

VHF/FM SYNTHESIZED
HANDHELD TRANSCEIVER

MODEL 1100L-6
(STD. CTCSS)

SHINSO SV1100
Service Manual
TA2EI - Recep Aydın GÜLEÇ

SPECIFICATIONS FOR VHF/FM SYNTHESIZED
HAND-HELD TRANSCEIVER MODEL SV-1100,
(Land Specifications)

GENERAL

Frequency Range : 144 MHz to 146 MHz
Number of Channels : 6 Channels
Communication System : Simplex or Semiduplex
Type of Emission : 16F3
Antenna : Helical whip antenna (50 ohm)
Power Supply : DC 7.2V
Current Drain : 7.2V
TX approx 850 mA at 2.5W output
approx 400 mA at 0.5W output
RX approx 85 mA for max. audio
approx.32 mA for standby

Dimension (m/m) : 7.2V version 58(W) x 150 (H) x 42 (D)

Weight : approx 430 grams

TRANSMITTER

Output Power : 7.2V version 0.5/2.5W switchable
Frequency Stability : ± 5 ppm (Temp. range: -10° to $+50^{\circ}\text{C}$)
Frequency Multiplication : 2 times
Harmonics & Spurious Emission: 65 dB below carrier level

RECEIVER

Receiving System : Double Superheterodyne
Frequency Stability : ± 5 ppm (Temp range: -10° to $+50^{\circ}\text{C}$)
Intermediate Frequency : 1st 21.4 MHz, 2nd 455 KHz
Sensitivity : Less than 0.25 μV for 12 dB SINAD
Selectivity : More than 70 dB at 12.5KHz
Audio Output Power : 0.2W at 10% distortion
Spurious Rejection : More than 65 dB

(Specifications subject to change without notice.)

DIODE MATRIX ALIGNMENT PLANNING

SV- 1100L (6 CH & 12 CH)
(STD. CTCSS)

RX 27.025
TX 32.250

FREQUENCY PROGRAMMING CHARTS (25KHz STEP)

(Formula)

$$TX/N = \left[\frac{f \text{ (MHz)}}{2} - f_{\text{local}} \text{ (MHz)} \times 2 \right] \times \frac{1}{6.25 \times 10^{-3}}$$

$$RX/N = \left[\frac{f \text{ (MHz)} - 21.4}{2} - f_{\text{local}} \text{ (MHz)} \times 2 \right] \times \frac{1}{6.25 \times 10^{-3}}$$

31.000MHz → 160-165 MHz

Diode Position	N
x A	-2x
x B	4x
C	8 - x
x D	x 10x
x E	-20x
F	-40 x
x G	-80x
x H	-100 x
x I	-200 - x
x J	-400x
K	.1000x -

145.650 N = 820
145.050 N = 772

RX = J, I, H, G, E (F)
TX = J, I, H, E

820 = 145.650 = A, C, E, G, H, I, J

C E F H I J

Freq. Band (MHz)	TX f _{local}	RX f _{local}
135 - 140	30.10	24.75
140 - 145	31.35	26.00
145 - 150	32.60	27.25
150 - 155	33.85 67.700	28.50 57.000
155 - 160	35.10	29.75
160 - 165	36.35 ✓	31.00 ✓
165 - 170	37.60	32.25
170 - 175	38.85	33.50

Example 1: TX = 146.450MHz

$$N = \left[\frac{146.450}{2} - 32.60 \times 2 \right] \times \frac{1}{0.00625} = 1284$$

*Diodes are positioned at diode positions K, I, G, & B
--- Frame of large "G" (CH1 of TX)

- K1000
- I 200
- G 30
- B 4

K I G B
1 2 8 4

65.200
7.550

TX 146.450 ÷ 2 = 73.225
32.60 × 2 = 65.200

8.025 × 1 ÷ 0.00625 = 1284

160

Example₂: RX = 152.500MHz

$$N = \left[\frac{152.500 - 21.4}{2} - 28.5 \times 2 \right] \times \left(\frac{1}{0.00625} \right) = 1368$$

*Diodes are positioned at diode positions K, I, H, F, E, & C
---Frame of large "A" (CH1 of RX)

- K1000
- I 200
- H 100
- F 40
- E 20
- C 8

(Above examples' figures correspond to the attached DIODE MATRIX PLANNING chart.)

1396

$$\frac{145.650 - 21.4}{2} - 57 \times 160 = 820$$

$$820 = 145.650$$

$$688 = 144.000$$

$$772 = \del{772}, 145.050$$

$$796 = 145.350$$

$$1396 = 152.850$$

$$145.050 \cdot N = 772$$

$$62.100 \rightarrow 57 \times 160$$

816 120.8

K IH FE C
1 3 6 8

$$1 \div 0.00625 = 160$$

$$RX \quad 152.500 - 21.4 \div 2 = 65.55$$

$$28.5 \times 2 = 57.00$$

$$\frac{65.55}{57.00} \times 1 \div 0.00625 = 1368$$

Total F

$$RX \quad \boxed{152.500} \text{ MHz} - 21.4 \div 2 = \boxed{57} \times 160 = 1368$$

DIODE MATRIX ALIGNMENT PLANNING

NO.1

MHZ KHZ	135.140.145.150.155.160.165.170													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
000			o		o	o		o			o			
025				o	o	o		o			o			
050	o			o	o	o		o			o			
075		o		o	o	o		o			o			
100	o	o		o	o	o		o			o			
125			o	o	o	o		o			o			
150							o	o			o			
175	o						o	o			o			
200		o					o	o			o			
225	o	o					o	o			o			
250			o				o	o			o			
275				o			o	o			o			
300	o			o			o	o			o			
325		o		o			o	o			o			
350	o	o		o			o	o			o			
375			o	o			o	o			o			
400								o			o			
425	o							o			o			
450		o						o			o			
475	o	o						o			o			
500			o					o			o			
525				o				o			o			
550	o			o				o			o			
575		o		o				o			o			
600	o	o		o				o			o			
625			o	o				o			o			
650				o				o			o			
675	o			o				o			o			
700		o		o				o			o			
725	o	o		o				o			o			
750			o	o				o			o			
775			o	o				o			o			
800	o		o	o				o			o			
825		o	o	o				o			o			
850	o	o	o	o				o			o			
875		o	o	o				o			o			
900				o				o			o			
925	o			o				o			o			
950		o		o				o			o			
975	o	o		o				o			o			

MHZ KHZ	136.141.146.151.156.161.166.171													
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
000			o		o			o			o			
025				o	o			o			o			
050	o			o	o			o			o			
075		o		o	o			o			o			
100	o	o		o	o			o			o			
125			o	o	o			o			o			
150						o	o				o			
175	o					o	o				o			
200		o				o	o				o			
225	o	o				o	o				o			
250			o			o	o				o			
275				o		o	o				o			
300	o			o		o	o				o			
325		o		o		o	o				o			
350	o	o		o		o	o				o			
375			o	o		o	o				o			
400								o			o			
425	o							o			o			
450		o						o			o			
475	o	o						o			o			
500			o					o			o			
525				o				o			o			
550	o			o				o			o			
575		o		o				o			o			
600	o	o		o				o			o			
625			o	o				o			o			
650				o				o			o			
675	o			o				o			o			
700		o		o				o			o			
725	o	o		o				o			o			
750			o	o				o			o			
775			o	o				o			o			
800	o		o	o				o			o			
825		o	o	o				o			o			
850	o	o	o	o				o			o			
875		o	o	o				o			o			
900				o				o			o			
925	o			o				o			o			
950		o		o				o			o			
975	o	o		o				o			o			

CLYSTAL (MHZ)

(TX) (RX)
 135-140..30.10 / 24.75
 140-145..31.35 / 26.00
 145-150..32.60 / 27.25
 150-155..33.85 / 28.50

(TX) (RX)
 155-160.. 35.10 / 29.75
 160-165.. 36.35 / 31.00
 165-170.. 37.60 / 32.25
 170-175.. 38.85 / 33.50

DIODE MATRIX ALIGNMENT PLANNING

NO. 2

KHZ \ MHz	MHz													
	137	142	147	152	157	162	167	172						
KHZ	A	B	C	D	E	F	G	H	I	J	K	L	M	N
000			o	o				o	o		o			
025				o	b				o	o		o		
050	o			o	b				o	o		o		
075		b		o	o				o	o		o		
100	o	b		o	o				o	o		o		
125			o	o	o				o	o		o		
150						o			o	o		o		
175	o					o			o	o		o		
200		o				o			o	o		o		
225	o	o				o			o	o		o		
250			o			o			o	o		o		
275				o		o			o	o		o		
300	o			o		o			o	o		o		
325		o		o		o			o	o		o		
350	o	o		o		o			o	o		o		
375			o	b		o			o	o		o		
400				o	o				o	o		o		
425	o				o	o			o	o		o		
450		o			o	o			o	o		o		
475	b	o			o	o			o	o		o		
500			o		o	o			o	o		o		
525				o	o	o			o	o		o		
550	b			o	o	o			o	o		o		
575		o		o	o	o			o	o		o		
600	b	o		o	o	o			o	o		o		
625			o	o	o	b			o	b		o		
650							o	o	b			o		
675	b						o	o	b			o		
700		o					o	o	b			o		
725	o	o					o	o	b			o		
750			b				o	o	b			o		
775				o			o	o	b			o		
800	o			o			o	b	o			o		
825		o		o			o	o	o			o		
850	o	b		o			o	o	o			o		
875			o	o			o	o	o			o		
900									o	o				
925	o								o	o				
950		o							b	o				
975	o	o							b	o				

KHZ \ MHz	MHz													
	138	143	148	153	158	163	168	173						
KHZ	A	B	C	D	E	F	G	H	I	J	K	L	M	N
000			o								o	o		
025				o							o	o		
050	o			o							o	o		
075		o		o							o	o		
100	o	o		o							o	o		
125			o	o							o	o		
150					o						o	o		
175	o				o						o	o		
200		o			o						o	o		
225	o	o			o						o	o		
250			o		o						o	o		
275				o	o						o	o		
300	o			o	o						o	o		
325		o		o	o						o	o		
350	o	o		o	o						o	o		
375			o	o	o						o	o		
400						o					o	o		
425	o				o	o					o	o		
450		o			o	o					o	o		
475	o	o			o	o					o	o		
500			o		o	o					o	o		
525				o	o	o					o	o		
550	o			o	o	o					o	o		
575		o		o	o	o					o	o		
600	o	o		o	o	o					o	o		
625			o	o	o	o					o	o		
650							o	o	o			o	o	
675	o						o	o	o			o	o	
700		o					o	o	o			o	o	
725	o	o					o	o	o			o	o	
750			o				o	o	o			o	o	
775				o	o	o					o	o		
800	o			o	o	o					o	o		
825		o		o	o	o					o	o		
850	o	o		o	o	o					o	o		
875			o	o	o	o					o	o		
900									o		o	b		
925	b								o		o	b		
950		o								o		o	b	
975	b	o								o		o	b	

型式 PTT 名称 CONTROL - 1 回路定数表 日付
 TRANSCLEVER 型

記号	品名	型式	定 格	数量	製造会社	引用規格 または図番	備 考
		FRONT COVER	- See the at- tached sheet-	1			
		REAR COVER	- See the at- tached sheet. -	1			
		CHASSIS		1		SV-1100-3	
		BATTERY CASE	- See the at- tached sheet. -	1			
		"	"	1			
		SW. LEVER		1		SV-1100-6	
		RADIATOR BOARD		1		SV-1100-7	
		SHIELD CASE (I)		1		SV-1100-8	
		SHIELD CASE (II)		1		SV-1100-9	
		SHIELD CASE (III)		1		SV-1100-10	
		KNOB	- See the at- tached sheet. -	2			
		KNOB	"	1			
		CONTROL PLATE	"	1			
		NAME PLATE	"	1			
		INSULATING PAPER (SHIELD CASE)		2		SV-1100-15	
		CONTACT SPRING		2		SV-1100-16A	
		P.C. BOARD (CONTROL)	- See the at- tached sheet. -	1			
		P.C. BOARD (PTT SW)		1		SV-1100-20B	
		P.C. BOARD (CHARGING TERMINAL)		1		SV-1100-21A-1	
		P.C. BOARD (CONNECTING POINT MAIN BODY SIDE)		1		SV-1100-22	
		P.C. BOARD (BATTERY SIDE)		1		SV-1100-23B	
		TERMINAL PLATE	- See the at- tached sheet. -	1			
		KNOB(A) INSERT	"	2		SV-1100-25	
		KNOB(B) INSERT	"	1		SV-1100-26	
		STYROL BOX		1		SV-1100-28	
		GIFT BOX	- See the at- tached sheet	1			
		SPEAKER CROSS		1		SV-1100-36	
		HAND STRAP	- See the at- tached sheet. -	1			
		CARRING CASE	- See the at- tached sheet. -	1			
		MANUAL	"	1			
		VYNIL BAG (for MAIN BODY)		1			
		VYNIL BAG (for ANTENNA)		1			
		ANTENNA	- See the at- tached sheet. -	1			
		FREQ. PLATE	"	1			
		CHANNEL SEAL	"	1			
		WATERPROOF CAP (SV-1100)	"	1			
		WATERPROOF CAP (SV-8001)		1		SV-8001-41A	
		HOOK PLATE	- See the at- tached sheet. -	1			

		型式 PTT TRANSCEIVER 型		名称			回路定数表	日付
記号	品名	型式	定 格	数量	製造会社	引用規格 または図番	備 考	
	MOULD			2		SV-1100-45		
	MOULD			1		SV-1100-46		
	MOULD (FITTING SPEAKER)			1		SV-1100-47		
	INSULATION FIBER			1		SV-1100-74		
	STUTT			4		SV-1100-63A		
	STOPPER			1		SV-1100-48		
	VOC Pat			1		SV-1100-100		
	CHARGER PLATE		-See the at- tached sheet	1				
	TA NAME PLATE		-See the at- tached sheet	1				
	EARPHONE		-See the at- tached sheet	1				
	BELT CLIP		-See the at- tached sheet	1				
	MACHINE SCREW CROSS-RECESSED							
		PAN TYPE	2 x 4	2				
		"	2 x 3	2				
		BINDING TYPE	2 x 3	12				
	TAPPING SCREW							
		TYPE B CUTTING	2 x 5	1				
	XEXAGON SOCKET HEADLESS SET SCREW							
			3 x 3	1		DOUBLE POINT		
	MACHINE SCREW CROSS-RECESSED							
		TYPE BINDING	3 x 4	2		- See the attached sheet-		
	WIRE LIST		- See the at- tached sheet -					
承認	検図	製作	型式		回路図 図 番		2	

型式 PTT 名称 CONTROL - 2 回路定数表
 TRANSCEIVER 型

日付

記号	品名	型式	定 格	数量	製造会社	引用規格 または図番	備 考
D301	LED	SLP-102A		1			
D302	"	SLP-102A		1			
D303	DIODE		10D-1	1			
D304	"		- See the at- tached sheet. -	1			
J301	ANT. JACK	BNC-R		1			
J302	EXT. SP		- See the at- tached sheet. -	1			
J303	EXT. MIC	SR30-10R-6S		1			
J304	CHARGER JACK		- See the at- tached sheet. -	1			
SP301	SPEAKER	C040A13A0000		1			
MIC301	MIC.	WM-063T		1			
SW302	RF POWER		- See the at- tached sheet. -	1			
SW303	PTT	EVQ-QS205K		1			
SW304	CHANNEL		- See the at- tached sheet. -	1			
VR301	SQ		- See the at- tached sheet. -	1			
VR302	VOL.	V12M4-1S(SJ)15S	5A5K	1			
B301	BATTERY		- See the at- tached sheet. -	1			
	BATTERY CHARGER		"	1			
C301	SOLID CAPACITOR	CERAMIC	DD104-CH240J50V	1			
C302	"	"	DD104B102K50V	1			
C303	"	"	DD104B102K50V	1			
C304	"	"	DD104B102K50V	1			
R301	SOLID RESISTER		ERD-16TJ223	1			

承認 検図 製作 型式 回路図番 SV-1100-542 3

記号	品名	型式	定 格	数量	製造会社	引用規格 または図番	備 考
L201	COIL		SR5	1			
L202	"		"	1			
L203	"		"	1			
L204	"		"	1			
L205	"		2R	1			
L206	"		1852	1			
VR201	SEMI-VARIABLE RESISTER	EVN-B3A-A00-B14		1			
VR202	"	" EVN-A1A-A00-B54		1			
VR203	"	" EVN-B1A-A00-B14		1			
TH201	THERMISTER		35D26	1			
TH202	"		"	1			
D201	DIODE		1S1588	1			
D202	"		MC931	1			
D205	"		- See the at- tached sheet. -	1			
D206	"		MA522	1			
D207	"		1S1588	1			
D208	"		1K60	1			
D210	"		1S1588	1			
J201	CONNECTOR		PD07A03M	1			
J203	"		PD07A05M	1			
J204	"		PD07A05M	1			
	PIN		507201-2M	12			
	P.C. BOARD		SV-1100-RX	1			
X201	CRYSTAL	UM-1	- See the at- tached sheet. -	1			
承認	検図	製作	型式	回路図 図番	SV-1100-543		4

型式 PTT 名称 RX - 1
TRANSCEIVER 回路定数表 日付

記号	品名	型式	定 格	数量	製造会社	引用規格 または図番	備 考
L201	COIL		SR5	1			
L202	"		"	1			
L203	"		"	1			
L204	"		"	1			
L205	"		2R	1			
L206	"		1852	1			
1	VR201	SEMI-VARIABLE RESISTER	EVN-B3A-A00-B14	1			
2	VR202	"	EVN-A1A-A00-B54	1			
3	VR203	"	EVN-B1A-A00-B14	1			
4							
5	TH201	THERMISTER	35D26	1			
6	TH202	"	"	1			
7							
8							
9							
10							
11	D201	DIODE	1S1588	1			
12	D202	"	MC931	1			
13	D205	"	- See the at- tached sheet. -	1			
14	D206	"	MA522	1			
15	D207	"	1S1588	1			
16	D208	"	1K60	1			
17							
18							
19							
20							
21	D210	"	1S1588	1			
22							
23							
24	J201	CONNECTOR	PD07A03M	1			
25							
26	J203	"	PD07A05M	1			
27	J204	"	PD07A05M	1			
28		PIN	507201-2M	12			
29							
30		P.C. BOARD	SV-1100-RX	1			
31							
32	X201	CRYSTAL	UM-1	- See the at- tached sheet. -	1		

記号	品名	型式	定 格	数量	製造 会社	引用規格 または図番	備 考
TR201	TRANSISTER		2SC2603	1			
TR202	"		"	1			
TR203	"		2SA1115	1			
TR204	"		2SC2603	1			
TR205	"		"	1			
TR206	"		2SA1115	1			
TR207	"		"	1			
TR208	"		2SC2603	1			
TR209	"		2SB621	1			
TR210	"		2SC2603	1			
TR211	"		2SC2603	1			
TR212	"		2SA1115	1			
TR213	"		2SC2603	1			
TR214	"		"	1			
TR215	"		2SB621	1			
TR216	FET		2SK192	1			
TR217	TRANSISTER		2SC2603	1			
TR218	"		2SA1115	1			
TR220	"		2SC2603	1			
TR221	FET		3SK72	1			
TR222	"		2N5668	1			
TR223	TRANSISTER		2SC2724	1			
TR224	"		"	1			
TR225	"		2SC2603	1			
TR226	"		"	1			
TR227	"		2SA1115	1			
IC201	I.C.		MC3359P	1			
IC202	I.C.		TBA820M	1			
FL201	CRYSTAL FILTER		- See the at- tached sheet. -	1			
FL202	CERAMIC FILTER		"	1			

型式 PTT 名称 RX - 3
TRANSCEIVER 型 回路定数表 日付

記号	品名	型式	定 格	数量	製造会社	引用規格 または図番	備 考
R201	SOLID RESISTER		ERD-16EJ-473	1			
R202	"		" -823	1			
R203	"		" -223	1			
R204	"		" -473	1			
R205	"		" -102	1			
R206	"		" -332	1			
R207	"		" -222	1			
R208	"		" -222	1			
R209	"		" -472	1			
R210	"		" -102	1			
R211	"		" -473	1			
R212	"		" -823	1			
R213	"		" -472	1			
R214	"		" -822	1			
R215	"		" -103	1			
R216	"		" -222	1			
R217	"		" -332	1			
R218	"		" -103	1			
R219	"		" -332	1			
R220	"		" -102	1			
R221	"		" -102	1			
R222	"		" -472	1			
R223	"		" -223	1			
R224	"		" -101	1			
R225	"		" -473	1			
R228	"		" -104	1			
R229	"		" -561	1			
R230	"		" -222	1			
R231	"		" -330	1			
R232	"		- See the at- tached sheet. -	1			
R233	"		" -471	1			
R234	"		" -332	1			
R235	"		" -822	1			
R236	"		" -103	1			
R237	"		" -223	1			

承認	検図	製作	型式	回路図 図番	SV-1100-545	6
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		型式	PTT	名称	RX - 4			回路定数表	日付
記号	品名	型式	定	格	数量	製造 会社	引用規格 または図番	備考	
R240	SOLID RESISTER		ERD-16EJ-222		1				
R241	"		" -223		1				
R242	"		" -153		1				
R243	"		" -563		1				
R244	"		" -221		1				
R245	"		" -221		1				
R246	"		" -102		1				
R247	"		ERD-10EJ-471		1				
R248	"		ERD-16EJ-681		1				
R249	"		" -473		1				
R250	"		" -224		1				
R251	"		" -332		1				
R252	"		" -221		1				
R254	"		" -223		1				
R255	"		" -561		1				
R256	"		" -222		1				
R257	"		" -152		1				
R258	"		" -224		1				
R259	"		" -103		1				
R260	"		" -821		1				
R261	"		- See the at- tached sheet. -		1				
R262	"		ERD-16EJ-223		1				
R263	"		ERD-10EJ-563		1				
R264	"		ERD-16EJ-560		1				
R265	"		" -103		1				
R267	"		" -560		1				
R268	"		ERD-10EJ-681		1				
R269	"		ERD-16EJ-104		1				
R270	"		ERD-16TJ-103		1				
R271	"		- See the at- tached sheet. -		1				
R272	"		-See the at- tached sheet. -		1				
R273			- See the at- tached sheet. -		1				
承認	検図	製作	型式		回路図 図番	SV-1100-546		7	

		型式PTT TRANSCEIVER型		名称 RX - 5		回路定数表		日付
記号	品名	型式	定 格	数量	製造 会社	引用規格 または図番	備 考	
C201	SOLID CAPACITOR	TANTALUM ELECTROLYTIC	ECS-FIVE-105	1		1u/35V		
C202	"	AL. ELECTROLYTIC	ECEA1AK330	1		33u/10V		
C203	"	CERAMIC	DD104B102K50V	1				
C204	"	CERAMIC	DD107CH101J50V	1				
C205								
C206	"	POLYESTER FILM	AMZ472	1				
C207	"	"	AMZ222	1				
C208	"	CERAMIC	DD104B102K50V	1				
C209	"	"	"	1				
C210	"	"	"	1				
C211	"	"	"	1				
C212	"	"	"	1				
C214	"	TANTALUM ELECTROLYTIC	ECS-FIVE-105	1		1u/35V		
C215	"	CERAMIC	TP125X153N	1				
C216	"		- See the at- tached sheet. -	1		10u/16v		
C217	"	"	ECEA1CK100	1				
C218	"	CERAMIC	DD104B102K50V	1				
C219	"	"	"	1				
C220	"	"	"	1				
C221	"	TANTALUM ELECTROLYTIC	ECSFIVE105	1		1u/35V		
C222	"	CERAMIC	DD104B102K50V	1				
C223	"	"	"	1				
C224	"	"	"	1				
C225	"	AL. ELECTROLYTIC	ECEA1AK101	1		100u/10V		
C226	"	CERAMIC	DD104B102K50V	1				
C227	"	"	"	1				
C228	"	AL. ELECTROLYTIC	ECEA1AK330	1		33u/10V		
C229	"	CERAMIC	DD104B102K50V	1				
C230	"	"	"	1				
C231	"	TANTALUM ELECTROLYTIC	ECSFIVE224	1		0.2u/35V		
C233	"	CERAMIC	DD104B102K50V	1				
C234	"	"	"	1				
C236	"	AL. ELECTROLYTIC	ECEA1CK100	1		10u/16V		
C237	"	TANTALUM ELECTROLYTIC	ECSFIVE225	1		2.2u/35V		
C238	"	CERAMIC	DD105CH300J50V	1				
C239	"	"	- See the at- tached sheet. -	1				
承認	検図	製作	型式		回路図 図番	SV-1100-547		8

		型式PTT TRANSCEIVER型		名称 RX - 6		回路定数表		日付
記号	品名	型式	定 格	数量	製造 会社	引用規格 または図番	備 考	
C240	SOLID CAPACITOR	CERAMIC	DD104CK010C50V	1				
C241	"	"	- See the at- tached sheet. -	1				
C243	"	"	DD104B102K50V	1				
C244	"	"	"	1				
C245	"	"	- See the at- tached sheet. -	1				
C246	"	"	DD104CH0R5C50V	1				
C247	"	"	- See the at- tached sheet. -	1				
C248	"	"	DD104UJ120J50V	1				
C249	"	"	DD104B102K50V	1				
C250	"	"	- See the at- tached sheet-	1				
C251	"	"	"	1				
C252	"	"	DD104B102K50V	1				
C253	"	"	"	1				
C254	"	"	"	1				
C255	"	AL. ELECTROLYTIC	ECEA1AK101	1		100u/10V		
C256	"	Sr.-BL. CERAMIC	UAT06V223	1				
C257	"	CERAMIC	DD105CH300J50V	1				
C258	"	"	DD105SL101J50V	1				
C259	"	Sr.-BL. CERAMIC	UAT06V223	1				
C260	"	" "	"	1				
C261	"	" "	"	1				
C262	"	AL. ELECTROLYTIC	ECEA1CK100	1		10u/16V		
C263	"	CERAMIC	ROU04B471K	1		470P		
C264	"	"	DD104B102K50V	1				
C265	"	AL. ELECTROLYTIC	ECEA1CK100	1		10u/16V		
C266	"	TANTALUM ELECTROLYTIC	ECSFIVE225	1		2.2u/35V		
C267	"	POLYESTER FILM	AMZ102	1				
C268	"	"	"	1				
C270	"	AL. ELECTROLYTIC	ECEA1CK100	1		10u/16V		
C271	"	TANTALUM ELECTROLYTIC	ECSFIVE225	1		2.2u/35V		
C272	"	"	ECSFIVE105	1		1u/35V		
C273	"	CERAMIC	DD104B102K50V	1				
C274	"	POLYESTER FILM	AMZ103	1				
C275	"	AL. ELECTROLYTIC	ECEA1AK330	1		33u/10V		
C276	"	"	"	1		"		
C277	"	"	ECEA1CK100	1		10u/16V		
C278	"	CERAMIC	DD104B102K50V	1				

型式 PTT 名称 PLL-1 回路定数表 日付
 TRANSCEIVER 型

記号	品名	型式	定 格	数量	製造 会社	引用規格 または図番	備 考
TR101	TRANSISTOR		2SC2724	1			
TR102	"		2SC2026	1		or 2SC2753	
TR103	"		2SC2724	1			
TR104	"		2SC2055	1			
TR105	"		2SC3019	1			
TR106	"		- See the at- tached sheet. -	1			
TR107	"		2SD965	1			
TR108	"		2SA115	1			
TR109	"		"	1			
TR110	FET		2SK192	1			
TR111	TRANSISTOR		2SC2724	1			
TR112	"		"	1			
TR113	"		"	1			
TR114	"		2SC2603	1			
TR115	"		2SC535	1			
D101	DIODE		1S1588	1			
D102	"		VD1123	1			
D103	"		MI301	1			
D104	"		"	1			
D106	"		FC52M	1		or 1SV185	
D107	"		MC931	1			
D108	"		1SS53	1			
D109	"		1SS53	1			
D110	"		MC301	1			
D111	"		MC301	1			
D112	"		- See the at- tached sheet. -	1			
IC101	I.C.		TC9122	1			
IC102	"		TC5082	1			
IC103	"		TC5081	1			

記号	品名	型式	定 格	数量	製造 会社	引用規格 または図番	備 考
X101	CRYSTAL	UM-1	- See the at- tached sheet. -	1			
X102	"	"	"	1			
X103	"	"	"	1			
X104	"	"	"	1			
L101	COIL		SR1	1			
L102	"		ST5	1			
L103	"		"	1			
L104	"		SR1	1			
L105	"	AIR DUG	512	1			
L106	"	"	510	1			
L107	"	"	512	1			
L108	"	"	510	1			
L109	"	"	512	1			
L110	"	"	511	1			
L111	"	"	513	1			
L112	"	"	511	1			
L113	"	"	511	1			
L114	"	"	501	1			
L118	"		4R2	1			
L119	"		SR3	1			
L120	"		- See the at- tached sheet. -	1			
	CRYSTAL SOCKET		- See the at- tached sheet. -	2			

承認

検図

製作

型式

回路図
図番

SV-1100-551

型式 PTT 名称 PLL-4
TRANSCEIVER 回路定数表 日付

記号	品名	型式	定格	数量	製造会社	引用規格 または図番	備考
C101	SOLID CAPACITOR	CERAMIC	DD105CH200J50V	1			
C102	"	"	DD104CH0R5C50V	1			
C103	"	"	- See the at- tached sheet. -	1			
C104	"	"	"	1			
C105	"	AL. ELECTROLYTIC	ECEA1AK330	1		33u/10V	
C106	"	CERAMIC	DD104B102K50V	1			
C107	"	"	"	1			
C108	"	"	"	1			
C109	"	"	- See the at- tached sheet. -	1			
C110	"	"	"	1			
C111	"	"	DD104CH010D50V	1			
C112	"	"	DD105CH300J50V	1			
C113	"	"	DD104B102K50V	1			
C114	"	"	"	1			
C115	"	"	"	1			
C116	"	AL. ELECTROLYTIC	ECEA1AK330	1		33u/10V	
C117	"	CERAMIC	- See the at- tached sheet. -	1			
C118	"	"	DD104B102K50V	1			
C119	"	"	"	1			
C120	"	"	"	1			
C121	"	"	"	1			
C122	"	"	"	1			
C123	"	"	DD104B102K50V	1			
C124	"	AL. ELECTROLYTIC	ECEA1CK100	1		10u/16V	
C126	"	CERAMIC	- See the at- tached sheet. -	1			
C127	"	"	"	1			
C128	"	"	"	1			
C129	"	"	DD104CH050D50V	1			
C130	"	"	DD104B102K50V	1			
C131	"	"	"	1			
C132	"	"	"	1			
C133	"	"	"	1			
C134	"	"	DD104CH240J50V	1			
C135	"	"	DD104CH060J50V	1			
C136	"	"	DD106CH510J50V	1			
C137	"	"	DD104B102K50V	1			
C138	"	"	"	1			
C139	"	"	"	1			

型式 PTT TRANSCEIVER 型 名称 PLL-5 回路定数表 日付

記号	品名	型式	定 格	数量	製造 会社	引用規格 または図番	備 考
C140	SOLID CAPACITOR	CERAMIC	DD104B102K50V	1			
C141	"	"	"	1			
C142	"	"	"	1			
C143	"	"	"	1			
C144	"	"	"	1			
C145	"	"	"	1			
C146	"	"	DD105CH300J50V	1			
C147	"	"	DD105CH300J50V	1			
C148	"	"	DD104B102K50V	1			
C149	"	AL. ELECTROLYTIC	ECEA1CK100	1		10u/16V	
C150	"	CERAMIC	DD104B102K50V	1			
C151	"	TANTALUM ELECTROLYTIC	- See the at- tached sheet. -	1			
C152	"	CERAMIC	UAT05X472M	1			
C154	"	"	DD104B102K50V	1			
C155	"	"	"	1			
C158	"	CERAMIC	- See the at- tached sheet. -	1			
C159	"	"	DD104B102K50V	1			
C160	"	POLYESTER	AMZ102	1			
C161	"	AL. ELECTROLYTIC	ECEA1AK330	1		33u/10V	
C162	"	CERAMIC	- See the at- tached sheet. -	1			
C163	"	"	"	1			
C164	"	"	"	1			
C165	"	"	DD104B102K50V	1			
C166	"	"	- See the at- tached sheet. -	1			
C167	"	"	DD104CH020D50V	1			
C168	"	"	DD104B102K50V	1			
C172	"	"	DD104B102K50V	1			
C173	"	"	"	1			
C174	"	"	"	1			
C175	"	"	DD104CH080D50V	1			
C176	"	"	DD104CH100D50V	1			
C177	"	"	- See the at- tached sheet. -	1			
C178	"	"	"	1			
承認	検図	製作	型式	回路図 番	SV-1100-554		15

記号	品名	型式	定 格	数量	製造会社	引用規格 または図番	備 考
C179	SOLID CAPACITOR	CERAMIC	DD104B102K50V	1			
C180	"	"	ROU04SA101JL05AE	1			
C181	"	"	DD104B102K50V	1			
C183	"	"	DD106CH620J50V	1			
C184	"	"	- See the at- tached sheet. -	1			
C185	"	"	DD104B102K50V	1			
C186	"	"	- See the at- tached sheet. -	1			
C187	"	"	DD104B102K50V	1			
C188	"	"	"	1			
C189	"	"	"	1			
C190	"	AL. ELECTROLYTIC	ECEA1AKS330	1		33/10V	
C191	"	CERAMIC	DD104CH060D50V	1			
C192	"	"	DD104B102K50V	1			
C193	"	"	"	1			
C194	"	"	- See the at- tached sheet. -	1			
C195	"	"	DD104B102K50V	1			
C197	"	"	DD104CH100D50V	1			
C198	"	"	- See the at- tached sheet. -	1			
C199	"	"	DD104CH100D50V	1			
C601	"	"	DD104B102K50V	1			
C602	"	"	"	1			
C603	"	"	"	1			
C604	"	"	"	1			
C605	"	"	"	1			
C607	"	TANTALUM ELECTROLYTIC	- See the at- tached sheet. -	1			
C608	"	AL. ELECTROLYTIC	ECEA1EK3R3	1			

記号	品名	型式	定 格	数量	製造 会社	引用規格 または図番	備 考
R101	SOLID RESISTER		ERD-16EJ-104	1			
R102	"		" -563	1			
R103	"		" -103	1			
R104	"		" -560	1			
R105	"		" -101	1			
R106	"		" -151	1			
R107	"		" -220	1			
R108	"		" -220	1			
R109	"		" -470	1			
R110	"		ERD-16TJ-2R2	1			
R111	"		ERD-16EJ-330	1			
R112	"		" -470	1			
R113	"		" -221	1			
R114	"		" -473	1			
R115	"		" -473	1			
R118	"		- See the at- tached sheet. -	1			
R119	"		"	1			
R120	"		ERD-16TJ-103	1			
R121	"		ERD-16EJ-104	1			
R122	"		" -472	1			
R123	"		" -153	1			
R124	"		" -101	1			
R125	"		" -471	1			
R126	"		" -222	1			
R127	"		" -222	1			
R128	"		- See the at- tached sheet. -	1			
R129	"		ERD-16EJ-333	1			
R130	"		" -154	1			
R131	"		" -222	1			
R132	"		" -333	1			
R133	"		" -103	1			
R134	"		" -102	1			
R135	"		" -222	1			
R137	"		" -561	1			
R139	"		" -154	1			

記号	品名	型式	定 格	数量	製造 会社	引用規格 または図番	備考
1 IC801	IC		MX335L	1			
2							
3							
4 TR801	Transistor		2SC2603	1			
5							
6							
7 D801	Diode		1S1588	1			
8 D802	"		1K60	1			
9							
10 X801	Ceralock		CSB1000D	1			
11							
12							
13							
14 VR801	Variable resistor		EVN-B3AA00B14	1		approx. 10K	
15							
16							
17							
18 R801	Resistor		RD16S 562	1		not used	
19 R802	"		" 104	1			
20 R803	"		334	1			
21 R804	"		" 103	1			
22 R805	"		" 105	1			
23 R806	"		" 104	1			
24 R807	"		" 473	1			
25 R808	"		" 473	1			
26 R809	"		" 824	1			
27 R810	"		" 564	1			
28 R811	"		" 472	1			
29							
30							
31							
32							
33							
34							
35							
36							
37							
38							
39							

記号	品名	型式	定格	数量	製造会社	引用規格 または図番	備考
1	J801	Connector	PI22B03M	1			
2	J802	"	PI22B06M	1			
3							
4	SW801	Dip SW	DSS706	1			
5							
6							
7							
8	C801	Capacitor	0.001uF	DD104B102K50V	1		
9	C802	"	10u/16V	ECEB1CK100	1		
10	C803	"	0.47u/20V	ECSZ20MAR47	1		
11	C804	"	"	"	1		
12	C805	"	0.001uF	DD104B102K50V	1		
13	C806	"	"	"	1		
14	C807	"	"	"	1		
15	C808	"	"	"	1		
16	C809	"	10u/16V	ECEB1CK100	1		
17	C810	"	0.047u/35V	ECSZ35MA473	1		
18	C811	"	0.0047uF(UAT)	UAT05X472	1		
19	C812	"	0.022uF	RPE110B223	1		
20	C813	"	1u/25V	ECSZ25MA1	1		
21	C814	"	0.001uF	DD104B102K50V	1		
22	C815	"	10u/16V	ECEB1CK100	1		
23	C818	"	"	"	1		
24	C819	"	0.001uF	DD104B102K50V	1		
25	C820	"	CH30P	DD105CH300J50V	1		
26	C821	"	"	"	1		
27	C827	"	0.001uF	DD104B102K50V	1		
28							
29							
30							
31		PCB		TOT-CICSS	1		
32							
33		Insulator board		SV-1100-74	1		
34		"		SV-1100-74A	1		
35		Stutt		SV-1100-63A	3		
36							
37							
38							
39							

		型式 名称 ATTACHED SHEET				回路定数表	日付
記号	品名	型式	定 格	数量	製造会社	引用規格 または図番	備 考
1		FRONT COVER		1		SV-1100-1	
2		REAR COVER		1		SV-1100-2B	
3		BATTERY CASE		1		SV-1100-4	
4		"		1		SV-1100-5	
5		KNOB		2		SV-1100-11	
6		KNOB		1		SV-1100-12	
7		CONTROL PLATE		1		SV-1100-145	
8		NAME PLATE		1		SV-1100-14A	
9		P.C. BOARD (CONTROL)		1		SV-1100-19D	
10		TERMINAL PLATE		1		SV-1100-24	
11		KNOB (A) INSERT		2		SV-1100-25	
12		KNOB (B) INSERT		1		SV-1100-26	
13		GIFT BOX	SV-1100	1			
14		HAND STRAP	SV-9001	1			
15		CARRYING CASE	SV-1100H	1			
16		MANUAL	LAND TYPE	1			
17		ANTENNA	SS-139HNA	1			
18		FREQ. PLATE		1		SV-1100-59	
19		CHANNEL SEAL	non-use	1			
20		WATERPROOF CAP (SV-1100)		1		SV-1100-56	
21		HOOK PLATE		1		SV-1100-51	
22		CHARGER PLATE		1		SV-1100-69	
23				1			
24		TA NAME PLATE	non-use	1			
25		MACHINE SCREW CROSS-RECESSED		2			
26		TYPE BINDING 3 x 4					
27		WIRE LIST					
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承認	検図	製作	型式	STD CTCSS SV-1100L-6	回路図 図番		

記号	品名	型式	定 格	数量	製造会社	引用規格 または図番	備 考
1	D304	DIODE	10D-1	1			
2	J302	EXT. SP	HSJ0296-01-150	1			
3	J304	CHARGER JACK	HSJ-0289-01-150	1			
4	SW302	RF POWER	SSS-212	1			
5	SW304	CHANNEL	MR2-6S	1			
6	VR301	SQ	V12M4-1SSJ15SB50K	1			
7	B301	BATTERY	P06E-F23B3	1			
8		BATTERY CHARGER	BC-011	1			
9							
10	P801	CONNECTOR		1		SV-1100-711	
11	P802	"		1		SV-1100-712	
12							
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型式 名称 ATTACHED SHEET 回路定数表 日付

記号	品名	型式	定格	数量	製造会社	引用規格 または図番	値
1	TR106	TRANSISTOR	2SC3379	1			
2	D112	DIODE	MC301	1			
3	X101	CRYSTAL	UM-1	1			
4	X102	"	"	1			
5	X103	"	"	1			
6	X104	"	"	1			
7	L120	COIL	"	1			
8		CRYSTAL SOCKET	"	2			
9	VC108	SEMI-VARIABLE CAPACITOR	CTZ31E	1			
10	CH108	CHOKE	LAL03NA-6R8M	1			
11	C103	SOLID CAPACITOR	CERAMIC	1			
12	C104	"	"	1			
	C109	"	"	1			
14	C110	"	"	1			
15	C117	"	"	1			
16	C126	"	"	1			
17	C127	"	"	1			
18	C128	"	"	1			
19	C158	"	"	1			
20	C162	"	"	1			
21	C163	"	"	1			
22	C164	"	"	1			
23	C166	"	"	1			
	C177	"	"	1			
25	C178	"	"	1			
26	C184	"	"	1			
27	C186	"	"	1			
28	C194	"	"	1			
29	C198	"	"	1			
30	C607	"	TANTALUM ELECTROLYTIC	1			
31	R118	SOLID RESISTOR		1			
32	R119	"		1			
33	R128	"		1			
34	R149	"		1			
35	R150	"		1			
36							
	C151	SOLID CAPACITOR	TANTALUM ELECTROLYTIC	1		3.3u	
18							
19							
承認	検図	製作	型式	SV-1100L-6	回路図 図番		

	型式 名称 ATTACHED SHEET	回路定数表	日付
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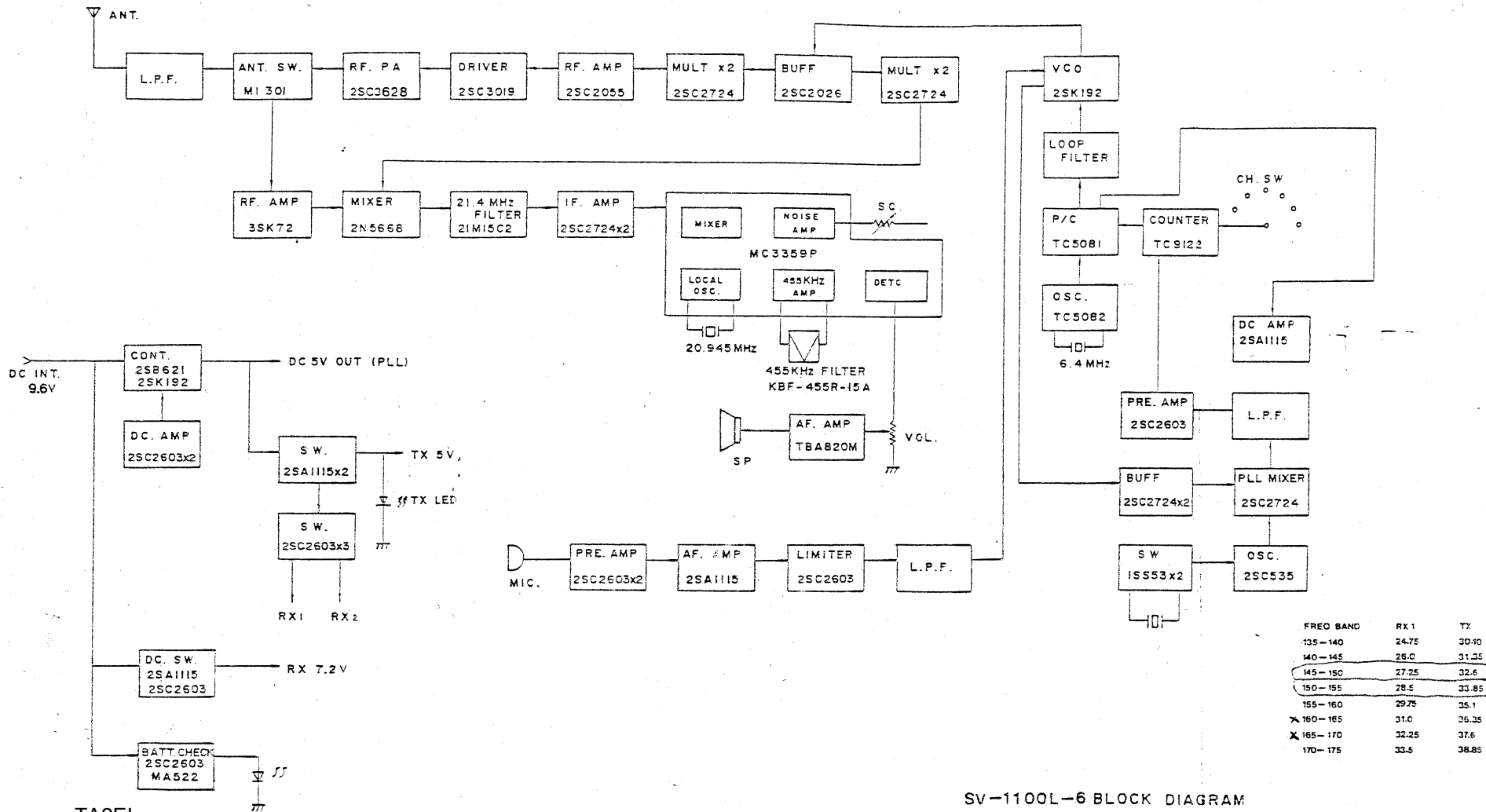
記号	品名	型式	定格	数量	製造会社	引用規格 または図番	備考
1	P.C. BOARD		SV-100L-1125B	1			
2	J401 CONNECTOR		SV-1100-560	1			
3	D401- D423 DIODE						
4							
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承認	検図	製作	型式	SV-1100L-6	回路図 図番	
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		型式 名称 ATTACHED SHEET				回路定数表		日付
記号	品名	型式	定 格	数量	製造 会社	引用規格 または図番	備 考	
1	D205	DIODE	HZ5C1	1				
2	X201	CRYSTAL	UM-1 20.945MHz	1				
3	FL201	CRYSTAL FILTER	21M15C2	1				
4	FL202	CERAMIC FILTER	KBF-445R-15A	1				
5	R261	SOLID RESISTOR	ERD-16EJ-222	1				
6	R272	"	non-use	1				
7	C216	SOLID CAPACITOR	ECEA1CK100	1		10u/16V		
8	C239	"	CERAMIC depends on	1				
9	C241	"	" freq. range	1				
10	C245	"	"	1				
11	C247	"	"	1				
12	C250	"	" DD104 CH080J	1				
13	C251	"	"	1				
14								
15	R232	SOLID RESISTOR	ERD-16EJ-2R2					
16	R271	"	non-use					
17	R273	"	"					
18								
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承認	検図	製作	型式	SV-1100L-6	回路図 図番			

TRUTH TABLE CODE PROGRAMMING

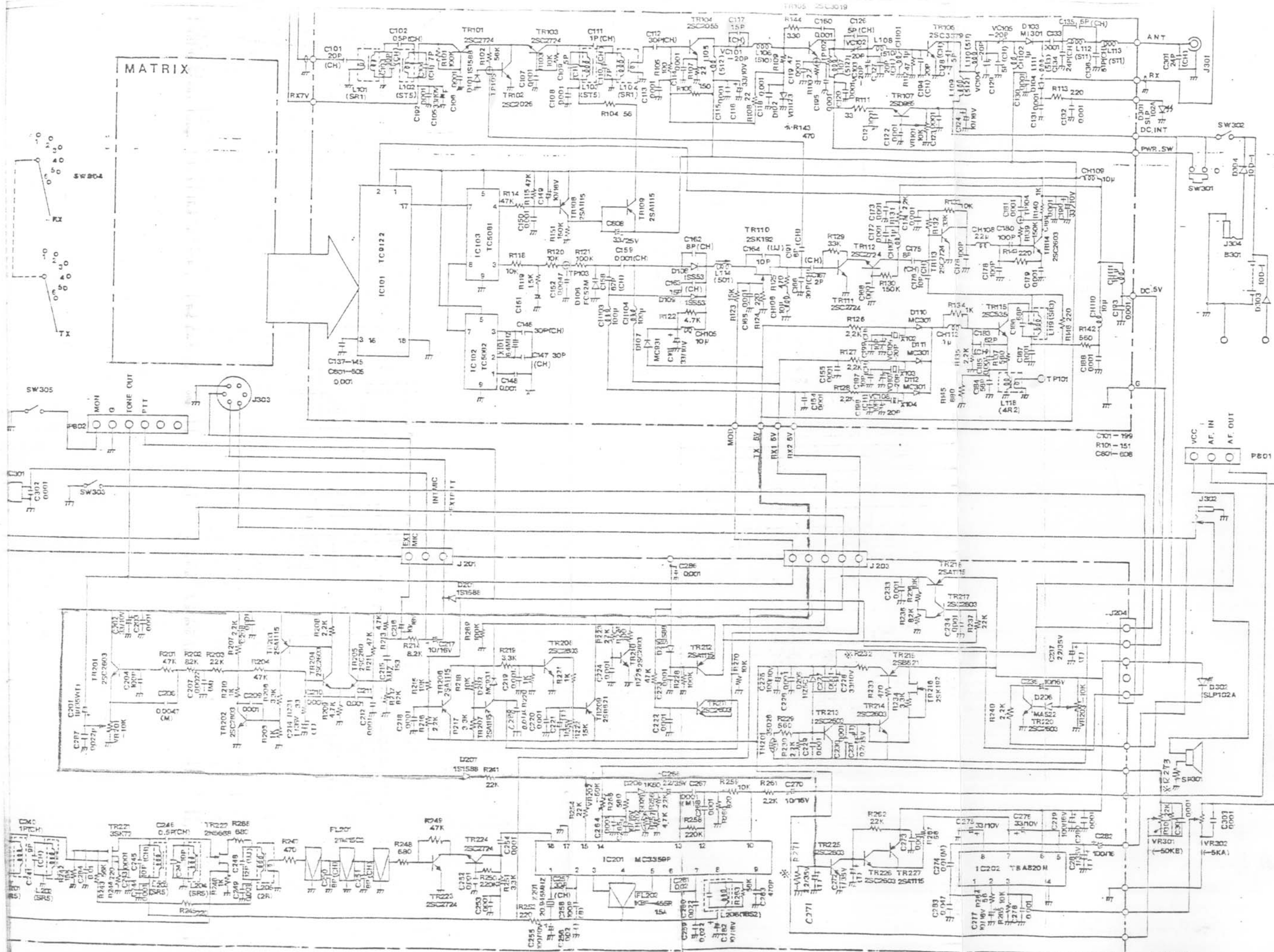
#	EIA SPECIFICATION		PROGRAM LINES					
	Group	Frequency HZ	D(0)	D(1)	D(2)	D(3)	D(4)	D(5)
1	A	67.0	1	1	1	1	1	1
2	B	71.9	1	1	1	1	1	0
3	C	74.4	0	1	1	1	1	1
4	A	77.0	1	1	1	1	0	0
5	C	79.7	1	0	1	1	1	1
6	B	82.5	0	1	1	1	1	0
7	C	85.4	0	0	1	1	1	1
8	A	88.5	0	1	1	1	0	0
9	C	91.5	1	1	0	1	1	1
10	B	94.8	1	0	1	1	1	0
11	-	97.4	0	1	0	1	1	1
12	A	100.0	1	0	1	1	0	0
13	B	103.5	0	0	1	1	1	0
14	A	107.2	0	0	1	1	0	0
15	B	110.9	1	1	0	1	1	0
16	A	114.8	1	1	0	1	0	0
17	B	118.8	0	1	0	1	1	0
18	A	123.0	0	1	0	1	0	0
19	B	127.3	1	0	0	1	1	0
20	A	131.8	1	0	0	1	0	0
21	B	136.5	0	0	0	1	1	0
22	A	141.3	0	0	0	1	0	0
23	B	146.2	1	1	1	0	1	0
24	A	151.4	1	1	1	0	0	0
25	B	156.7	0	1	1	0	1	0
26	A	162.2	0	1	1	0	0	0
27	B	167.9	1	0	1	0	1	0
28	A	173.8	1	0	1	0	0	0
29	B	179.9	0	0	1	0	1	0
30	A	186.2	0	0	1	0	0	0
31	B	192.8	1	1	0	0	1	0
32	A	203.5	1	1	0	0	0	0
33	B	210.7	0	1	0	0	1	0
34	A	218.1	0	1	0	0	0	0
35	B	225.7	1	0	0	0	1	0
36	A	233.6	1	0	0	0	0	0
37	B	241.8	0	0	0	0	1	0
38	A	250.3	0	0	0	0	0	0

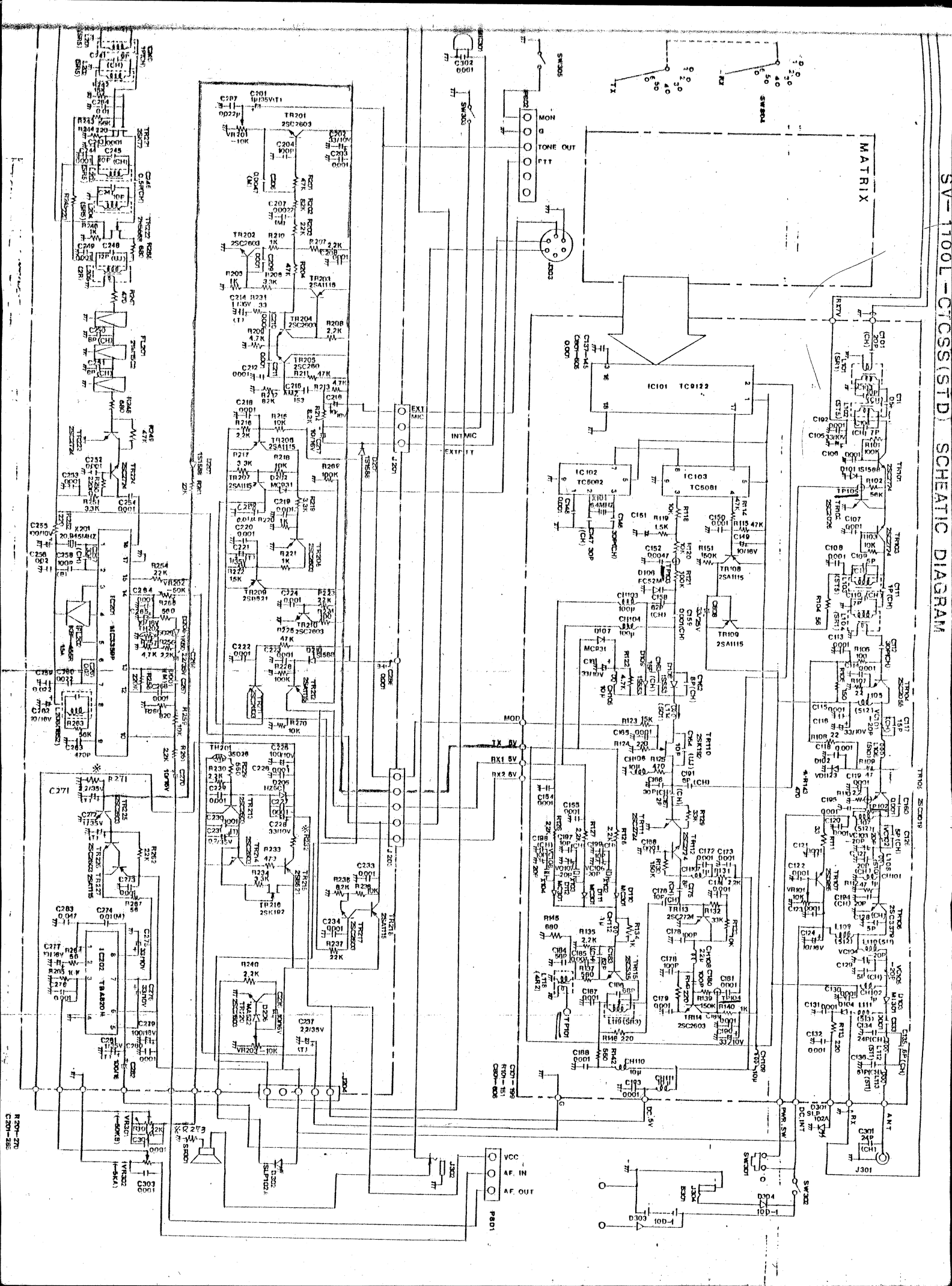


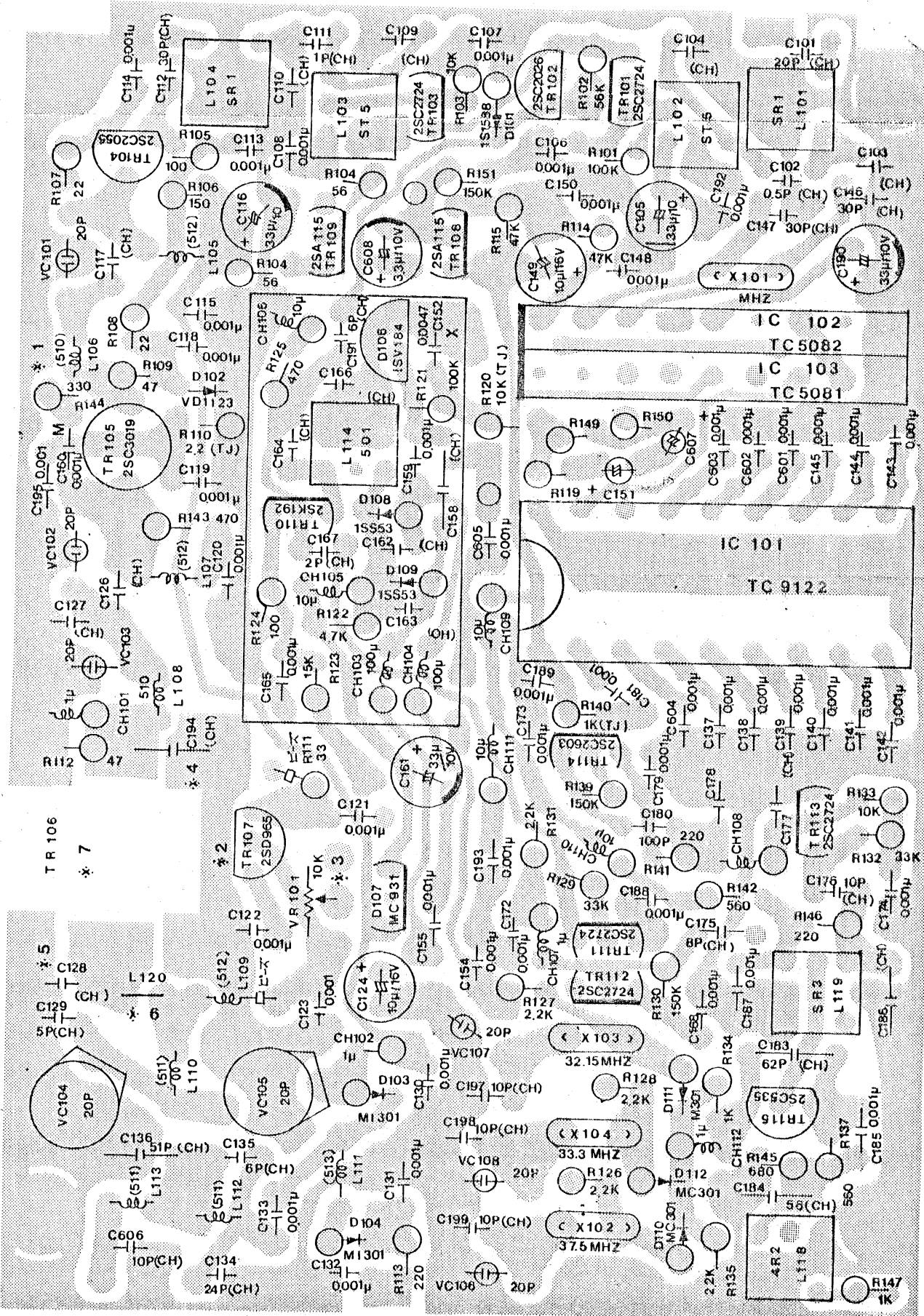
FREQ BAND	Rx 1	Tx
135-140	24.75	30.10
140-145	26.0	31.35
145-150	27.25	32.6
150-155	28.5	33.85
155-160	29.75	35.1
160-165	31.0	36.35
165-170	32.25	37.6
170-175	33.5	38.85

SV-1100L-6 BLOCK DIAGRAM (STD.CTSS)

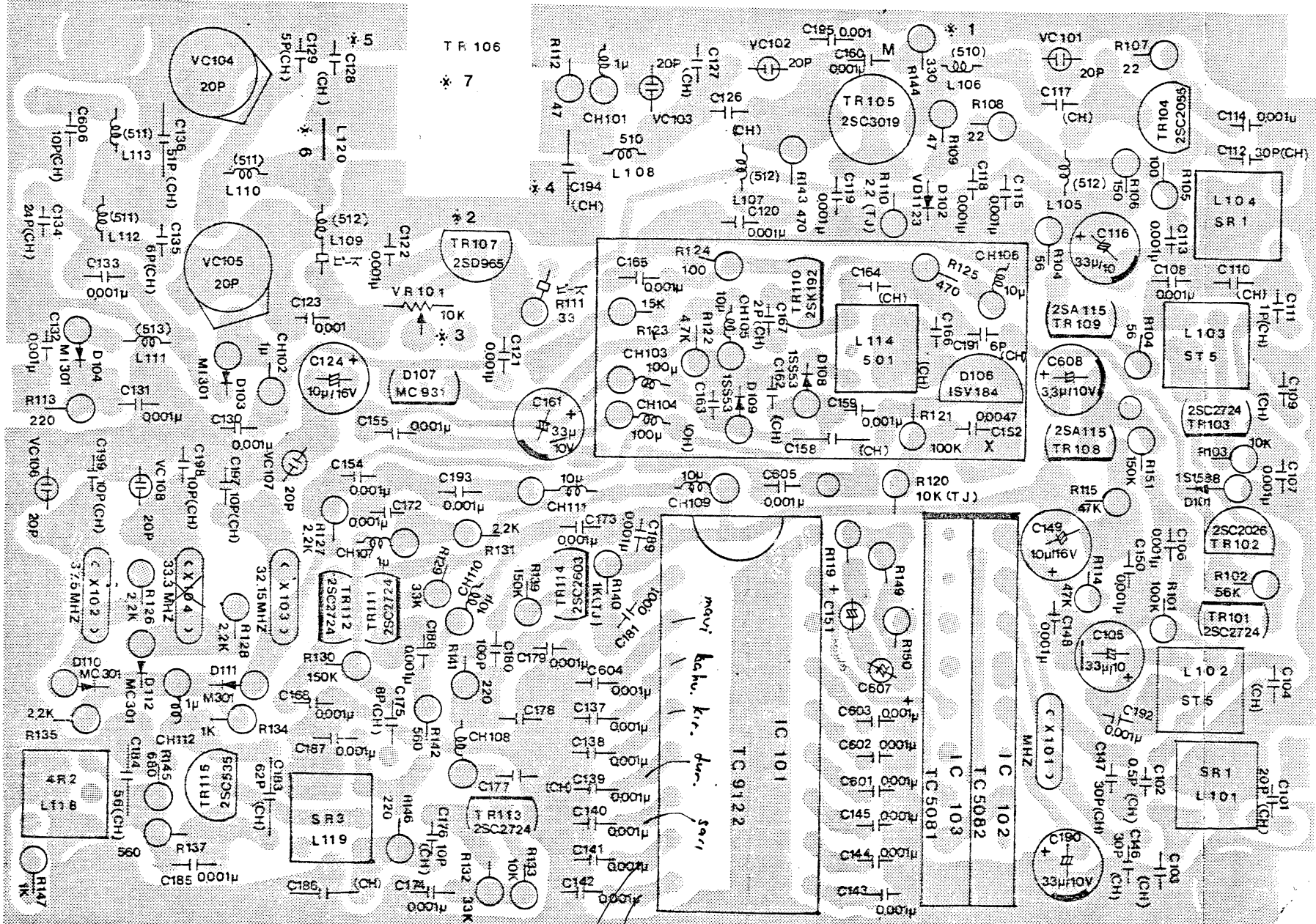
TA2EI





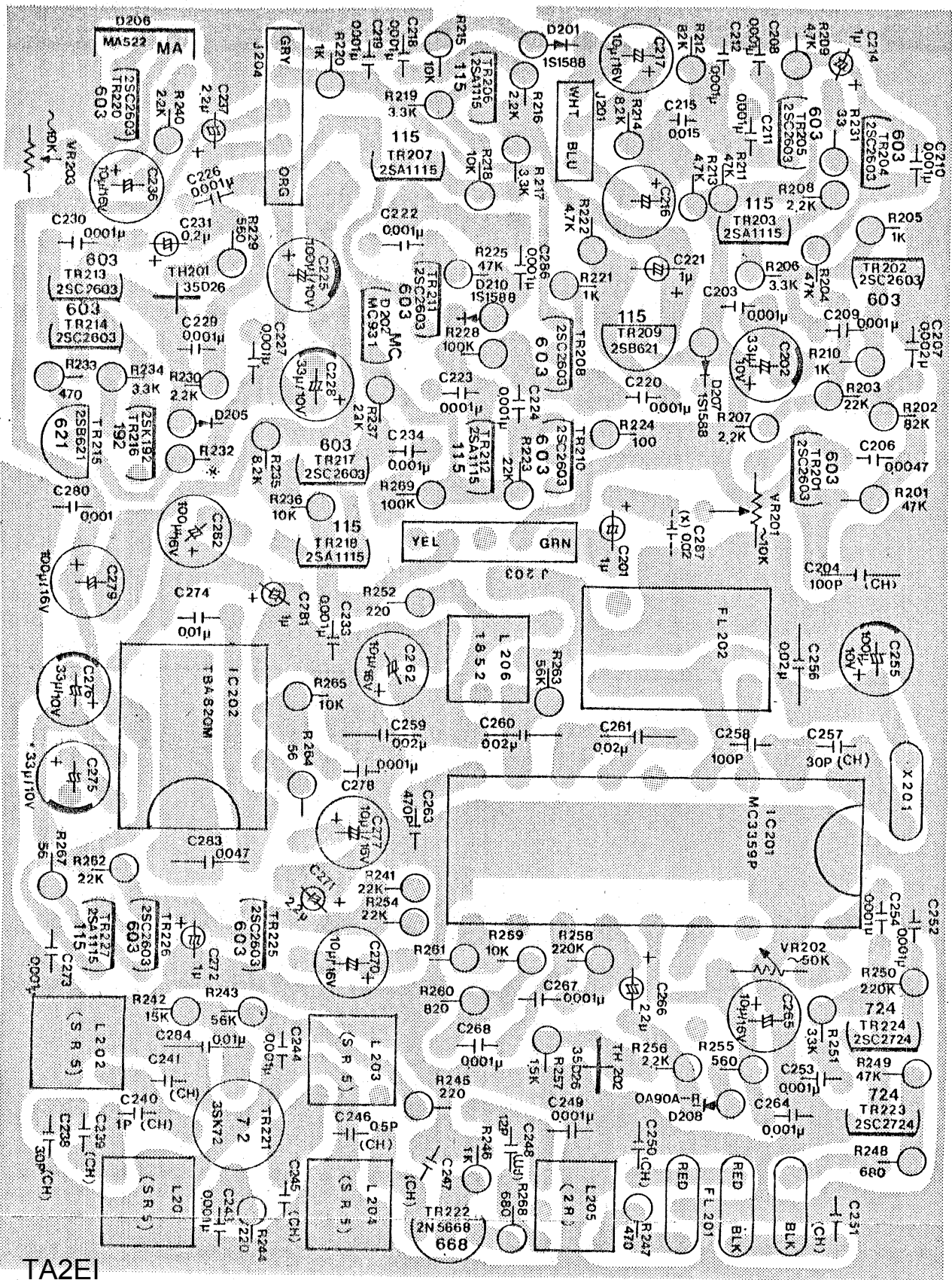


TA2E1

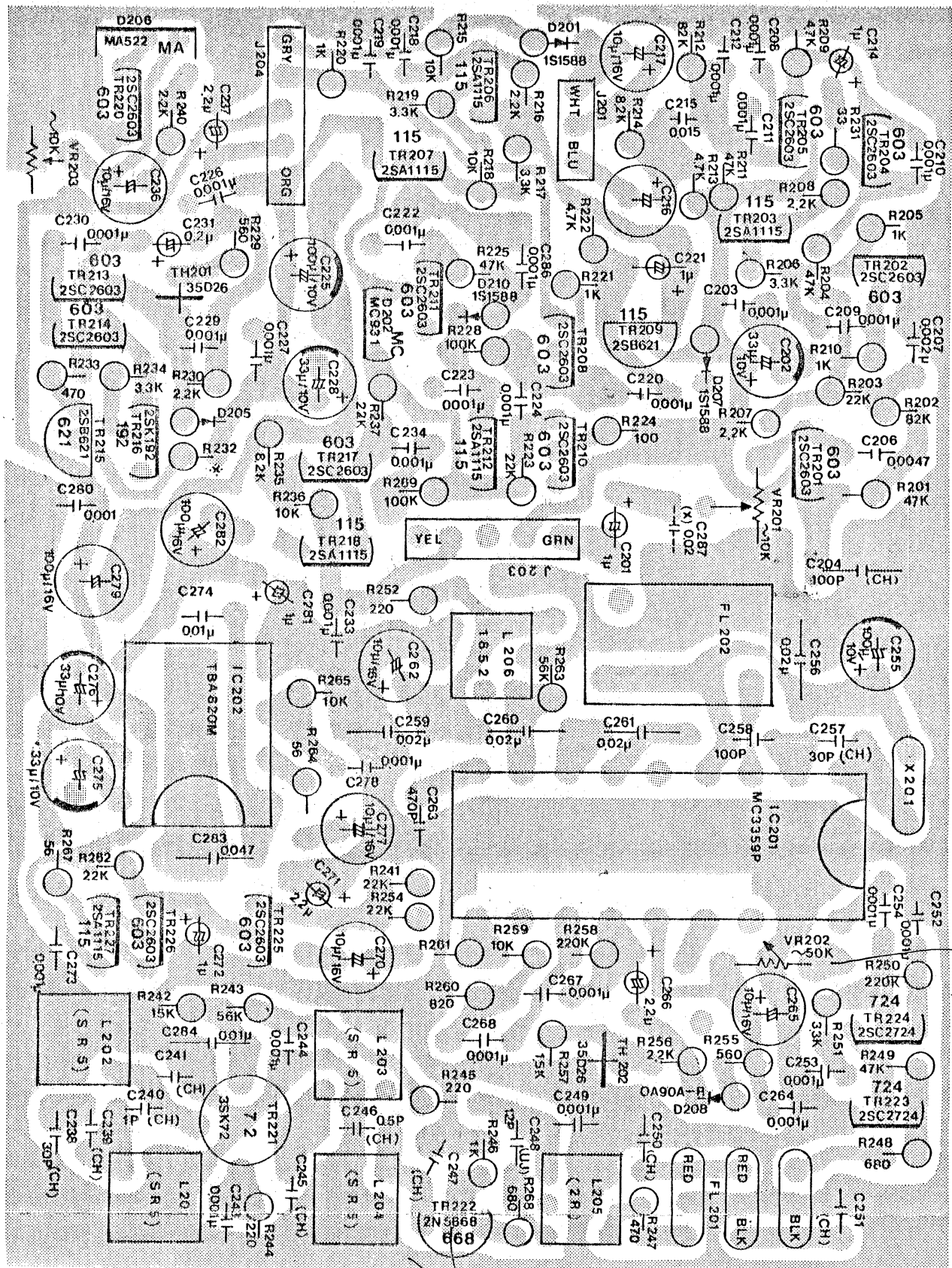


TA2E1

navi ka hu. kr. dur. sari
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 year

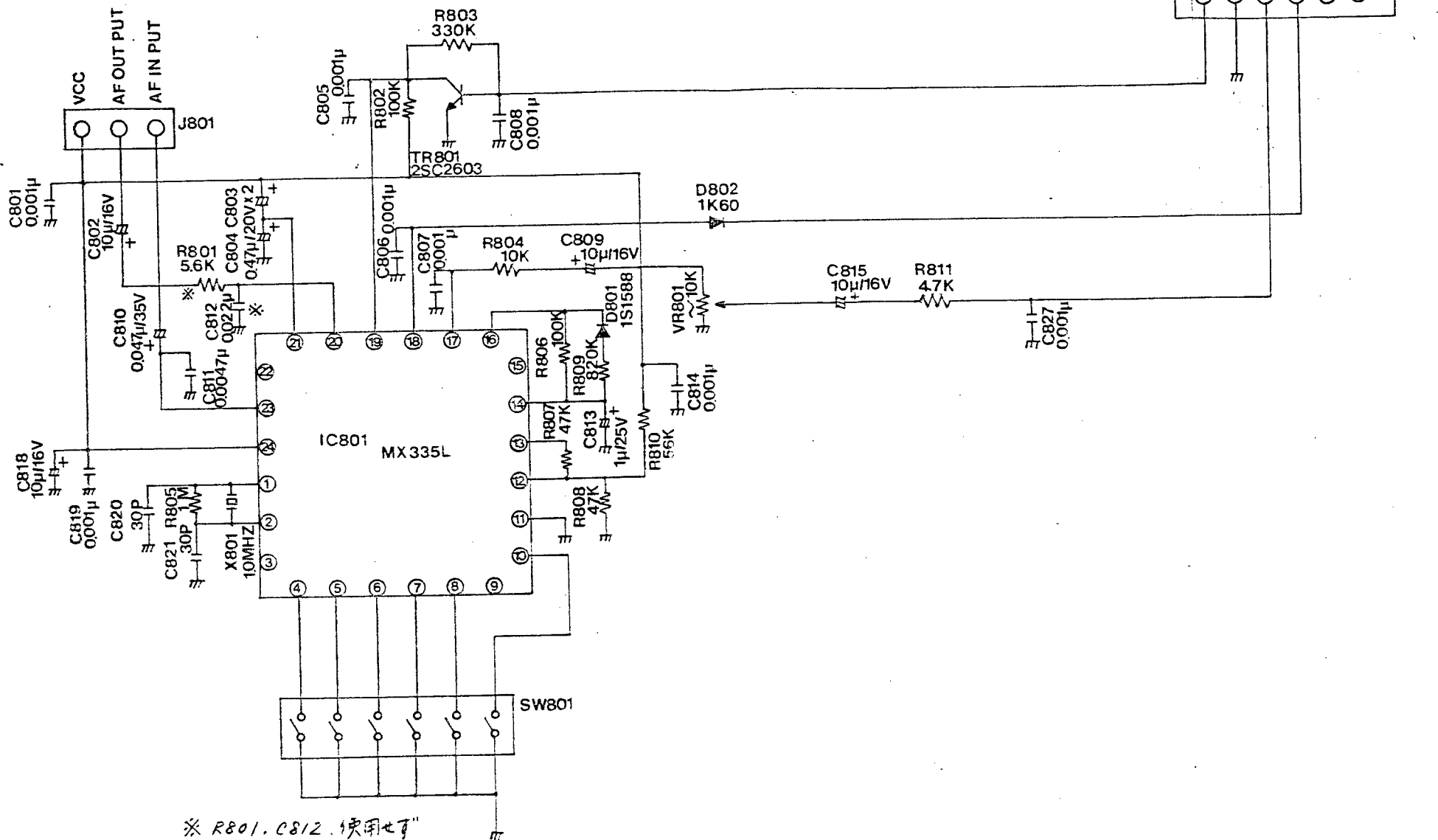


TA2EI



TA2EI

SV-1100L
 (STD.CTCS
 PARTS LAV



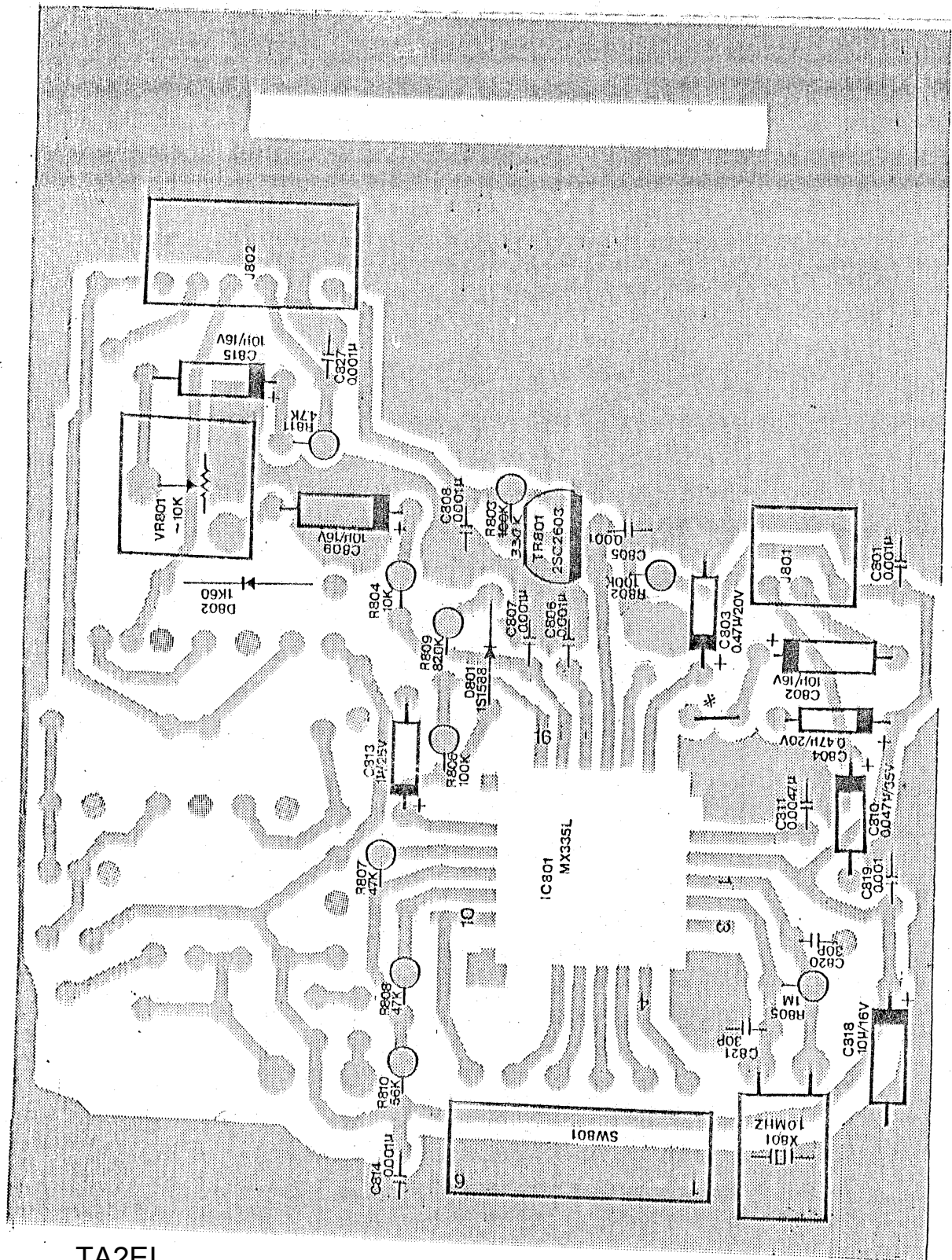
* R801, C812. 使用せず

材料	数量
MATERIAL	Q'TY

承認 APPROVED	60.8.14 J. Maki	三角法 THIRD ANGLE PROJECTION	名稱 TITLE	STD. CTCSS SCHEMATIC DIAGRAM
檢閱 CHECKED		尺 度 SCALE		
製 圖 DRAWN	60.8.14 田 口	重 量 WEIGHT	圖 番 DWG. NO.	SV-1100-718

備 考
REMARKS

TA2EI



REV	12	100.0.1.1	THIRD ANGLE PROJECTION
APPROVED	<i>J. M. [Signature]</i>		
CHECKED			SCALE
DRAWN	7853.2		WEIGHT
	<i>K. MISHRA</i>		

