

## 6.2 T856 Transmitter PCB

This section contains the following information.

IPN	Section	Page
220-01397-01	Parts List	6.2.3
	Mechanical & Miscellaneous Parts	6.2.10
	Mechanical Assembly	6.2.11
	Grid Reference Index	6.2.13
	PCB Layout - Top Side	6.2.17
	PCB Layout - Bottom Side	6.2.18
	Test Points & Options Connections - Top Side	6.2.19
	Test Points & Options Connections - Bottom Side	6.2.20
	Transmitter Overview Diagram	6.2.21
	Audio Processor Circuit Diagram	6.2.22
	Exciter Circuit Diagram	6.2.23
	PA Circuit Diagram	6.2.24
	VCO Section Circuit Diagram	6.2.25
	Regulators Circuit Diagram	6.2.26
	Synthesiser Circuit Diagram	6.2.27
Microcontroller Circuit Diagram	6.2.28	
Harmonic Filter Circuit Diagram	6.2.29	



## T856 Parts List (IPN 220-01397-01)

### How To Use This Parts List

The components listed in this parts list are divided into two main types: those with a circuit reference (e.g. C2, D1, R121, etc.) and those without (miscellaneous and mechanical).

Those with a circuit reference are grouped in alphabetical order and then in numerical order within each group. Each component entry comprises three or four columns: the circuit reference, variant (if applicable), IPN and description. A number in the variant column indicates that this is a variant component which is fitted only to the product type listed. Static sensitive devices are indicated by an (S) at the start of the description column.

The miscellaneous and mechanical section lists the variant and common parts in IPN order. Where possible, a number in the legend column indicates their position in the mechanical assembly drawing.

The Parts List Amendments box below lists component changes that took place after the parts list and diagrams in this section were compiled. These changes (e.g. value changes, added/deleted components, etc.) are listed by circuit reference in alphanumeric order and supersede the information given in the parts list or diagrams. Components without circuit references are listed in IPN order.

### Parts List Amendments

Capacitor IPN Change	The IPN of the 8p2 chip capacitors used in the T856 has been changed from 015-21820-01 to 015-21820-02. The components themselves have not changed (780047/48/49/50).	
#C930, #C960	400-440MHz (-10, -13 & -15): deleted to improve output power (710296 and 710359).	
D111	Changed from MR750 (IPN 001-00011-60) to MR2520L (IPN 001-00012-90) to provide overvoltage transient suppression (750087/88/89/90/91/92).	
=IC700	-16, -26, -36: changed to -30/+70°C VCTCXO (IPN 539-00010-45) to meet FCC Type Approval (710893).	
IC710	Changed from 74HCV04 (IPN 002-74910-04) to 74HC04 (IPN 002-74900-04) to increase the gain of the TCXO buffer (710312).	
L345	-10 type only: rewired and placed on its side to improve output power (710296).	
L355	400-440MHz (-10, -13 & -15): changed from 1.5T/2.5mm coil (052-08125-15) to 1.5T/3.5mm coil (052-08135-15) to regulate output power; circuit reference also changed to #L355 (710284).	
Q550	Changed from BCW60 (IPN 000-10008-48) to BC817-25 (IPN 000-10008-17) as BCW60 is underrated (711093).	
R713	Changed from 22Ω (IPN 036-12220-00) to 0Ω (IPN 036-10000-00) to improve hum & noise performance (710837/839/840/841).	
New Product Types	The following component changes apply to the T856-16-0000/26-0000/36-0000 Product Types:	
	&C269	changed to 4p7 (IPN 015-21470-01)
	C271	changed to 56p (IPN 015-22560-01) - circuit reference changed to &C271
	C289	changed to 68n (IPN 015-25680-08) - circuit reference changed to &C289
	R290	changed to 680Ω (IPN 036-13680-00) - circuit reference changed to &R290.
070-02001-00	Red front panel LED: replaced by 008-00014-79 (710928).	
070-02002-00	Green front panel LED: replaced by 008-00014-80 (710928).	
303-11169-03	T800 chassis: replaced by 303-11169-04	} New chassis and lid tooling introduced, incorporating mechanical improvements and better RF shielding (750027, 750028 & 750029). Note that the new lids should be used only with the new chassis.
312-01052-01	T800 top lid: replaced by 312-01052-02	
312-01053-01	T800 bottom lid: replaced by 312-01053-02	
319-01173-00	D-range shield: deleted	} no longer required with new chassis and lids (710427).
319-01174-00	N-type connector shield: deleted	
349-00020-36	The two M3x8 Torx screws which secure the module into the rack frame have been replaced by M3x8 Pozidriv screws (IPN 349-00020-55) (750101/2/3/5/6).	
Chassis Screws	The Pozidriv screws securing the rear panel connectors and cover plate were replaced by Torx head screws when the shields were deleted.	

Ref	Var	IPN	Description	Ref	Var	IPN	Description
<p><b>Note:</b> %D205 and %D210 are optional level limiting diodes for special applications.</p> <p>=R705 (47 ohm) and =SK710 are fitted in place of =IC700 when an external frequency reference is used. These two components are supplied with the auxiliary D-range kits (T800-06-0000 &amp; T800-06-0001).</p>				C328		015-06100-08	CAP CER 1206 100N 10% X7R 50V
				C329		020-07470-04	CAP ELE RA 4M7 25V 20%8X13 SOL
				C330A		015-06100-08	CAP CER 1206 100N 10% X7R 50V
				C330B		016-08100-01	CAP EL 6X4 10M 20% 16V
				C331		015-24100-08	CAP CER 0805 1N 10% X7R 50V
				C332		015-24100-08	CAP CER 0805 1N 10% X7R 50V
				C333		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C334		015-24100-08	CAP CER 0805 1N 10% X7R 50V
				C335		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C336		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
				C337		015-24470-08	CAP CER 0805 4N7 10% X7R 50V
				C338		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C339		015-06100-08	CAP CER 1206 100N 10% X7R 50V
				C340		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C341		015-24100-08	CAP CER 0805 1N 10% X7R 50V
				C342		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C343		015-24100-08	CAP CER 0805 1N 10% X7R 50V
				C344		015-25470-08	CAP CER 0805 47N 10% X7R 50V
				C345		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C346		015-24100-08	CAP CER 0805 1N 10% X7R 50V
				C347		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C348		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C349		015-06100-08	CAP CER 1206 100N 10% X7R 50V
				C350A		015-25100-08	CAP CER 0805 10N 10% X7R 50V
				C350B		016-08100-01	CAP EL 6X4 10M 20% 16V
				C351		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C352		015-24100-08	CAP CER 0805 1N 10% X7R 50V
				C353		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C354		015-22220-01	CAP CER 0805 22P 5% NPO 50V
				C355		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C356		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C358		015-22120-01	CAP CER 0805 12P 5% NPO 50V
				C360		015-22330-01	CAP CER 0805 33P 5% NPO 50V
				C362		015-22100-01	CAP CER 0805 10P+/-1/2P NPO 50V
				C364		015-24100-08	CAP CER 0805 1N 10% X7R 50V
				C366		015-06100-08	CAP CER 1206 100N 10% X7R 50V
				C368		015-22120-01	CAP CER 0805 12P 5% NPO 50V
				C370A		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C370B		015-06100-08	CAP CER 1206 100N 10% X7R 50V
				C370C		014-07470-00	CAP TANT CHIP 4U7 3.5 X 2.8MM
				C371		015-25100-08	CAP CER 0805 10N 10% X7R 50V
				C372		014-07470-00	CAP TANT CHIP 4U7 3.5 X 2.8MM
				C373		015-06100-08	CAP CER 1206 100N 10% X7R 50V
				C380		015-22330-01	CAP CER 0805 33P 5% NPO 50V
				#C382	10	015-21390-01	CAP CER 0805 3P9+/-1/4P NPO 50V
				#C382	13	015-21390-01	CAP CER 0805 3P9+/-1/4P NPO 50V
				#C382	15	015-21390-01	CAP CER 0805 3P9+/-1/4P NPO 50V
				#C382	20	015-21220-01	CAP CER 0805 2P2+/-1/4P NPO 50V
				#C382	23	015-21220-01	CAP CER 0805 2P2+/-1/4P NPO 50V
				#C382	25	015-21220-01	CAP CER 0805 2P2+/-1/4P NPO 50V
				#C382	30	015-21220-01	CAP CER 0805 2P2+/-1/4P NPO 50V
				#C382	35	015-21220-01	CAP CER 0805 2P2+/-1/4P NPO 50V
				C383		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				#C384	10	015-22120-01	CAP CER 0805 12P 5% NPO 50V
				#C384	13	015-22120-01	CAP CER 0805 12P 5% NPO 50V
				#C384	15	015-22120-01	CAP CER 0805 12P 5% NPO 50V
				#C384	20	015-21680-01	CAP CER 0805 6P8+/-1/4P NPO 50V
				#C384	23	015-21680-01	CAP CER 0805 6P8+/-1/4P NPO 50V
				#C384	25	015-21680-01	CAP CER 0805 6P8+/-1/4P NPO 50V
				#C384	30	015-21560-01	CAP CER 0805 5P6+/-1/4P NPO 50V
				#C384	35	015-21560-01	CAP CER 0805 5P6+/-1/4P NPO 50V
				C385		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C405		015-22120-01	CAP CER 0805 12P 5% NPO 50V
				#C410	10	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C410	13	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C410	15	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C410	20	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C410	23	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C410	25	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C410	30	029-02330-02	CAP MICA 5 CASE 33P 5%
				#C410	35	029-02330-02	CAP MICA 5 CASE 33P 5%
				C415		029-02330-02	CAP MICA 5 CASE 33P 5%
				C419		015-06100-08	CAP CER 1206 100N 10% X7R 50V
				C420		015-23150-01	CAP CER 0805 150P 5% NPO 50V
				C421		015-06100-08	CAP CER 1206 100N 10% X7R 50V
				C430		015-24100-08	CAP CER 0805 1N 10% X7R 50V
				C435		016-08470-01	CAP EL SMD 6*4 47U 16V
				C438		029-02680-02	CAP MICA 5 CASE 68P 5%
				#C440	10	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C440	13	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C440	15	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C440	20	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C440	23	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C440	25	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C440	30	029-02330-02	CAP MICA 5 CASE 33P 5%
				#C440	35	029-02330-02	CAP MICA 5 CASE 33P 5%
				#C445	10	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C445	13	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C445	15	029-02390-02	CAP MICA 5 CASE 39P 5%
				#C445	20	029-02330-02	CAP MICA 5 CASE 33P 5%
				#C445	23	029-02330-02	CAP MICA 5 CASE 33P 5%
				#C445	25	029-02330-02	CAP MICA 5 CASE 33P 5%
				#C445	30	029-02330-02	CAP MICA 5 CASE 33P 5%
				#C445	35	029-02330-02	CAP MICA 5 CASE 33P 5%
				C450		015-03100-02	CAP CER HIQ1210 100P 5%NPO200V
				C455		020-07470-02	CAP ELE RAD 4M7 50V 5X11MM
				#C460	10	029-02220-02	CAP MICA 5 CASE 22P 5%
				#C460	13	029-02220-02	CAP MICA 5 CASE 22P 5%











Ref	Var	IPN	Description	Ref	Var	IPN	Description
RV805		042-05200-05	RES PRESET SMD 20K CER 4MM SQ				
SK205		240-02020-05	SKT STEREO PHONE JACK PCB MTG				
SK310		240-02100-44	SKT COAX MINI JACK PCB MT ANG.				
SK410		240-02100-44	SKT COAX MINI JACK PCB MT ANG.				
SK501		240-04021-77	SKT JACK 1.3 PCB MT 64W				
SK502		240-04021-77	SKT JACK 1.3 PCB MT 64W				
SK503		240-04021-77	SKT JACK 1.3 PCB MT 64W				
SK504		240-04021-77	SKT JACK 1.3 PCB MT 64W				
SK505		240-04021-77	SKT JACK 1.3 PCB MT 64W				
SK513		240-04021-77	SKT JACK 1.3 PCB MT 64W				
SK522		240-04021-77	SKT JACK 1.3 PCB MT 64W				
SK531		240-04021-77	SKT JACK 1.3 PCB MT 64W				
SK532		240-04021-77	SKT JACK 1.3 PCB MT 64W				
SK533		240-04021-77	SKT JACK 1.3 PCB MT 64W				
SK534		240-04021-77	SKT JACK 1.3 PCB MT 64W				
SK535		240-04021-77	SKT JACK 1.3 PCB MT 64W				
SK805		240-10000-07	CONN SMD SKT 16W 2R M-MATCH				
SK810		240-04020-42	SKT 44 PIN SMD PLCC				
SW230		232-00010-26	SWITCH PUSH SPDT R-ANG PCB MTG				
T210		053-00010-17	XFMR T4030 LINE MATCH POTCORE				
T610		050-00016-50	COIL TAIT NO 650 455KHZ				

## T856 Mechanical &amp; Miscellaneous Parts (220-01397-01)

IPN	Legend	Description	IPN	Legend	Description
070-01001-00	14/37	D-RANGE 15 WAY COMPL T800	356-00010-05	34	TAG SOLDER 4MM LONG M6144/4.2
070-02001-00		LED RED COMPL T800 RX/TX/EX	362-00010-23	35	GASKET SIL TO-220 CLIP MTG.
070-02002-00		LED GREEN COMPL T800 RX/TX/EX	362-00010-33	36	GROMMET LED MTG 3MM
200-00010-05		WIRE T/C 0.5 For ferrite beads.	365-00011-53		LABEL 104X37MM
206-00010-11		COAX 50 OHM RG316-U PTFE Connects SK310 to SK410.	365-00100-09		LABEL WHITE VINYL 15X11MM S/A
220-01145-02	1	PCB T855/856/857 VCO	365-00100-20		LABEL WHITE S/A 28X11MM
220-01397-01	2	PCB T856 SERIES II	365-01541-00		LABEL TX/RX/EX TYPE APR/SER NO
232-00020-26	3	BUTTON 232-00010-26 SWITCH	399-00010-51		BAG PLASTIC 75X100MM
240-00100-43		PLG COAX MINI PIN CRIMP 1.5D For coax connecting SK310 to SK410.	410-01081-01		CRT T800 SERIES II
240-02100-06	4	SKT COAX N TYPE PNL MTG OP-TER	410-01082-01		CRTN 10 T800 KIWI 423X410X360
240-04020-62		SKT 2 W RECEP SHORTING LINK PL205/210/215/220.			
303-11169-03	5	CHASSIS PAINTED T800 SER II			
303-23118-00	6	COVER A3M2247 D RANGE			
303-50074-00	7	CLIP A3M2246 SPRING CLAMP			
303-50078-00	8	CLIP A4M2630 SPR. CABLE CLAMP			
308-01007-01	9	HANDLE BASE STATION SERIES II			
308-13090-00	10	HSINK A4M2361 BRKT COPPER T856			
312-01052-01	11	LID TOP T800 SER II PTND			
312-01053-01	12	LID BOTTOM T800 SER II PNTD			
316-06621-00	13	PNL FRT TX T800 SERIES II			
319-01173-00	15	SHIELD A3M2880 D-RANGE T856			
319-01174-00	16	SHIELD A4M2881 N-CONN T856			
345-00040-08	17	SCRW M3X12MM P/POZ ST BZ			
345-00040-10	18	SCRW M3X6MM P/POZ ST BZ			
349-00020-09	19	SCRW T/T 4-40X3/8 IN P/POZ BLK			
349-00020-31	20	SCRW T/T M3X10MM P/POZ BZ			
349-00020-34	21	SCRW M3X12 P/POZ T/T BZ			
349-00020-36	22	LIM)SCREW TT M3X8m PANTORX BLK			
349-00020-43	23	SCRW T/T M4X12MM P/POZ BZ			
349-00020-45	24	SCRW T/T M4X20MM P/POZ BZ			
350-00016-42	25	SPACER 5MM HI 8MM ST 2.5MM HO			
352-00010-08	26	NUT M3 COLD FORM HEX ST BZ			
352-00010-29	27	NUT M4 NYLOC HEX			
352-00010-35	28	NUT 8-32 UNC HEX XSTR MTG			
353-00010-10	29	WSHR M3 FLAT 7MMX0.6MM ST BZ			
353-00010-12	30	WSHR M3 SPRING BZ OR Z/C			
353-00010-13	31	WSHR M3 S/PROOF INT BZ			
353-00010-24	32	WSHR M4 FLAT ST BZ A4M1957			
356-00010-01	33	TAG SOLDER 3MM SHORT M6132/3.2			

**replace A4 pages C6.2.11/C6.2.12 with A3 pages C6.2.11/C6.2.12**

**replace A4 pages C6.2.11/C6.2.12 with A3 pages C6.2.11/C6.2.12**

## T856 Grid Reference Index (IPN 220-01397-01)

### How To Use This Grid Reference Index

The first digit in the PCB layout reference is a "1" or "2", indicating the top or bottom side layout respectively, and the last two characters give the location of the component on that diagram.

The first digit in the circuit diagram reference is the sheet number, and the last two characters give the location of the component on that sheet.

Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit
C201	1:C1	2-B8	C305	1:F7	3-E5	C372	1:F9	3-P7	C628	1:M6	6-R8
C202	1:C1	2-C8	C306	1:F7	3-F7	C373	1:F9	3-P7	C630	1:M5	6-K4
C204	1:A2	2-E8	C307	1:F7	3-F7	C380	1:E6	3-P1	C631A	1:M5	6-M5
C205	1:A2	2-E8	C308	1:F8	3-G7	#C382	1:E6	3-Q1	C634	1:N5	6-M4
C207	1:C7	2-B6	C309	1:F8	3-J7	C383	1:F3	3-B2	C636	1:M5	6-M4
C209	1:C6	2-D6	C310	1:F8	3-K7	#C384	1:E6	3-R2	C638	1:M6	6-P5
C210	1:C7	2-K0	C311	1:F8	3-G6	C385	1:F3	3-D0	C640	1:M5	6-R5
C211	1:B7	2-F8	C312	1:F8	3-G5	C405	2:H8	4-D4	C655	1:M4	6-C1
C213	1:B6	2-G8	C313	1:E9	3-C8	#C410	2:J8	4-E3	C660	1:L5	6-K1
C215	1:B6	2-G8	C314	1:F8	3-G5	C415	2:J7	4-F3	C665	1:L5	6-K1
C217	1:C6	2-H8	C315	1:E8	3-C7	C419	1:G8	4-C6	C670	1:L6	6-L1
C219	1:C6	2-H7	C316	1:F8	3-H6	C420	1:G8	4-D6	C673	1:L5	6-P2
C221	1:D5	2-G6	C317	1:F8	3-H5	C421	1:G8	4-D6	C677	1:L6	6-P1
C223	1:C5	2-J6	C318	1:F8	3-J5	C430	1:J7	4-H6	C681	1:M5	6-R3
C225	1:C3	2-K7	C320	1:F5	3-P5	C435	1:M7	4-J6	C684	1:M6	6-R3
C227	1:B4	2-K7	C324	1:F6	3-Q5	C438	2:K8	4-G4	C687	1:L6	6-Q1
C229	1:B3	2-L7	C326	1:F6	3-Q4	#C440	2:K8	4-H4	C690	1:L6	6-R1
C230	1:B4	2-J0	C327	1:F7	3-C3	#C445	2:K7	4-J4	C693	1:L6	6-R1
C232	1:A4	2-M7	C328	1:F6	3-R4	C450	1:L7	4-K5	C700	1:K4	7-A8
C233	1:A5	2-N7	C329	1:F6	3-R4	C455	1:M7	4-L5	C701	1:J3	7-B8
C235	1:B5	2-K5	C330A	1:E8	3-G8	#C460	2:L7	4-K4	C703	1:J3	7-B7
C237	1:C4	2-K5	C330B	1:E8	3-G8	#C465	2:L8	4-L4	C705	1:J3	7-B7
C239	1:C4	2-L4	C331	1:F3	3-B2	C470	2:L8	4-M4	C706	1:J2	7-B5
C241	1:B4	2-M6	C332	1:F8	3-B3	#C480	2:M8	4-N4	%C707	1:K4	7-C8
C242	1:B4	2-L6	C333	1:F3	3-B0	C481	1:J8	4-P7	C708	1:J2	7-C9
C243	1:B4	2-P6	C334	1:F7	3-C3	C485	1:M9	4-M5	C709	1:K4	7-D9
C245	1:C5	2-A4	C335	1:F7	3-F5	C490	1:M9	4-N5	C710	1:J3	7-E8
C247	1:D4	2-B4	C336	1:F7	3-F5	C493	2:M8	4-N4	C712	1:H2	7-E7
C249	1:D4	2-C4	C337	1:E7	3-F3	C496	1:N7	4-P3	%C713	1:H2	7-E6
C251	1:C3	2-E4	C338	1:E7	3-F2	C499	1:N7	4-Q3	C720	1:J3	7-F8
C253	1:D3	2-E3	C339	1:E7	3-F3	C501	1:K4	5-B6	C722	1:J4	7-G8
C255	1:D3	2-D2	C340	1:E7	3-H4	C502	1:K4	5-C6	C724	1:J4	7-H6
C257	1:D3	2-F2	C341	1:F3	3-G3	C503	1:K6	5-L9	C725	1:J4	7-J6
C259	1:C6	2-J2	C342	1:F3	3-H3	C504	1:K6	5-M6	C726	1:K4	7-J6
C260	1:D8	2-H0	C343	1:F3	3-J3	C505	1:K6	5-N6	C727	1:J3	7-J8
C261	1:C6	2-K2	C344	1:F3	3-J4	C507	1:K6	5-B5	C729	1:J3	7-M8
C263	1:D6	2-L3	C345	1:F3	3-K4	C508	1:K6	5-C0	%C733	1:J3	7-M5
C265	1:D6	2-N4	C346	1:F3	3-K4	C509	1:K6	5-D0	C735	1:J2	7-A1
C267	1:C8	2-P3	C347	1:F3	3-L4	C510	1:J5	5-D1	C736	1:J2	7-B1
&C269	1:C8	2-P3	C348	1:F3	3-M4	C512	1:J5	5-E1	C740A	1:H2	7-B4
C271	1:C8	2-Q3	C349	1:F3	3-M4	C513	1:J5	5-H1	C740B	1:H2	7-B3
C273	1:C8	2-Q4	C350A	1:F7	3-J8	C514	1:J5	5-J1	C741A	1:H2	7-C4
C275	1:D3	2-E1	C350B	1:F7	3-J8	C516	1:H5	5-H4	C741B	1:G2	7-C3
C277	1:C4	2-G1	C351	1:F4	3-H1	C517	1:H5	5-H4	C742A	1:H2	7-D4
C279	1:B4	2-G1	C352	1:F4	3-J0	C519	1:H5	5-J5	C742B	1:H3	7-D3
C281	1:B5	2-J1	C353	1:F4	3-J0	C525	1:K4	5-K5	C743	1:H2	7-B1
C283	1:B5	2-K0	C354	1:F4	3-K0	C530	1:K5	5-L4	C745	1:G3	7-D1
C285	1:D7	2-L0	C355	1:F4	3-K1	C535	1:K5	5-L2	C750A	1:H4	7-Q7
C287	1:C6	2-M1	C356	1:F3	3-K2	C537	1:K5	5-N2	C750B	1:H4	7-R7
C289	1:C8	2-N1	C358	1:E4	3-K1	C605	1:L6	6-D8	C757	1:G4	7-F5
C291	1:D7	2-P1	C360	1:E4	3-L1	C610A	1:M5	6-F8	C759	1:G4	7-G4
C293	1:D7	2-Q1	C362	1:E5	3-N2	C610B	1:M5	6-G8	C761	1:G3	7-J4
%C294	1:D7	2-Q0	C364	1:E4	3-M2	C611A	1:L5	6-H8	C762	1:G3	7-J4
%C295	1:D6	2-Q0	C366	1:F4	3-N2	C611B	1:M5	6-J8	C763	1:H3	7-K4
C300	1:F8	3-B8	C368	1:E5	3-N1	C620	1:N5	6-K9	C764	1:H3	7-H2
C301	1:F9	3-B7	C370A	1:F8	3-K7	C621	1:N5	6-L9	C765	1:G3	7-J2
C302	1:E8	3-A6	C370B	1:F8	3-L7	C623	1:N6	6-N7	C766	1:G3	7-J2
C303	1:E8	3-A6	C370C	1:F8	3-L7	C625	1:M6	6-Q8	C767	1:H3	7-K3
C304	1:E8	3-C6	C371	1:F8	3-N7	C626	1:M6	6-R8	C768	1:H4	7-L4

Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit
C769	1:H4	7-M4	IC210	1:C7	2-K2	L410	1:H7	4-D4	Q220	1:B3	2-L7
C770	1:H4	7-N4	IC210	1:C7	2-L1	L415	1:G7	4-D3	Q230	1:A4	2-M8
C772	1:G4	7-M2	IC210	1:C7	2-C6	L418	2:H8	4-F4	Q240	1:B7	2-Q7
C774	1:H4	7-P2	IC220	1:D6	2-P0	L420	1:G8	4-D6	Q250	1:B7	2-R5
C776	1:H4	7-N1	IC220	1:D6	2-M3	L425	1:G7	4-C6	Q260	1:C4	2-F3
C782	1:G2	7-N1	IC220	1:D6	2-D5	L430	1:J7	4-G6	Q270	1:D2	2-D1
C784	1:G2	7-R1	IC230	1:B4	2-H0	L435	1:J7	4-F5	Q310	1:F8	3-H5
C786	1:G2	7-R1	IC230	1:B4	2-G1	L440	2:K8	4-G4	Q315	1:F8	3-J6
C788	1:G3	7-P0	IC230	1:B4	2-N6	L445	1:K7	4-G4	Q320	1:E7	3-E4
C790	1:G3	7-R0	IC230	1:B4	2-J0	L450	1:J7	4-G3	Q325	1:E7	3-E3
C792	1:G4	7-R0	IC230	1:B4	2-L5	L455	2:K8	4-J4	Q330	1:E7	3-G3
C810	1:L3	8-K8	IC240	1:D4	2-F3	L460	1:M7	4-J6	Q335	1:F3	3-J4
C812	1:L2	8-F5	IC250	1:D3	2-E1	L465	1:L7	4-J5	Q340	1:F3	3-L4
C813	1:K2	8-H5	IC260	1:D8	2-N0	L470	2:L8	4-K4	Q345	1:F3	3-M3
C822	1:M2	8-B2	IC260	1:D8	2-H0	L475	2:L8	4-L4	Q350	1:E4	3-M1
C823	1:M3	8-C2	IC260	1:D8	2-Q2	L480	1:M9	4-N6	Q355	2:E6	3-Q2
C824	1:M2	8-C1	IC260	1:D8	2-Q3	L481	1:J9	4-Q7	Q410	2:J8	4-F4
C826	1:N3	8-C0	IC260	1:D8	2-N3	L485	1:N7	4-Q4	Q420	2:L8	4-J4
C827	1:N3	8-D0	IC330	1:E8	3-D8	L520	1:K6	5-C1	Q505	1:J6	5-K8
C828	1:N3	8-E0	IC330	1:E8	3-H8	L610	1:N5	6-L9	Q510	1:J5	5-E1
C830	1:N3	8-R1	IC330	1:E8	3-D7	L620	1:N6	6-L9	Q520	1:H5	5-J4
C838	1:N4	8-F0	IC350	1:F7	3-K8	L750	1:G3	7-Q0	Q530	1:K5	5-H1
C841	1:N2	8-K2	IC350	1:F7	3-C4	#L910	1:P8	9-C8	Q540	1:K5	5-L3
C844	1:M2	8-L2	IC350	1:F7	3-F6	L920	1:P8	9-E8	Q550	1:K5	5-L4
#C900	2:N8	9-C6	IC370	1:F9	3-M6	#L930	1:P7	9-G8	Q610	1:L6	6-E8
C910	2:P8	9-D6	IC610	1:M5	6-G8	#L940	1:P6	9-J8	Q620	1:N6	6-P8
#C920	2:P8	9-E6	IC630	1:N5	6-K5				Q630	1:M6	6-P5
#C930	2:P8	9-E7	IC640	1:M5	6-F1	P100	1:Q6	1-R8	Q660	1:L5	6-N1
C940	2:P7	9-F6	IC640	1:M5	6-Q5	P150	1:P2	1-Q4	Q670	1:L6	6-Q2
#C950	2:P7	9-G6	IC640	1:M5	6-N5	P160	1:P2	1-Q4	Q710	1:J3	7-K8
#C960	2:P7	9-G7	IC650	1:L5	6-F4	P170	1:P2	1-Q3	Q720	1:J3	7-K8
C970	2:P7	9-H6	=IC700	1:K3	7-A8	P204	1:D1	2-A8	Q730	1:H3	7-N8
#C980	2:P6	9-J6	IC710	1:J2	7-E8	P208	1:D1	2-A8	Q740	1:H3	7-N8
#C990	2:P6	9-K6	IC710	1:J2	7-C6	P215	1:D4	2-A2	Q750	1:G4	7-F3
#CV475	1:M8	4-M4	IC710	1:J2	7-G0	P217	1:D4	2-A2	Q760	1:H3	7-H3
			IC710	1:J2	7-D6	P219	1:D2	2-A1	Q770	1:H3	7-H1
D111	1:P4	1-R1	IC710	1:J2	7-D7	P225	1:D2	2-A0	Q775	1:H3	7-K3
%D205	1:B2	2-D9	IC710	1:J2	7-D6	P230	1:C5	2-B0	Q780	1:H3	7-K3
%D210	1:B2	2-E9	IC710	1:J2	7-C6	P231	1:D8	2-B0	Q785	1:H3	7-K2
D220	1:B4	2-P7	IC720	1:J3	7-P6	P233	1:C1	2-R9	Q790	1:H4	7-L3
D220	1:B4	2-P6	IC720	1:J3	7-J0	P235	1:C1	2-R9	Q795	1:G3	7-P0
D230	1:B7	2-R5	IC720	1:J3	7-N7	P237	1:B7	2-R8	Q810	1:M2	8-E7
D240	1:D4	2-C4	IC720	1:J3	7-M7	P239	1:C7	2-R8	Q820	1:L2	8-D5
D240	1:D4	2-B2	IC720	1:J3	7-K7	P240	1:C7	2-R8	Q830	1:L2	8-D5
D250	1:D3	2-E2	IC720	1:J3	7-F8	P243	1:B7	2-R7	Q840	1:L2	8-F5
D250	1:D3	2-D3	IC720	1:J3	7-K0	P244	1:B7	2-R7	Q850	1:M2	8-G5
D260	1:C2	2-C2	IC730	1:J4	7-H8	P245	1:B8	2-R6	Q860	1:L4	8-B3
D260	1:C2	2-C2	IC730	1:J4	7-G7	P247	1:B8	2-R6			
D270	1:D2	2-C1	IC740	1:H2	7-D1	P248	1:B7	2-R6	%R150	1:P2	1-R4
D270	1:D2	2-C1	IC750	1:H4	7-M3	P249	1:C7	2-R5	R160	1:P2	1-R3
D340	1:F4	3-J1	IC750	1:H4	7-H5	P251	1:C7	2-R5	R201	1:B2	2-E9
D360	1:F4	3-J1	IC750	1:H4	7-Q7	P255	1:D4	2-R4	R202	1:C1	2-F9
D380	1:F4	3-J1	IC820	1:L4	8-N2	P257	1:C2	2-R4	R204	1:C7	2-B6
D420	1:M8	4-N5	IC830	1:N3	8-J0	P259	1:B8	2-R3	R205	1:C7	2-D6
D440	1:N7	4-P4	IC830	1:N3	8-Q1	P261	1:B8	2-R3	R206	1:B7	2-G8
D510	1:K6	5-K8	IC830	1:N3	8-J0	P263	1:B2	2-R2	R207	1:B6	2-G8
D510	1:K6	5-K9	IC830	1:N3	8-J1	P267	1:C8	2-N2	R208	1:B6	2-G8
D610	1:N6	6-L6	IC830	1:N3	8-C0	P269	1:D8	2-P2	R209	1:C6	2-H8
D610	1:N6	6-K6				P271	1:C9	2-N1	R210	1:B6	2-H7
D620	1:N4	6-B1	L302	1:F9	3-B5	P273	1:D9	2-P0	R212	1:D4	2-F6
D620	1:N4	6-B2	L303	1:F8	3-L8	P275	1:D7	2-Q0	R213	1:C4	2-G6
D630	1:M5	6-G2	L304	1:F5	3-P5	P805	1:M2	8-A7	R214	1:D4	2-G6
D630	1:M5	6-G3	L305	1:F5	3-P4	P810	1:L3	8-A5	R215	1:C4	2-H6
D635	1:M4	6-G3	L310	1:F6	3-Q5	P820	1:L4	8-M8	R216	1:C3	2-K7
D640	1:L5	6-M1	L315	1:F6	3-Q4	P825	1:L4	8-M8	R217	1:A4	2-M8
D640	1:L5	6-M2	L320	1:F4	3-K2	P830	1:L4	8-M8	R218	1:B4	2-N7
D710	1:J3	7-L8	L325	1:E4	3-K1	P835	1:L4	8-M7	R219	1:B4	2-N8
D710	1:J3	7-L8	L330	1:E4	3-L1	P840	1:L4	8-M7	R221	1:B7	2-R7
D720	1:H3	7-P8	L333	1:F3	3-H4				R223	1:B4	2-K6
D720	1:H3	7-P8	L334	1:F3	3-C0	PL100	1:P3	1-F0	R224	1:C4	2-K5
D730	1:H3	7-H1	L335	1:E4	3-M2	PL205	1:C5	2-J8	R225	1:B4	2-L5
D740	1:H3	7-J2	L340	1:E5	3-N2	PL210	1:C3	2-H4	R226	1:B4	2-L4
D810	1:M2	8-B7	L345	1:E5	3-P1	PL215	1:C4	2-K3	R227	1:B4	2-M4
			L350	1:E5	3-Q2	PL220	1:C4	2-H2	R229	1:B4	2-M7
IC210	1:C7	2-J0	L355	1:E6	3-Q2				R230	1:B4	2-M6
IC210	1:C7	2-Q0	L405	1:H8	4-C3	Q210	1:C6	2-J8	R231	1:B4	2-M6

Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit
R232	1:B4	2-M5	R329	1:F5	3-P5	R525	1:J5	5-D1	R767	1:H3	7-K2
R233	1:B4	2-M6	R330	1:E8	3-H9	R530	1:J5	5-E1	R769	1:H3	7-K3
R235	1:B4	2-P6	R333	1:F6	3-P4	R535	1:J5	5-F1	R771	1:H4	7-L3
R237	1:B7	2-Q7	R334	1:F3	3-C1	R540	1:H5	5-K4	R772	1:G4	7-M2
R238	1:B7	2-R7	R335	1:F6	3-R4	R545	1:K5	5-H0	R774	1:H4	7-M3
R239	1:B8	2-R6	R337	1:F5	3-R5	%R550	1:K5	5-K2	R775	1:H4	7-N2
R241	1:B8	2-Q6	R338	1:F9	3-B4	%R551	1:K5	5-L2	R777	1:H4	7-R2
R242	1:B7	2-Q5	R339	1:E7	3-B4	R555	1:K5	5-L3	R780	1:G2	7-P1
R244	1:C6	2-A5	R341	1:F7	3-C4	R560	1:K4	5-L5	R782	1:G3	7-P1
R245	1:D4	2-D4	R343	1:F7	3-D4	R609	1:L6	6-B8	R784	1:G3	7-P1
R247	1:D3	2-E4	R345	1:E7	3-D4	R613	1:L6	6-C8	R785	1:G3	7-Q1
R248	1:C3	2-E3	R347	1:F7	3-E3	R615	1:M5	6-F9	R786	1:G2	7-R1
R249	1:D4	2-F3	R349	1:E7	3-F3	R617	1:M5	6-J8	R787	1:G2	7-R2
R251	1:C4	2-G4	R350	1:F8	3-K9	R619	1:M6	6-L8	R790	1:G3	7-P0
R253	1:C6	2-J2	R351	1:E7	3-F2	R621	1:M6	6-L7	R791	1:G3	7-Q0
R254	1:C6	2-K3	R352	1:F3	3-B2	R625	1:N6	6-L7	R801	1:M2	8-D7
R255	1:C7	2-K2	R353	1:E7	3-G2	R629	1:M6	6-P6	R802	1:M2	8-D7
R256	1:D8	2-M3	R354	1:F3	3-C2	R633	1:M5	6-Q8	R808	1:L2	8-B4
R257	1:D8	2-N5	R355	1:E7	3-G3	R637	1:N5	6-K5	R809	1:L2	8-D5
R258	1:D8	2-N4	R357	1:E7	3-G4	R641	1:N5	6-L4	R810	1:L2	8-D6
R259	1:D5	2-P4	R359	1:E7	3-H3	R645	1:N5	6-L5	R811	1:L2	8-E6
R260	1:D8	2-N4	R360	1:F3	3-H3	R649	1:M5	6-M5	R812	1:L2	8-D5
R262	1:D8	2-N3	R361	1:F3	3-H3	R653	1:M5	6-Q4	R813	1:L2	8-D4
R263	1:C8	2-P3	R362	1:F3	3-J4	R657	1:M5	6-D1	R815	1:L2	8-F4
&R264	1:C8	2-P3	R363	1:F3	3-J4	R661	1:M5	6-E3	R816	1:L2	8-F4
&R265	1:C8	2-P3	R365	1:F3	3-J3	R665	1:M5	6-E2	R818	1:M2	8-F5
&R266	1:C8	2-P3	R367	1:F3	3-K4	R669	1:M5	6-E2	R819	1:M2	8-F5
R267	1:C8	2-R2	R368	1:F4	3-L3	R673	1:M5	6-E0	R821	1:M4	8-B3
R268	1:D2	2-C0	R369	1:F3	3-L4	R677	1:M4	6-F4	R822	1:M4	8-E3
R269	1:C2	2-C1	R370	1:F8	3-K8	R681	1:L5	6-L2	R824	1:L4	8-L8
R270	1:C2	2-D1	R371	1:E8	3-N7	R685	1:L5	6-N2	R825	1:L4	8-L8
R271	1:C3	2-E1	R372	1:E8	3-N7	R689	1:L6	6-Q3	R826	1:L4	8-L8
R272	1:C4	2-F2	R373	1:E8	3-N7	R693	1:L6	6-Q1	R827	1:L4	8-L7
R273	1:B5	2-G2	R374	1:E9	3-N6	R696	1:M6	6-Q1	R828	1:L4	8-L7
R274	1:C4	2-G1	R376	1:F3	3-L2	R701	1:K4	7-A9	R829	1:L4	8-P9
R275	1:C4	2-H0	R381	1:F4	3-H1	R702	1:K4	7-C9	R830	1:L3	8-P9
R277	1:B5	2-J1	R382	1:F4	3-J1	R703	1:J3	7-C8	R831	1:L3	8-P9
R278	1:B5	2-J0	R383	1:F4	3-J0	=R705	1:K3	7-A7	R832	1:L3	8-P8
R279	1:B5	2-K0	R384	1:F4	3-J1	R706	1:J3	7-B6	R833	1:L3	8-P8
R280	1:B5	2-K0	R385	1:E4	3-L1	R708	1:H3	7-C7	R835	1:L3	8-P8
R282	1:D7	2-K1	R386	1:F4	3-L2	R710	1:H2	7-E7	R836	1:L3	8-P8
R283	1:D7	2-L1	R387	1:E4	3-M2	R711	1:J2	7-B6	R837	1:L3	8-P7
R284	1:D7	2-L0	R389	1:E4	3-M2	R712	1:J3	7-D9	R840	1:L3	8-P7
R285	1:C8	2-M0	R390	1:E4	3-M2	R713	1:J4	7-F8	R841	1:L3	8-P7
R286	1:C7	2-M0	R391	1:E4	3-M2	%R715	1:K4	7-H6	R842	1:L3	8-P6
R287	1:D9	2-M0	R392	1:E4	3-M2	R717	1:J4	7-H7	R843	1:L3	8-P6
R288	1:C6	2-M2	R393	1:F4	3-N2	R718	1:J4	7-H7	R845	1:M4	8-P5
R289	1:D9	2-M0	R394	1:F4	3-P2	R719	1:J4	7-J6	R846	1:K2	8-P4
R290	1:C8	2-N2	#R395	1:E5	3-N1	R720	1:J3	7-K7	R847	1:K2	8-P4
R291	1:C8	2-N1	#R396	1:E5	3-N2	R721	1:J3	7-K9	R848	1:L2	8-J4
R292	1:D8	2-Q2	#R397	1:E5	3-N1	R722	1:J3	7-K8	R849	1:M4	8-P3
R293	1:D9	2-Q2	R399	1:E6	3-P1	R723	1:J3	7-M7	R850	1:K2	8-P4
R294	1:D9	2-Q1	#R410	1:H8	4-B4	R725	1:J4	7-N7	R853	1:M4	8-N3
R295	1:D8	2-R1	#R420	1:H8	4-B3	%R726	1:J3	7-N6	R854	1:M4	8-N3
R296	1:D6	2-P0	#R430	1:H8	4-B3	R727	1:H3	7-N9	R855	1:M2	8-B0
R297	1:D7	2-P1	#R440	1:H8	4-C3	R728	1:H3	7-N8	R859	1:N2	8-C1
%R298	1:D7	2-Q0	R450	1:G7	4-D3	R742	1:H2	7-B4	R861	1:N2	8-D1
R299	1:C7	2-R0	R460	1:M8	4-P5	R743	1:H2	7-C5	R863	1:N3	8-E1
R300	1:F8	3-B9	R470	2:N8	4-P5	R744	1:G2	7-D4	R865	1:N4	8-E0
R301	1:E9	3-C8	R480	2:M8	4-N4	R746	1:H3	7-E4	R867	1:N3	8-E1
R302	1:F9	3-B7	R481	1:J9	4-P7	R747	1:H3	7-E5	R871	1:N3	8-G2
R303	1:E8	3-C7	R490	1:N7	4-P3	R748	1:J2	7-A1	R872	1:M4	8-H1
R304	1:E8	3-E9	R500	1:J4	5-C6	R749	1:J2	7-B1	R873	1:N3	8-G1
R305	1:E8	3-E7	R501	1:J6	5-J8	R750	1:H4	7-Q7	R874	1:N3	8-H0
R306	1:E8	3-B6	R502	1:J6	5-J8	R752	1:G4	7-F5	R875	1:N3	8-G0
R307	1:E8	3-B6	R503	1:J6	5-K8	R753	1:G4	7-F3	R876	1:N3	8-H0
R309	1:E8	3-C6	R504	1:K6	5-K9	R754	1:G3	7-F3	R877	1:M2	8-K2
R311	1:E7	3-D6	R505	1:K6	5-L8	R756	1:G3	7-G5	R879	1:N2	8-L3
R315	1:E7	3-D6	R510	1:K6	5-L8	R757	1:G4	7-G4			
%R317	1:F7	3-D5	R514	1:K6	5-N6	R758	1:H3	7-H4	RV210	1:B7	2-F9
R319	1:F7	3-E5	R515	1:H6	5-H5	R759	1:H3	7-H4	RV220	1:A4	2-M6
R321	1:F7	3-G5	#R517	1:G5	5-F2	R760	1:H3	7-K4	RV310	1:E7	3-D6
R323	1:F8	3-G7	#R518	1:G5	5-F3	R762	1:H3	7-K4	RV320	1:E8	3-B4
R324	1:F7	3-F5	#R519	1:G5	5-G2	R763	1:H4	7-L4	RV330	1:F7	3-E5
R325	1:F8	3-G5	R520	1:K6	5-C1	R765	1:H3	7-H2	RV805	1:N4	8-F1
R327	1:F8	3-H7	R523	1:J5	5-D1	R766	1:G3	7-J3			

<u>Device</u>	<u>PCB</u>	<u>Circuit</u>	<u>Device</u>	<u>PCB</u>	<u>Circuit</u>	<u>Device</u>	<u>PCB</u>	<u>Circuit</u>	<u>Device</u>	<u>PCB</u>	<u>Circuit</u>
SK200	1:D5	2-F0									
SK205	1:B5	2-A5									
SK310	1:E6	3-R2									
SK410	1:G8	4-A4									
SK501	1:G6	5-E7									
SK502	1:G6	5-E6									
SK503	1:G6	5-E5									
SK504	1:G5	5-E4									
SK505	1:G5	5-E3									
SK513	1:H5	5-H3									
SK522	1:H6	5-L6									
SK531	1:K6	5-P7									
SK532	1:K5	5-P6									
SK533	1:K5	5-P5									
SK534	1:K5	5-P4									
SK535	1:K5	5-P3									
=SK710	1:K3	7-A7									
SK805	1:K3	8-Q9									
SK805	1:K3	8-Q7									
SK805	1:K3	8-Q6									
SK805	1:K3	8-Q9									
SK805	1:K3	8-Q6									
SK805	1:K3	8-Q9									
SK805	1:K3	8-Q7									
SK805	1:K3	8-Q8									
SK805	1:K3	8-Q6									
SK805	1:K3	8-Q5									
SK805	1:K3	8-Q7									
SK805	1:K3	8-Q8									
SK805	1:K3	8-Q7									
SK805	1:K3	8-Q8									
SK805	1:K3	8-Q6									
SK805	1:K3	8-Q8									
SK810	1:M3	8-H5									
SL201	2:D1	2-B9									
SL202	2:D1	2-B8									
SL203	2:D2	2-B1									
SL204	2:D2	2-B1									
SL501	2:J5	5-G1									
SL810	1:M2	8-C7									
SW230	1:B8	2-B4									
T210	1:B2	2-C8									
T610	1:L5	6-N2									
TP206	1:C5	2-H7									
TP302	1:D9	3-B7									
TP305	1:E3	3-H3									
TP306	1:F9	3-B8									
TP307	1:F8	3-B9									
TP310	1:D7	3-G2									
TP312	1:F9	3-A5									
TP401	1:M7	4-G7									
TP601	1:N5	6-M9									
TP602	1:L6	6-R9									
TP603	1:L5	6-J2									
TP604	1:L5	6-M6									
TP607	1:L4	6-J9									
TP710	1:H4	7-H5									
TP715	1:J2	7-C6									