

JVC

SCHEMATIC DIAGRAMS

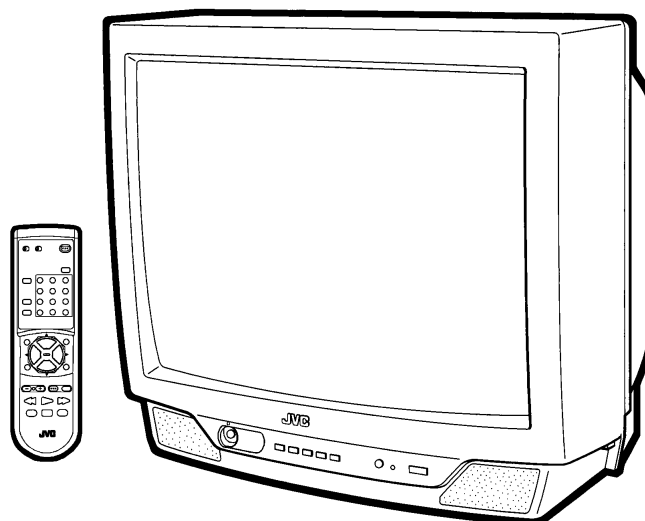
COLOR TELEVISION

BASIC CHASSIS

FV4

C-20210_{/s} AV-20220_{/s} AV-20221_{/s}

CD-ROM No.SML200102



CONTENTS

■ NOTE ON USING CIRCUIT DIAGRAMS	2-1
■ SEMICONDUCTOR SHAPES	2-2
■ BLOCK DIAGRAMS	2-3
■ CIRCUIT DIAGRAMS	2-7
■ PATTERN DIAGRAMS	2-13
■ CHANNEL CHART	2-15

CHANNEL CHART [CA]

MODE		BAND	CHANNEL		TUNER BAND				
TV	CATV		REAL	DISP.					
○	○	VL	02	I					
			03						
			04						
			05						
			06						
			07						
	○	VH	08	II					
			09						
			10						
			11						
			12						
			13						
			x		○	MID	A	14	II
B	15								
C	16								
D	17								
E	18								
F	19								
G	20								
H	21								
I	22								
○	SUPER	J		23		III			
		K		24					
		L		25					
		M		26					
		N		27					
		O		28					
		P		29					
		Q		30					
		R		31					
		S		32					
		T		33					
		U		34					
		V		35					
		W		36					
		○		○	HYPER		W+1	37	III
							W+2	38	
							W+3	39	
							W+4	40	
W+5	41								
W+6	42								
W+7	43								
W+8	44								
W+9	45								
W+10	46								
W+11	47								
W+12	48								
W+13	49								
W+14	50								
W+15	51								
W+16	52								
W+17	53								
W+18	54								
W+19	55								
W+20	56								
W+21	57								
W+22	58								
W+23	59								
W+24	60								
W+25	61								
W+26	62								
W+27	63								
W+28	64								
○	○	ULTRA	W+29	65	IV				
			W+30	66					
			W+31	67					
			W+32	68					
			W+33	69					
			W+34	70					

MODE		BAND	CHANNEL		TUNER BAND				
TV	CATV		REAL	DISP.					
x	○	ULTRA	W+35	71	IV				
			W+36	72					
			W+37	73					
			W+38	74					
			W+39	75					
			W+40	76					
			W+41	77					
			W+42	78					
			W+43	79					
			W+44	80					
			W+45	81					
			W+46	82					
			W+47	83					
			W+48	84					
			W+49	85					
			W+50	86					
			W+51	87					
			W+52	88					
			W+53	89					
			W+54	90					
			W+55	91					
			W+56	92					
			W+57	93					
			W+58	94					
			W+59	100					
			W+60	101					
			W+61	102					
			W+62	103					
			W+63	104					
			W+64	105					
			W+65	106					
			W+66	107					
			W+67	108					
			W+68	109					
			W+69	110					
			W+70	111					
			W+71	112					
			W+72	113					
			W+73	114					
			W+74	115					
			W+75	116					
			W+76	117					
			W+77	118					
			W+78	119					
			W+79	120					
			W+80	121					
			W+81	122					
			W+82	123					
			W+83	124					
			W+84	125					
			○	x		SUB MID	A-8	01	I
							A-4	96	
							A-3	97	
							A-2	98	
							A-1	99	
			○	x		UHF	14 5 69	IV	
			TOTAL 180CH { VHF 124CH { UHF 56CH						
			NOTE: TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES. SPECIAL ADAPTERS MAY BE REQUIRED.						

C-20210_{IS} / AV-20220_{IS} / AV-20221_{IS} STANDARD CIRCUIT DIAGRAM

NOTE ON USING CIRCUIT DIAGRAMS

1. SAFETY

The components identified by the Δ symbol and shading are critical for safety. For continued safety replace safety critical components only with manufactures recommended parts.

2. SPECIFIED VOLTAGE AND WAVEFORM VALUES

The voltage and waveform values have been measured under the following conditions.

- (1) Input signal : Color bar signal
 - (2) Setting positions of each knob/button and variable resistor : Original setting position when shipped
 - (3) Internal resistance of tester : DC 20k Ω / V
 - (4) Oscilloscope sweeping time : H \Rightarrow 20 μ S/div
: V \Rightarrow 5mS/div
: Others \Rightarrow Sweeping time is specified
 - (5) Voltage values : All DC voltage values
- * Since the voltage values of signal circuit vary to some extent according to adjustments, use them as reference values.

3. INDICATION OF PARTS SYMBOL [EXAMPLE]

● In the PW board : R1209 \rightarrow R209

4. INDICATIONS ON THE CIRCUIT DIAGRAM

(1) Resistors

- Resistance value
No unit : [Ω]
K : [K Ω]
M : [M Ω]
- Rated allowable power
No indication : 1/10[W]
Others : As specified

● Type

- No indication : Carbon resistor
- OMR : Oxide metal film resistor
- MFR : Metal film resistor
- MPR : Metal plate resistor
- UNFR : Uninflammable resistor
- FR : Fusible resistor

* Composition resistor 1/2 [W] is specified as 1/2S or Comp.

(2) Capacitors

- Capacitance value
1 or higher : [pF]
less than 1 : [μ F]
- Withstand voltage
No indication : DC50[V]
AC indication : AC withstand voltage [V]
Others : DC withstand voltage [V]

* Electrolytic Capacitors

47/50[Example]: Capacitance value [μ F]/withstand voltage[V]

- Type
No indication : Ceramic capacitor
MY : Mylar capacitor
MM : Metalized mylar capacitor
PP : Polypropylene capacitor
MPP : Metalized polypropylene capacitor
MF : Metalized film capacitor
TF : Thin film capacitor
BP : Bipolar electrolytic capacitor
TAN : Tantalum capacitor

(3) Coils

- No unit : [μ H]
- Others : As specified

(4) Power Supply

- : B1
- : 12V
- : 9V
- : 5V

* Respective voltage values are indicated

(5) Test point

- : Test point
- : Only test point display

(6) Connecting method

- : Connector
- : Wrapping or soldering
- : Receptacle

(7) Ground symbol

- : LIVE side ground
- : ISOLATED(NEUTRAL) side ground
- : EARTH ground
- : DIGITAL ground

5. NOTE FOR REPAIRING SERVICE

This model's power circuit is partly different in the GND. The difference of the GND is shown by the LIVE : (\perp) side GND and the ISOLATED(NEUTRAL) : (\neq) side GND. Therefore, care must be taken for the following points.

- (1) Do not touch the LIVE side GND or the LIVE side GND and the ISOLATED(NEUTRAL) side GND simultaneously. If the above caution is not respected, an electric shock may be caused. Therefore, make sure that the power cord is surely removed from the receptacle when, for example, the chassis is pulled out.
- (2) Do not short between the LIVE side GND and ISOLATED(NEUTRAL) side GND or never measure with a measuring apparatus (oscilloscope, etc.) the LIVE side GND and ISOLATED(NEUTRAL) side GND at the same time. If the above precaution is not respected , a fuse or any parts will be broken.

◇ Since the circuit diagram is a standard one, the circuit and circuit constants may be subject to change for improvement without any notice.

CONTENTS

SEMICONDUCTOR SHAPES 2-2

BLOCK DIAGRAM

C-20210 2-3

AV-20220/ AV-20221 2-5

CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM [C-20210] 2-7

MAIN PWB CIRCUIT DIAGRAM [AV-20220/ AV-20221] 2-9

MAIN PWB, CRT SOCKET PWB CIRCUIT DIAGRAM 2-11

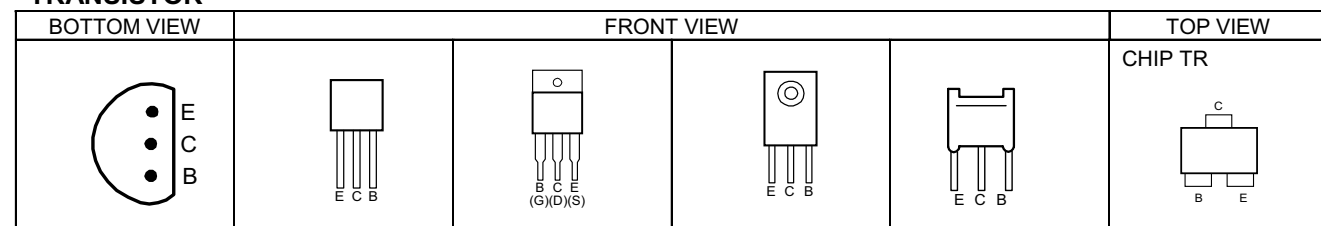
PATTERN DIAGRAMS

MAIN PWB, CRT SOCKET PWB PATTERN 2-13

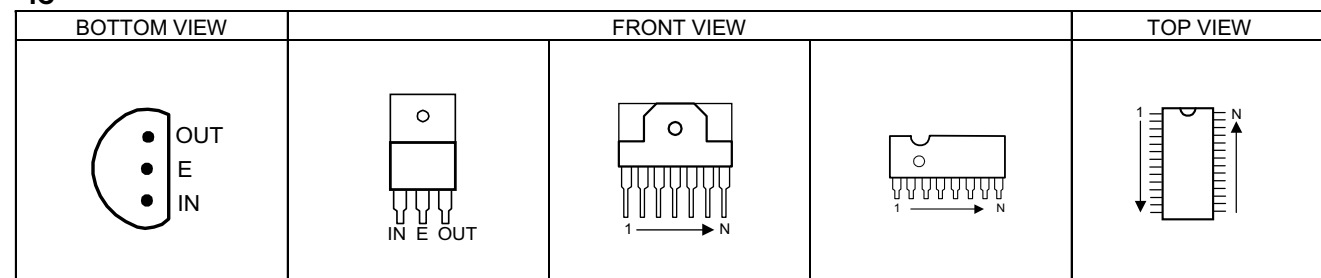
CHANNEL CHART 2-15

SEMICONDUCTOR SHAPES

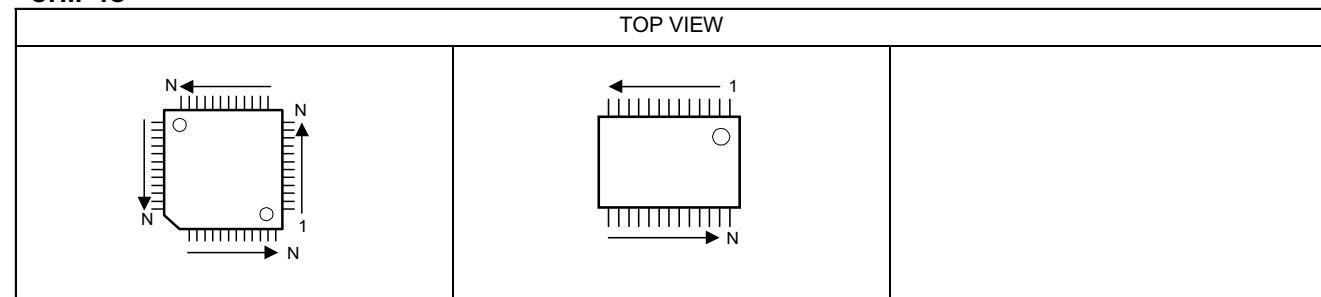
TRANSISTOR



IC



CHIP IC

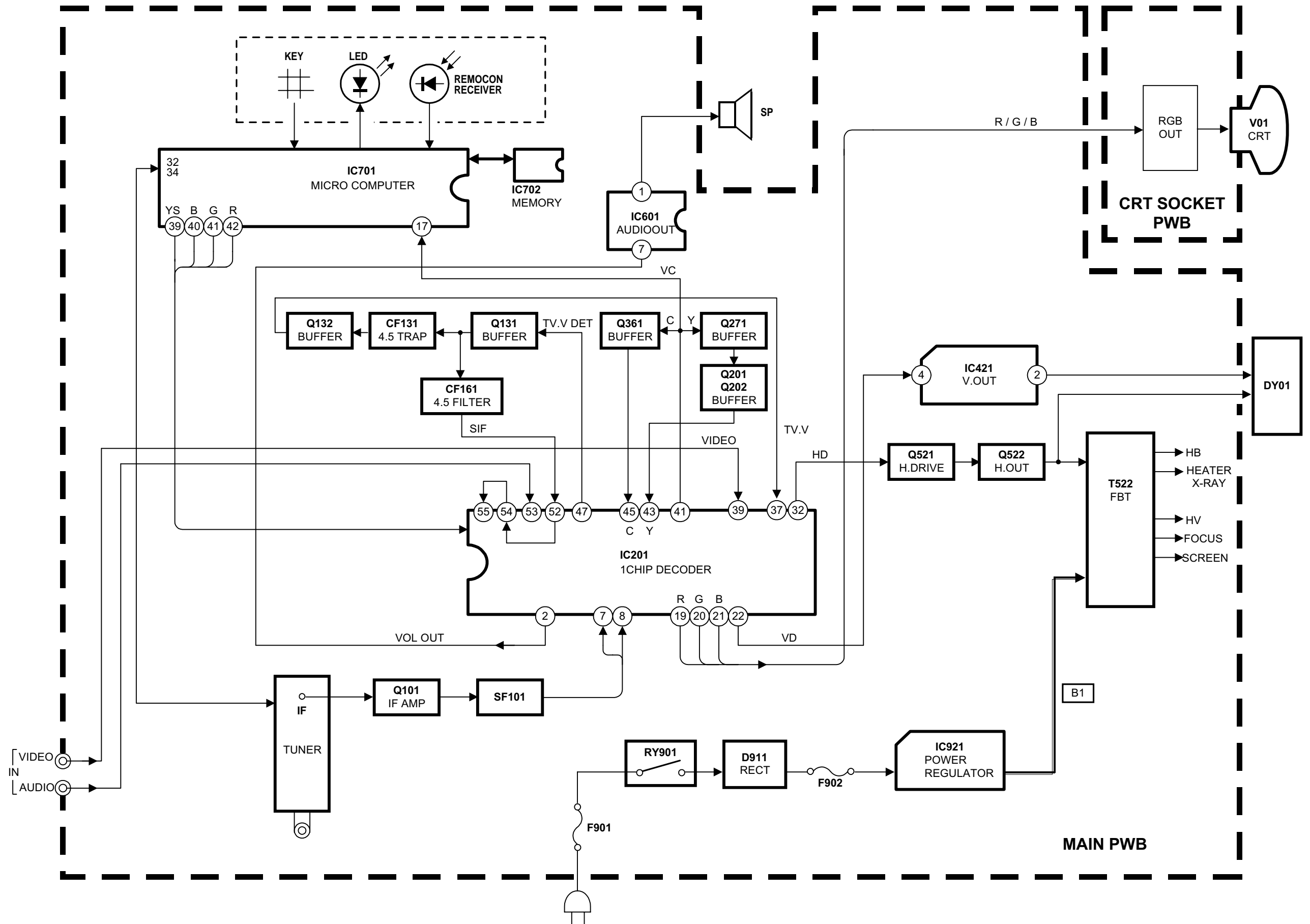


CHANNEL CHART [US]

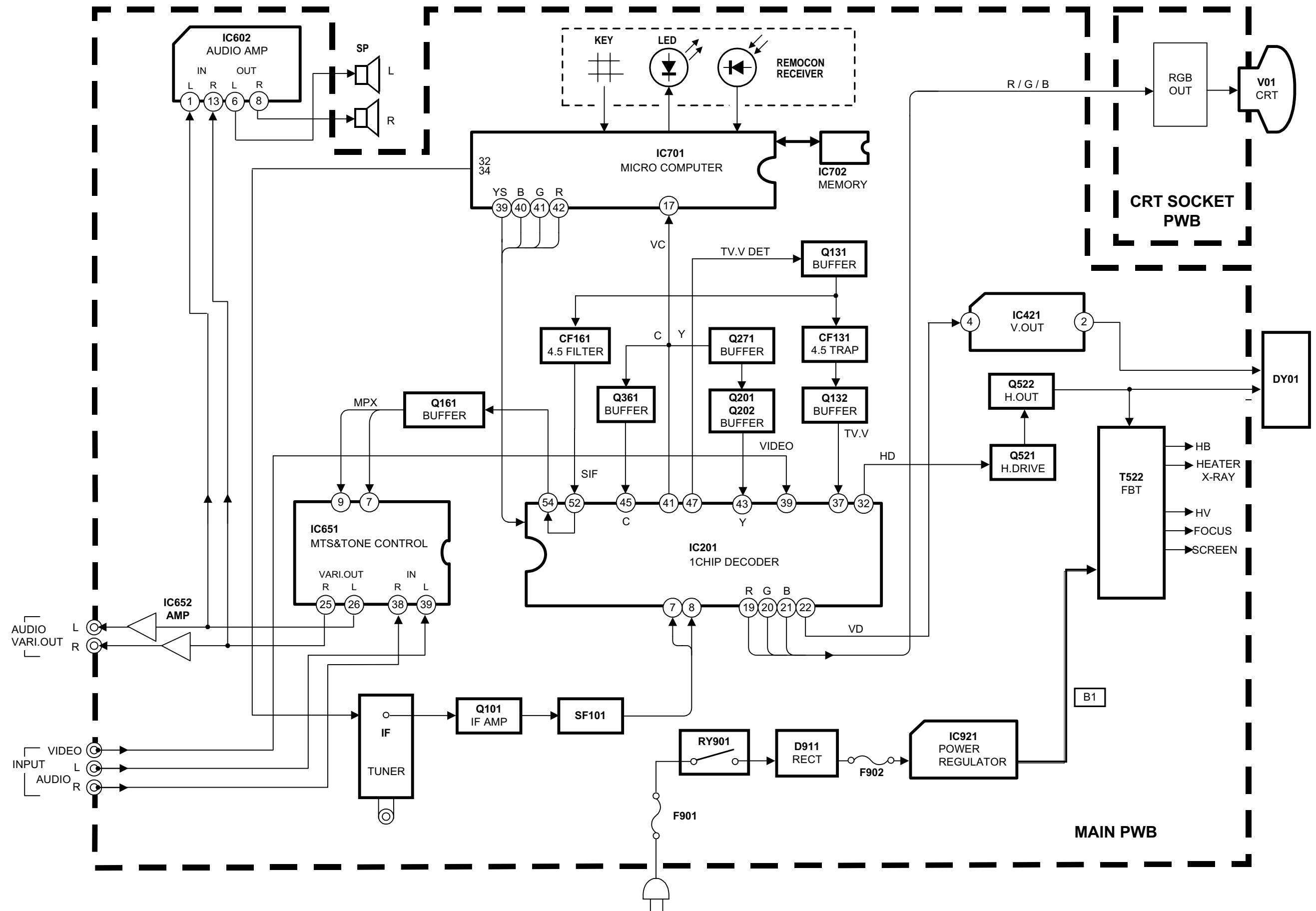
MODE		BAND	CHANNEL		TUNER BAND		
TV	CATV		REAL	DISP.			
○	○	VL	02	I			
			03				
			04				
			05				
			06				
		VH	07	II			
			08				
			09				
			10				
			11				
			12				
			13				
			x		○	MID	A
B	15						
C	16						
D	17						
E	18						
F	19						
G	20						
H	21						
I	22						
SUPER	J	23		II			
	K	24					
	L	25					
	M	26					
	N	27					
	O	28					
	P	29					
	Q	30					
	R	31					
	S	32					
	T	33					
	U	34					
	V	35					
	W	36					
	HYPER	W+1				37	IV
		W+2				38	
		W+3				39	
W+4		40					
W+5		41					
W+6		42					
W+7		43					
W+8		44					
W+9		45					
W+10		46					
W+11		47					
ULTRA	W+12	48		IV			
	W+13	49					
	W+14	50					
	W+15	51					
	W+16	52					
	W+17	53					
	W+18	54					
	W+19	55					
	W+20	56					
	W+21	57					
	W+22	58					
	W+23	59					
W+24	60						
W+25	61						
W+26	62						
W+27	63						
W+28	64						
SUB MID	A-8	01	I				
	A-4	96					
	A-3	97					
	A-2	98					
	A-1	99					
	UHF	14		IV			
69							

MODE		BAND	CHANNEL		TUNER BAND				
TV	CATV		REAL	DISP.					
x	○	ULTRA	W+35	71	IV				
			W+36	72					
			W+37	73					
			W+38	74					
			W+39	75					
			W+40	76					
			W+41	77					
			W+42	78					
			W+43	79					
			W+44	80					
			W+45	81					
			W+46	82					
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			W+71	112					
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			W+73	114					
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			W+75	116					
			W+76	117					
			W+77	118					
			W+78	119					
			W+79	120					
			W+80	121					
			W+81	122					
			W+82	123					
			W+83	124					
			W+84	125					
			SUB MID	A-8		01	I		
				A-4		96			
				A-3		97			
				A-2		98			
				A-1		99			
			○	x		UHF	14	IV	
							69		
			TOTAL 180CH { VHF 124CH { UHF 56CH						
			NOTE: TO RECEIVE THE SUBSCRIPTION OR PREMIUM PROGRAMMING FROM CERTAIN CABLE COMPANIES. SPECIAL ADAPTERS MAY BE REQUIRED.						

BLOCK DIAGRAM [C-20210]



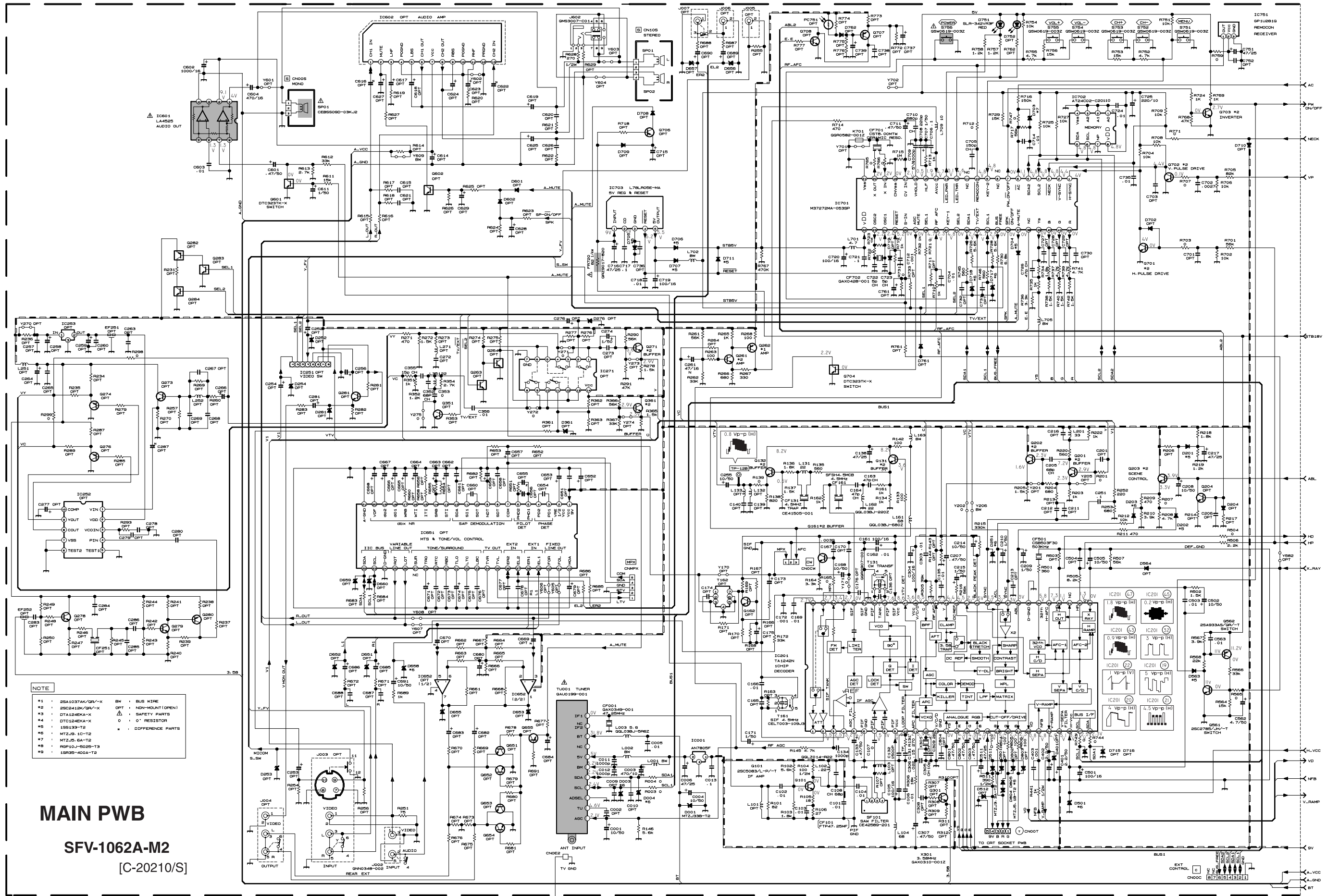
BLOCK DIAGRAM [AV-20220/AV-20221]



CIRCUIT DIAGRAMS

MAIN PWB CIRCUIT DIAGRAM

C-20210

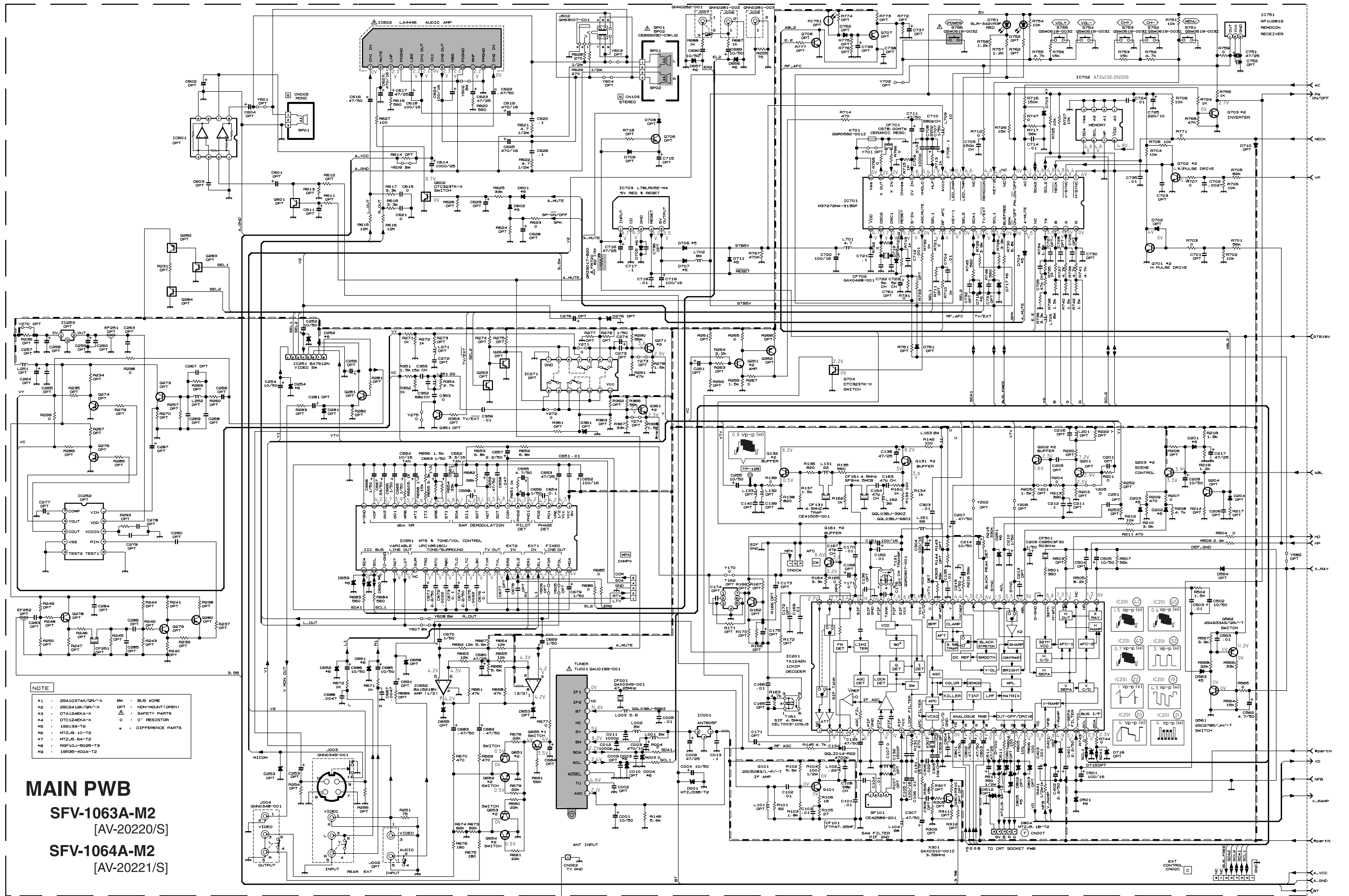


- NOTE**
- #1 : 25A1037AK/GR-X BW + BUS WIRE
 - #2 : 25C2418K/GR-X OPT + NON-MOUNT (OPEN)
 - #3 : DTAL2484K-X Δ + SAFETY PARTS
 - #4 : DTCL2484K-X 0 + 0° RESISTOR
 - #5 : 15S133-T2 . + DIFFERENCE PARTS
 - #6 : MTZJ9.1C-T2
 - #7 : MTZJ5.6A-T2
 - #8 : R9P10-5025-T3
 - #9 : 15R25-402A-T2

MAIN PWB
SFV-1062A-M2
 [C-20210/S]

MAIN PWB CIRCUIT DIAGRAM

AV-20220/AV-20221

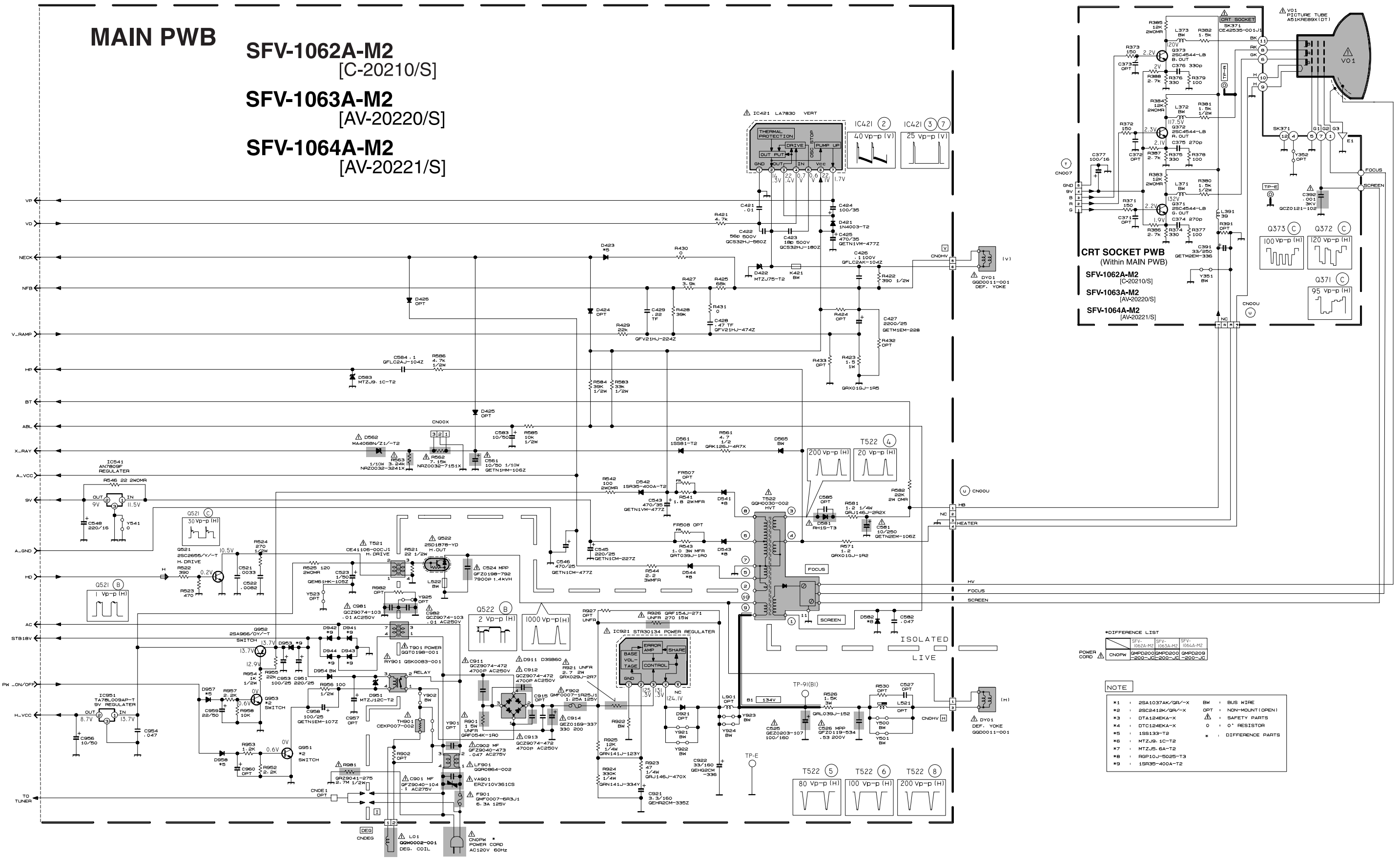


NOTE

*1 : 25A1037AK/GR-X	BW	BUS WIRE
*2 : 25C2412K/GR-X	OPT	NON-MOUNT (OPEN)
*3 : DT12464A-X	Δ	SAFETY PARTS
*4 : DT12464A-X	○	RESISTOR
*5 : 18S133-T2	*	DIFFERENCE PARTS
*6 : MTZJ9.1C-T2		
*7 : MTZJ5.6A-T2		
*8 : RGP10-5025-T3		
*9 : 18R35-400A-T2		

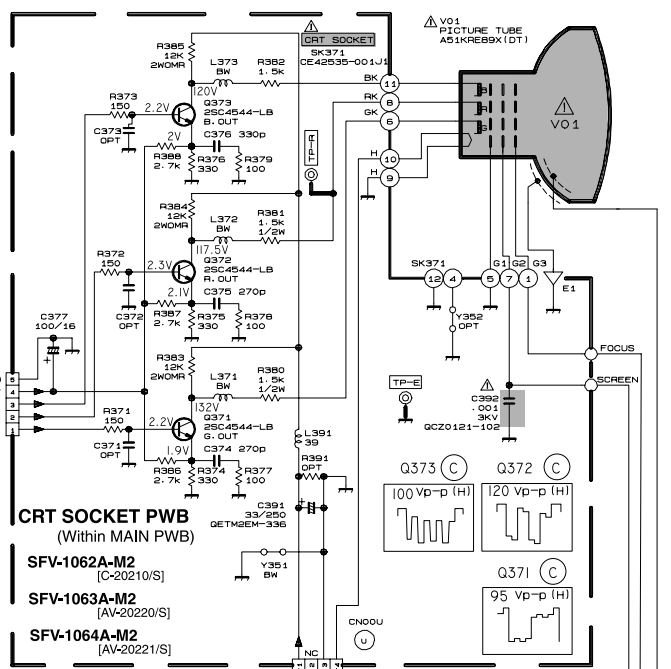
MAIN PWB
SFV-1063A-M2
 [AV-2020/S]
SFV-1064A-M2
 [AV-2021/S]

MAIN PWB, CRT SOCKET PWB CIRCUIT DIAGRAM



MAIN PWB

SFV-1062A-M2
[C-20210/S]
SFV-1063A-M2
[AV-20220/S]
SFV-1064A-M2
[AV-20221/S]



CRT SOCKET PWB
(Within MAIN PWB)
SFV-1062A-M2
[C-20210/S]
SFV-1063A-M2
[AV-20220/S]
SFV-1064A-M2
[AV-20221/S]

***DIFFERENCE LIST**

POWER CORD	SFV-1062A-M2	SFV-1063A-M2	SFV-1064A-M2
CN007	QMPD200	QMPD200	QMPD209
	200-JC-200-JC	200-JC	200-JC

NOTE

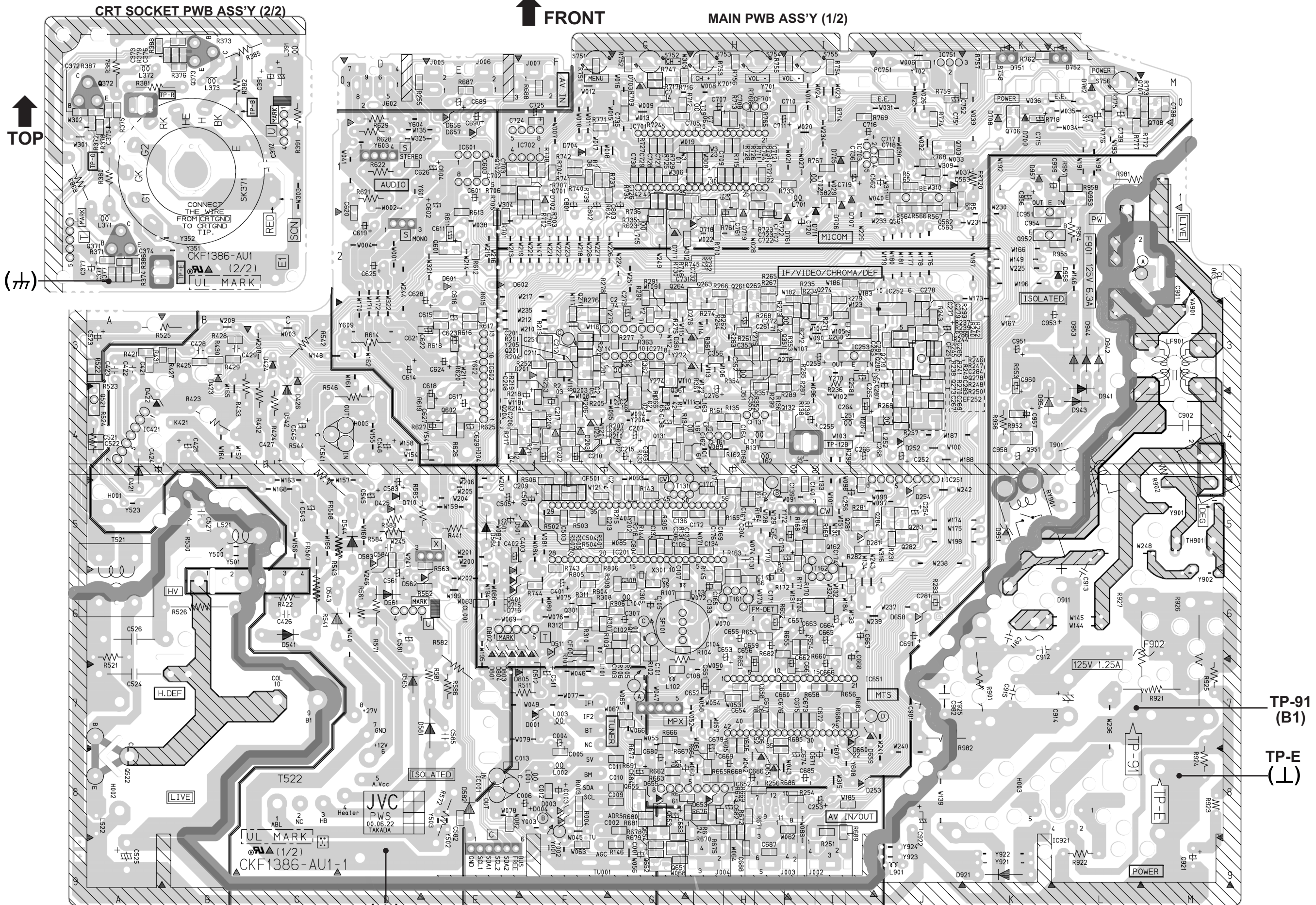
#1	2SA1037AK/QR/-X	BW	: BUS WIRE
#2	2SC2412K/QR/-X	OPT	: NON-MOUNT (OPEN)
#3	DTA124EKA-X	△	: SAFETY PARTS
#4	DTA124EKA-X	0	: 0° RESISTOR
#5	1SB133-T2	*	: DIFFERENCE PARTS
#6	MTZJ9. 1C-T2		
#7	MTZJ5. 6A-T2		
#8	RGF10J-S025-T3		
#9	1SR35-400A-T2		

PATTERN DIAGRAMS

MAIN PWB, CRT SOCKET PWB PATTERN

C-20210
AV-20220
AV-20221

C-20210
AV-20220
AV-20221



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