6		28	0	
									87	0		61	*		16	0		16	0	Q1069	C	2.3		29	0	
									88	0		62	0		17	0		17	0	Q1070	B	4.0		30	0	
									89	0		63	0		18	0		18	0					31	0	
									90	0		64	0		19	0		19	0					32	0	
									91	0		65	0		20	0		20	0					33	0	

• A (3/3) BOARD WAVEFORMS

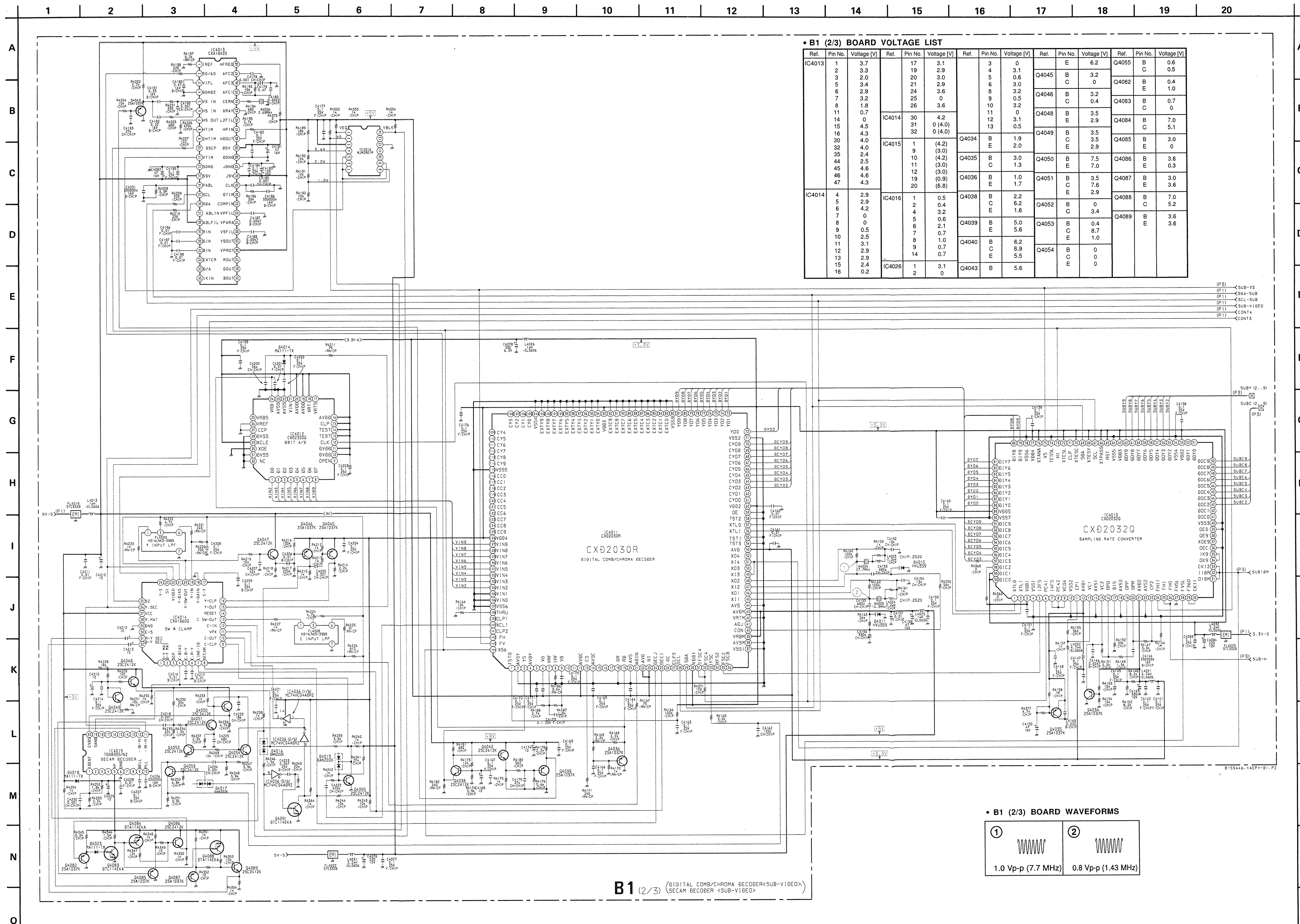




Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]
IC4001	1	3.8		2	0
	2	0.4		3	0
	3	5.6		4	3.1
	5	3.7		5	0.5
	6	3.1		6	0
	7	3.2		7	0
	8	1.8		8	3.1
	11	0.6		9	0.4
	14	0.1		10	1.6
	15	4.0		11	1.8
	16	3.3		12	3.1
	30	4.0		13	0.3
	32	4.0		14	#
	35	2.5	Q4001	B	5.4
	40	4.2		E	6.0
	44	2.5		E	6.0
	45	4.6	Q4002	B	4.9
	46	4.6		C	0.6
	47	4.6			
IC4002	3	0.1	Q4003	B	1.8
	4	8.4		C	2.1
	5	8.3		E	2.4
	6	8.4	Q4004	B	1.9
	7	8.4		E	2.5
	10	6.9			
	11	7.1	Q4005	B	1.2
	12	6.9		E	1.9
	13	4.5			
	14	3.5	Q4006	B	1.3
	15	6.1		E	1.9
	19	5.5	Q4007	B	1.3
	20	5.8		E	1.9
	21	5.5	Q4008	B	0.8
	24	2.2		E	1.4
IC4003	1	1.5			
	2	1.5	Q4009	B	0.8
	3	1.5		E	1.6
	4	1.6			
	5	1.3	Q4010	B	0.8
	6	0		E	1.4
	7	1.2	Q4011	B	4.9
	8	1.4		E	5.5
	9	1.4			
	10	1.4	Q4013	B	2.2
	11	1.3		C	6.1
	12	1.3		E	1.5
	13	1.3			
	14	1.4	Q4015	B	1.0
	15	1.4		E	1.7
	16	1.4			
	17	1.4	Q4017	B	2.1
	18	1.8		C	0
	19	1.4		E	0
	20	1.6			
	21	1.3	Q4018	B	4.8
	22	1.3		C	0
	23	1.2		E	5.4
	24	1.4			
	25	1.4	Q4020	B	0.2
	26	1.3		C	4.5
	27	1.4	Q4021	B	4.9
	28	1.4		C	0.3
	29	1.4			
	30	1.6	Q4022	B	3.2
	31	0		C	0.2
	32	0	Q4023	B	3.4
	33	0		C	0.3
	35	0			
	36	2.1	Q4024	B	2.9
	37	2.1		E	2.2
	38	2.6			
	42	0.8	Q4025	B	3.5
	44	0		E	2.9
	46	0			
IC4006	4	2.9	Q4026	B	2.5
	5	2.9		C	3.5
	6	4.2		E	2.9
	7	0	Q4027	B	0.6
	8	0		C	0.5
	9	0.5			
	10	2.5	Q4028	B	7.5
	11	3.1		E	6.9
	12	2.9			
	13	2.9	Q4029	B	0
	15	2.4		C	7.6
	16	0.2		E	0
	17	3.1	Q4030	B	3.4
	19	2.9		C	0
	20	3.0		E	2.8
	21	2.9			
	22	3.6	Q4031	B	0
	23	0		C	3.4
	24	3.6			
	25	0	Q4032	B	0.4
	26	3.6		C	8.7
	30	4.2		E	1.0
	31	0 (4.0)	Q4074	B	0.3
	32	0 (4.0)		E	0.9
IC4007	1	(4.4)	Q4075	B	0.5
	5	(7.9)		C	7.2
	9	(3.4)			
	10	(4.3)	Q4076	B	3.6
	11	(3.1)		C	3.0
	12	(3.0)			
	19	(0.7)	Q4077	B	3.1
	20	(6.9)		E	3.7
IC4008	1	0.5	Q4078	B	3.6
	2	0.4		E	3.1
	4	3.2			
	5	0.6	Q4079	B	7.2
	6	2.1		C	4.2
	7	0.6			
	8	1.0	Q4080	B	3.0
	9	0.7		E	3.6
	14	0.7	Q4081	B	7.2
				E	4.2
IC4009	1	3.1			



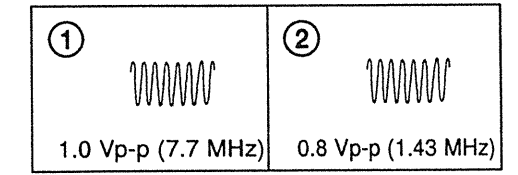
(6) Schematic Diagram of B1 (2/3) Board



• B1 (2/3) BOARD VOLTAGE LIST

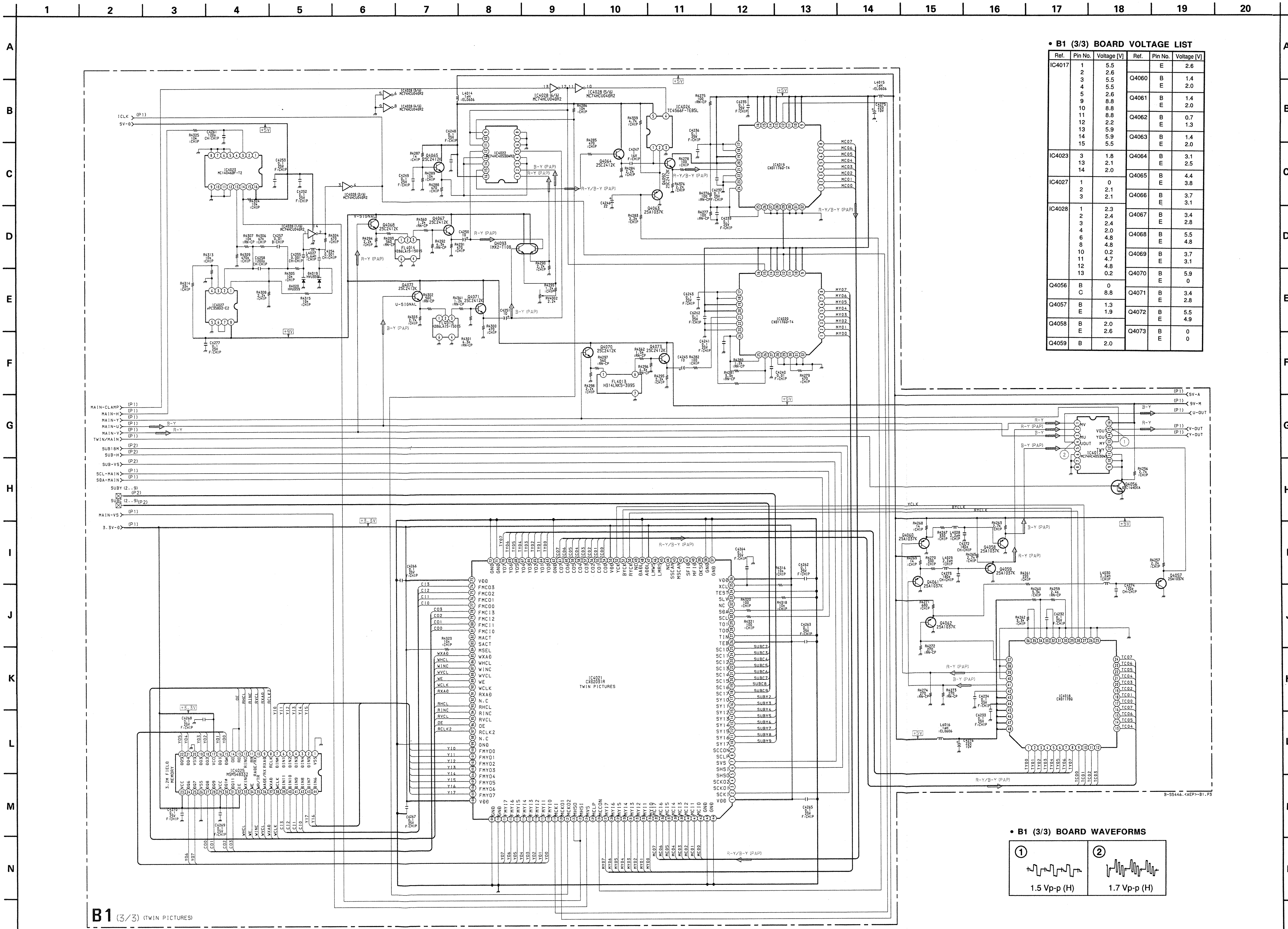
Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]					
IC4013	1	3.7	IC4014	30	4.2	Q4034	B	1.9	Q4055	B	0.6					
	2	3.3		31	0 (4.0)		4	3.1		Q4045	B	3.2	C	0.5		
	3	2.0		32	0 (4.0)		5	0.6		Q4046	B	3.0	Q4082	B	0.4	
	4	3.4		IC4015	1		(4.2)	6		3.0	Q4048	B	3.2	Q4083	B	0.7
	5	2.9			9		(3.0)	7		0.5	Q4049	B	3.5	C	0	
	6	2.9		10	(4.2)		8	3.2		Q4048	B	2.9	Q4084	B	7.0	
	7	3.2		11	(3.0)		9	0.5		Q4050	B	7.5	Q4085	B	5.1	
	8	1.8		12	(3.0)		10	3.2		Q4051	B	3.5	Q4087	B	3.0	
	11	0.7		13	0.5		11	0		Q4036	B	1.7	Q4087	B	3.6	
	14	0		IC4016	1		0.5	12		3.1	Q4038	B	2.2	Q4088	B	7.0
	15	4.5			2		0	13		0.5	C	6.2	C	0	C	5.2
	16	4.3		4	2.9		3	0		Q4039	B	5.0	Q4053	B	0.4	
	30	4.0		6	4.2		4	3.2		Q4040	B	6.2	Q4054	B	0	
	32	4.0		7	0		5	0.6		Q4040	C	8.9	Q4054	C	0	
	35	2.4		8	0		6	2.1		Q4040	E	5.5	Q4054	E	0	
	44	2.5		9	0.5		7	0.7		Q4043	B	5.6				
45	4.6	10	2.5	8	1.0											
46	4.6	11	3.1	9	0.7											
47	4.3	12	2.9	14	0.7											
		13	2.9													
		15	2.4													
		16	0.2													

• B1 (2/3) BOARD WAVEFORMS



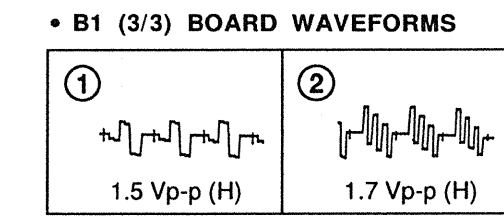
B1 (2/3) (DIGITAL COMB/CHROMA DECODER<SUB-VI-BED>)
(SECAM DECODER <SUB-VI-BED>)

(7) Schematic Diagram of B1 (3/3) Board

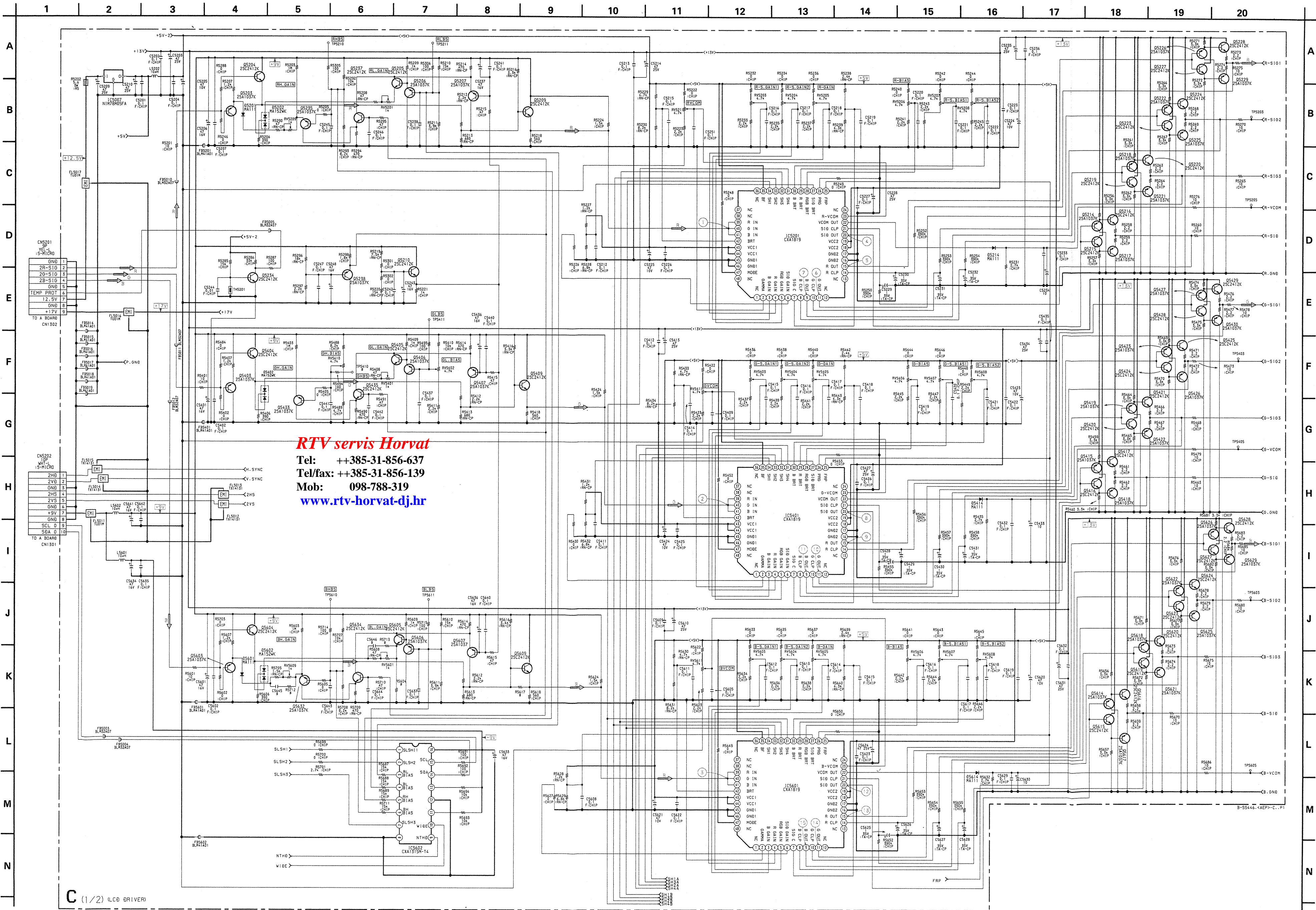


• B1 (3/3) BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]													
IC4017	1	5.5	Q4060	B	1.4													
	2	2.6		Q4061	E	2.0												
	3	5.5			Q4062	B	0.7											
	4	5.5				Q4063	E	1.3										
	5	2.6					Q4064	B	3.1									
	9	8.8						Q4065	E	3.8								
	10	8.8							Q4066	B	3.7							
	11	8.8								Q4067	E	3.1						
	12	2.2									Q4068	B	5.5					
	13	5.9										Q4069	E	4.8				
	14	5.9											Q4070	B	3.7			
	15	5.5												Q4071	E	3.1		
															Q4072	B	5.9	
																Q4073	E	0
																	Q4074	B
		Q4075	E															0
			Q4076	B														0
				Q4077	E													0
					Q4078	B												0
						Q4079	E											0
							Q4080	B										0
								Q4081	E									0
									Q4082	B								0
										Q4083	E							0
											Q4084	B						0
												Q4085	E					0
													Q4086	B				0
														Q4087	E			0
															Q4088	B		0
																Q4089	E	0
		Q4090															B	0
			Q4091														E	0
				Q4092													B	0
					Q4093												E	0
						Q4094											B	0
							Q4095										E	0
								Q4096									B	0
									Q4097								E	0
										Q4098							B	0
											Q4099						E	0
												Q4100					B	0
													Q4101				E	0



B1 (3/3) (TWIN PICTURES)



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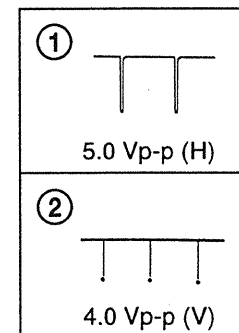
Schematic diagram
 (1/2) board →

(9) Schematic Diagram of C (2/2) Board

• C (2/2) BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]
IC5002	1	2.3
	2	2.3
	3	2.3
	4	0
	5	0
	6	4.6
	7	4.6
IC5003	1	0.9
	2	0.9
	3	1.4
	4	4.6
IC5005	1	16.8
	2	15.5
	4	16.8
IC5006	1	15.5
	2	13.3
	4	1.3
Q5001	B	0.1
	C	4.1
	E	0

• C (2/2) BOARD WAVEFORMS

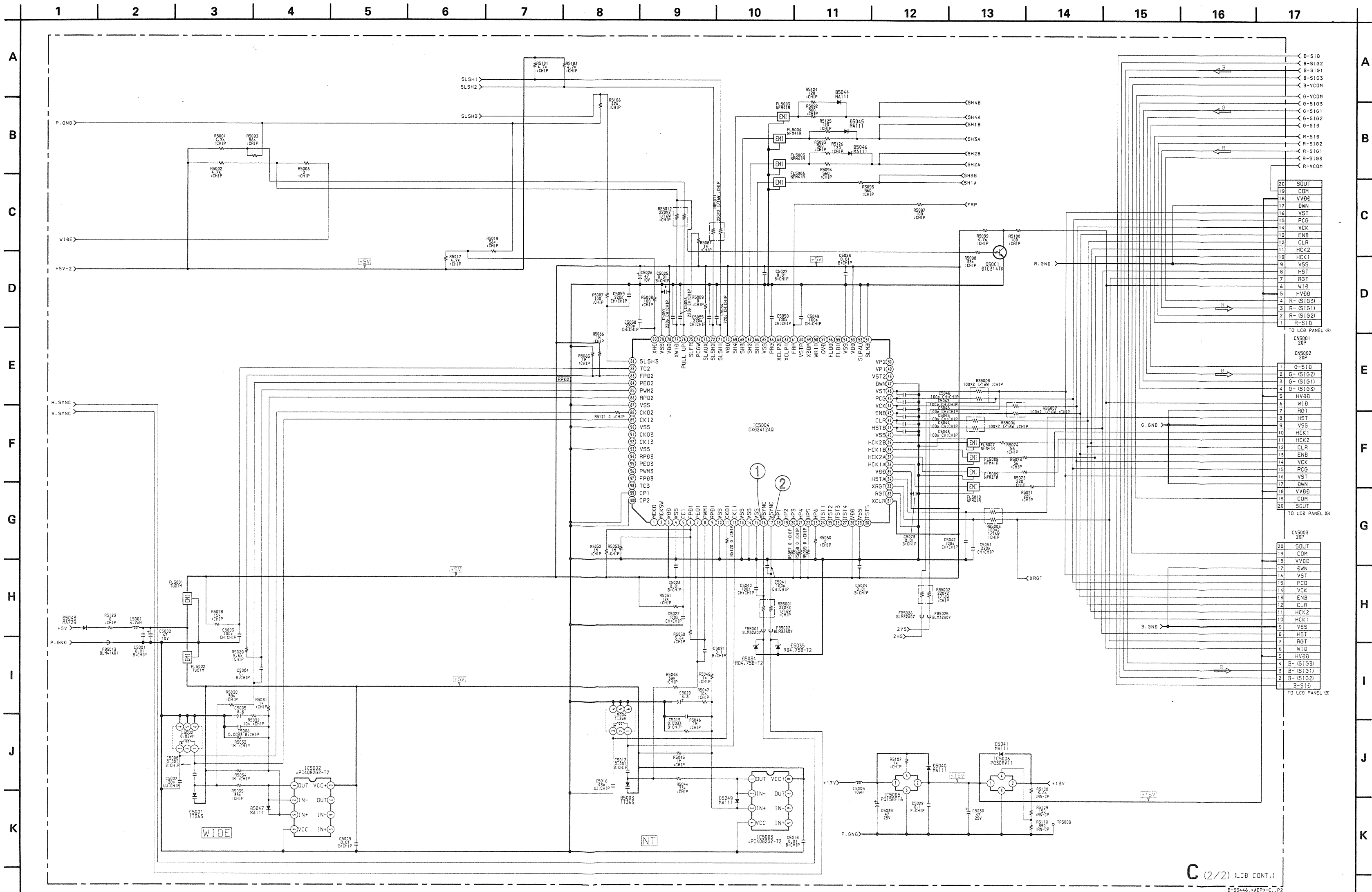


C BOARD

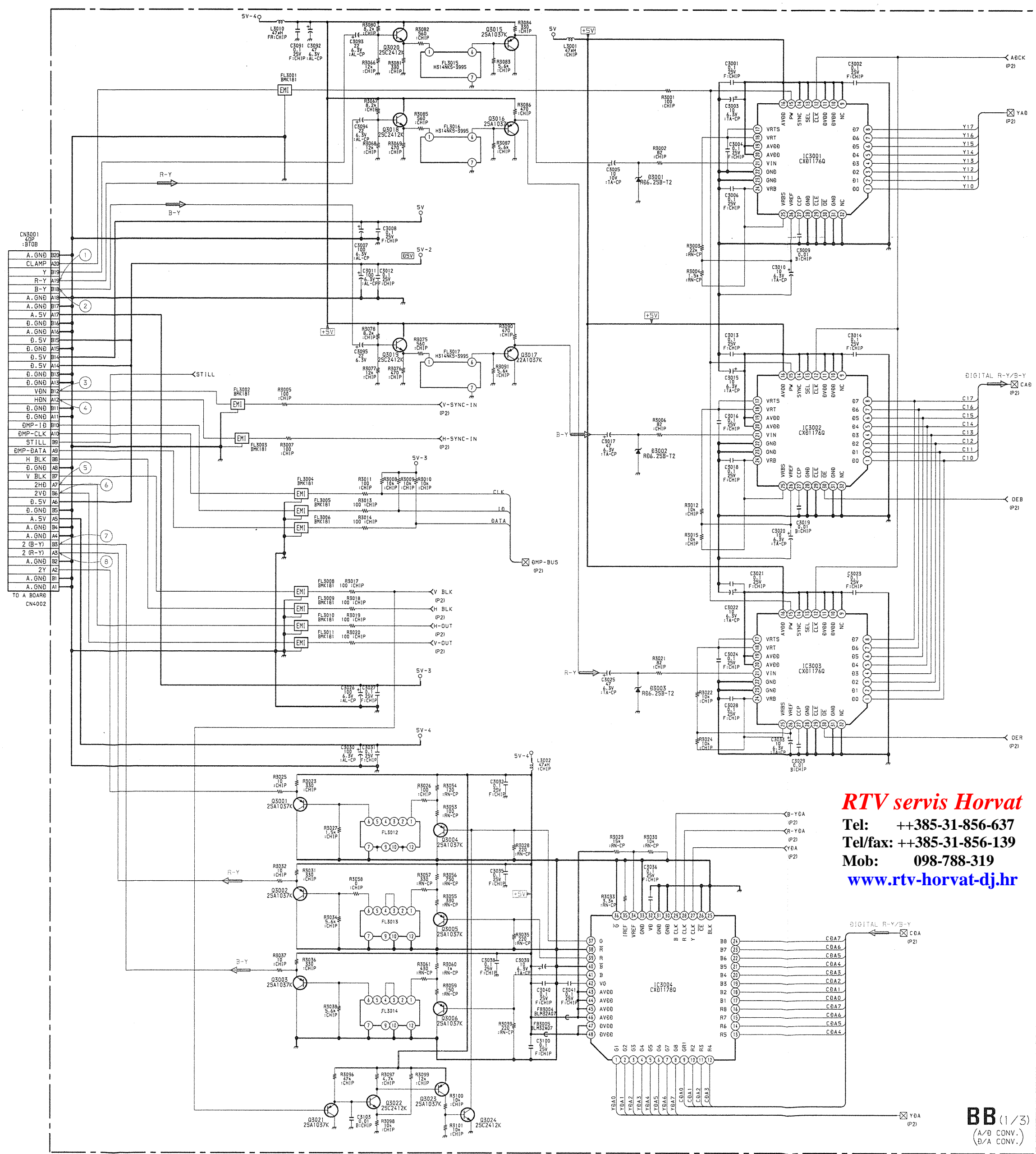
Terminal name of semiconductors in silk screen printed circuit (*):

Ref.	*
Q5404, Q5409, Q5417, Q5421, Q5425, Q5426, Q5429, Q5430, Q5433, Q5609, Q5616, Q5617, Q5620, Q5621, Q5624, Q5625, Q5628, Q5629	①
Q5001, Q5203 - Q5207, Q5209, Q5210, Q5214 - Q5229, Q5234, Q5235, Q5237, Q5238, Q5403, Q5405 - Q5407, Q5415, Q5416, Q5418 - Q5420, Q5422 - Q5424, Q5427, Q5428, Q5435, Q5603 - Q5607, Q5614, Q5615, Q5618, Q5619, Q5622, Q5623, Q5626, Q5627, Q5632, Q5634	②
D5001, D5003, D5034, D5035, D5040, D5041, D5043 - D5047, D5049, D5201, D5214, D5414, D5601, D5614	③
D5202, D5402, D5602	④

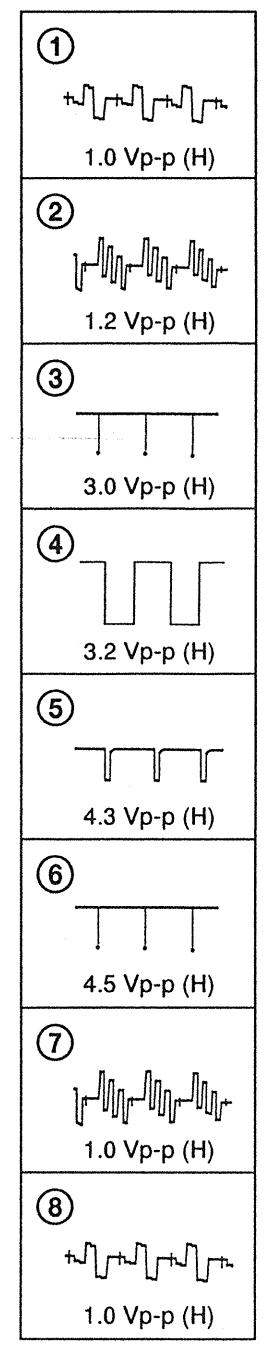
*: Refer to Terminal name of semiconductors in silk screen printed circuit (see page 44)



C (2/2) (LCD CONT.)



• BB (1/3) BOARD WAVEFORMS

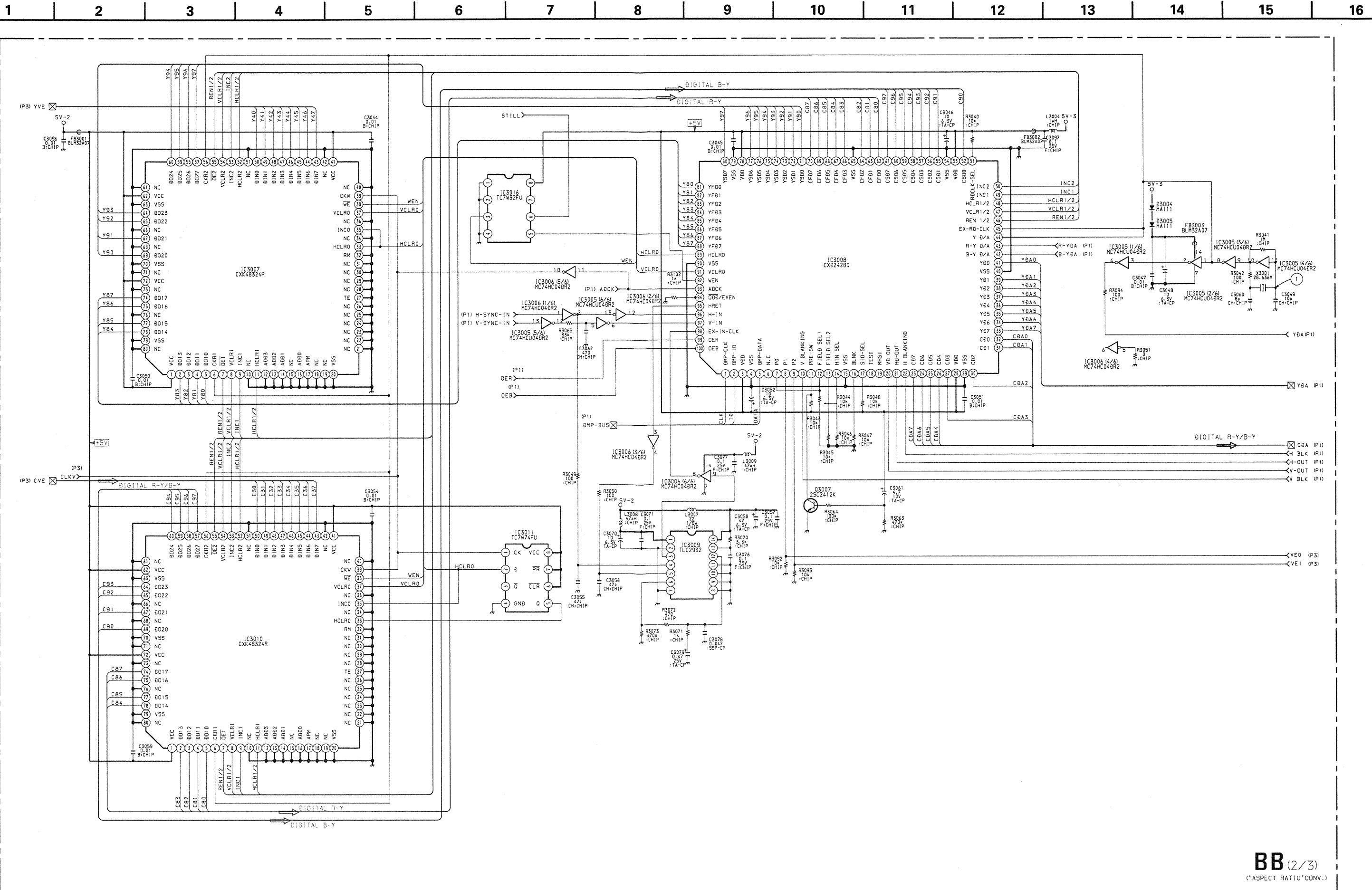


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• BB (1/3) BOARD VOLTAGE LIST

Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]	Ref.	Pin No.	Voltage [V]				
IC3001	1	2.1	IC3004	2	2.7	Q3001	21	3.0				
	2	2.7		3	3.4		22	3.0				
	3	3.4		4	3.1		23	2.8				
	4	3.1		5	3.2		24	1.8				
	5	3.2		6	3.2		27	2.3				
	6	3.2		7	3.1		28	2.5				
	7	3.1		8	1.7		29	2.9				
	8	1.7		12	2.3		32	1.1				
	12	2.3		15	3.2		34	0				
	15	3.2		17	2.5		35	2.0				
	17	2.5		18	2.5		37	0.5				
	18	2.5		21	1.5		39	1.0				
	21	1.5		24	0.5		41	1.0				
	24	0.5		25	0.5		42	3.1				
	25	0.5		26	0							
	26	0		27	2.5		0					
	27	2.5		30	2.6							
	30	2.6										
	IC3002	1		2.1	IC3005		1	1.8	Q3002	B	1.8	
		2		2.7			2	1.8		E	2.4	
		3		3.4			3	2.0		Q3003	B	1.8
		4		3.1			4	1.8			E	2.5
		5		1.3			5	1.3			Q3004	B
		6		1.6			6	1.6		E		0.5
		7		0			7	0		E		1.2
		8		0.7			8	0.7		Q3005	B	1.0
		9		0.5			9	0.5			E	1.7
		10		1.7			10	1.7			Q3006	B
		11		3.2			11	3.2		E		1.7
		12		2.9			12	2.9		Q3015		B
13		3.0	13	3.0		E	1.7					
14		3.0	14	3.0		Q3020	B	2.0				
15		2.9	15	2.9			E	1.7				
16		1.8	16	1.8			Q3020	B		2.8		
17		0.5	17	0.5		E		2.2				
18		1.7	18	1.7								
19		3.2	19	3.2								
20		2.9	20	2.9								
IC3003	1	2.1										

BB (1/3)
 (A/B CONV.)
 (B/A CONV.)



A
B
C
D
E
F
G
H
I
J

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

(12) Schematic Diagram of BB (3/3) Board

