

6.3 T837 Exciter PCB

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T837 Parts List (IPN 220-01390-02)

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	4U7 16V capacitors (IPN 014-07470-00) changed to 4U7 24V capacitors (IPN 014-07470-01) to standardise components (750334)
&C269	T837-16-0000/837-26-0000: changed from 1p5 (IPN 015-21150-01) to 4p7 (IPN 015-21470-01) for FCC Type Approval requirements (710655).
C289	T837-16-0000/837-26-0000: changed from 47n (IPN 015-25470-08) to 68n (IPN 015-25680-08) for FCC Type Approval requirements (710655).
IC710	Changed from 74HCV04 (IPN 002-74910-04) to 74HC04 (IPN 002-74900-04) to increase the gain of the TCXO buffer (710312).
L360	Changed from 3.5T/4.0mm (052-08140-35) to 3.5T/3.5mm (052-08135-35).
L365	Changed from 1.5T/3.0 (IPN 052-08130-15) to 1.5T/3.5 (IPN 052-08135-15) to improve power output evenly at the top and bottom of the 136-174MHz frequency range (710333).
L385	136-156MHz (-10, -13 & -15): changed from 3.5T/4.0 (052-08140-35) to 3.5T/4.5 (IPN 052-08145-35) to improve the output power (710332).
LED1	Red LED (IPN 008-00013-32) changed to Red LED subassembly (IPN 070-02001-00). Red subassembly replaced with Red LED (IPN 008-00014-79).
LED2	Green LED (IPN 008-00013-32) changed to Green LED subassembly (IPN 070-02001-00). Green subassembly replaced with Green LED (IPN 008-00014-79).
Q550	Changed from BCW60 (IPN 000-10008-48) to BC817-25 (IPN 000-10008-17) because BCW60 is underrated. (711093)
R221, R239	Changed from 680 Ω (036-13680-00) to 1k5 (036-14150-00) } To improve power at 174MHz (710028).
R235, R545	Changed from 2k2 (036-14220-00) to 4k7 (036-14470-00) }
R257	Changed from 330k (IPN 036-16330-00) to 560k (IPN 036-16560-00) to allow CTCSS to be set more easily (711184)
R258	T837-10/-20 only: Changed from 150k (IPN 036-16150-00) to 100k (IPN 036-16100-00) to improve deviation (711136)
R290	Changed from 560 Ω (036-13560-00) to 680 Ω (036-13680-00) to reduce the level of side bands generated (710028).

R304	Changed from 15k (036-15150-00) to 2k7 (036-14270-00)	} To improve power at 174MHz (710028).
R332	Changed from 22k (036-15220-00) to 47k (036-15470-00)	
R364, R372	Changed from 1k0 (036-14100-00) to 1k5 (036-14150-00)	
R368	Changed from 1k0 (036-14100-00) to 10k (036-15100-00)	
R677	Changed from 1k0 (036-14100-00) to 47k (036-15470-00)	
R713	Changed from 22W (IPN 036-12220-00) to 0W (IPN 036-10000-00) to improve hum & noise performance (710837/839/840/841, 711437).	
RV220	Changed to IPN 042-05470-07 (47k preset) because IPN 042-05470-06 no longer available (710793/96/97/98).	
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	
349-00020-43	Top lid M4x12 Pozidriv screws (IPN 349-00020-43) replaced with M4x12 Torx screws (IPN 349-20430-00) to ease assembly (711240, 750333)	
349-00020-45	Top lid M4x20 Pozidriv screws (IPN 349-00020-45) replaced with M4x20 Torx screws (IPN 349-20580-00) to ease assembly (711240, 750333)	
362-00010-08	Silpad for Q370 replaced by Silpad IPN 362-01101-00 which needs no thermal paste (710608).	

Ref	Var	IPN	Description	Ref	Var	IPN	Description
R272		036-13560-00	RES M/F 0805 560E 5%	R645		036-13470-00	RES M/F 0805 470E 5%
R273		036-15120-00	RES M/F 0805 12K 5%	R649		036-14470-00	RES M/F 0805 4K7 5%
R274		036-15150-00	RES M/F 0805 15K 5%	R653		036-15100-00	RES M/F 0805 10K 5%
R275		036-14270-00	RES M/F 0805 2K7 5%	R657		036-15100-00	RES M/F 0805 10K 5%
R277		036-16100-00	RES M/F 0805 100K 5%	R661		036-15100-00	RES M/F 0805 10K 5%
R278		036-16120-00	RES M/F 0805 120K 5%	R665		036-16100-00	RES M/F 0805 100K 5%
R279		036-17100-00	RES M/F 0805 1M 5%	R669		036-15470-00	RES M/F 0805 47K 5%
R280		036-15100-00	RES M/F 0805 10K 5%	R673		036-16100-00	RES M/F 0805 100K 5%
R282		036-15560-00	RES M/F 0805 56K 5%	R677		036-15470-00	RES M/F 0805 47K 5%
R283		036-15560-00	RES M/F 0805 56K 5%	R681		036-13100-00	RES M/F 0805 100E 5%
R284		036-17100-00	RES M/F 0805 1M 5%	R685		036-15150-00	RES M/F 0805 15K 5%
R285		036-10000-00	RES M/F 0805 ZERO OHM	R689		036-12100-00	RES M/F 0805 10E 5%
R286		036-14220-00	RES M/F 0805 2K2 5%	R693		036-16100-00	RES M/F 0805 100K 5%
R287		036-15100-00	RES M/F 0805 10K 5%	R696		036-15560-00	RES M/F 0805 56K 5%
R288		036-15150-00	RES M/F 0805 15K 5%	R701		036-12220-00	RES M/F 0805 22E 5%
R289		036-16100-00	RES M/F 0805 100K 5%	R702		036-17100-00	RES M/F 0805 1M 5%
R290		036-13680-00	RES M/F 0805 680E 5%	R703		036-17100-00	RES M/F 0805 1M 5%
R291		036-10000-00	RES M/F 0805 ZERO OHM	R706		036-15150-00	RES M/F 0805 15K 5%
R292		036-14470-00	RES M/F 0805 4K7 5%	R708		036-16100-00	RES M/F 0805 100K 5%
R293		036-15470-00	RES M/F 0805 47K 5%	R710		036-13100-00	RES M/F 0805 100E 5%
R294		036-14470-00	RES M/F 0805 4K7 5%	R711		036-13100-00	RES M/F 0805 100E 5%
R295		036-14270-00	RES M/F 0805 2K7 5%	R712		036-12100-00	RES M/F 0805 10E 5%
R296		036-14100-00	RES M/F 0805 1K 5%	R713		036-12220-00	RES M/F 0805 22E 5%
R297		036-14560-00	RES M/F 0805 5K6 5%	%R715		036-14100-00	RES M/F 0805 1K 5%
%R298		036-16100-00	RES M/F 0805 100K 5%	R717		036-14270-00	RES M/F 0805 2K7 5%
R299		036-14270-00	RES M/F 0805 2K7 5%	R718		036-15560-00	RES M/F 0805 56K 5%
R302		036-15220-00	RES M/F 0805 22K 5%	R719		036-15560-00	RES M/F 0805 56K 5%
R304		036-14270-00	RES M/F 0805 2K7 5%	R720		036-15390-00	RES M/F 0805 39K 5%
R306		036-15100-00	RES M/F 0805 10K 5%	R721		036-15100-00	RES M/F 0805 10K 5%
R308		036-16100-00	RES M/F 0805 100K 5%	R722		036-15100-00	RES M/F 0805 10K 5%
R310		036-15220-00	RES M/F 0805 22K 5%	R723		036-14270-00	RES M/F 0805 2K7 5%
R312		036-14150-00	RES M/F 0805 1K5 5%	R725		036-15390-00	RES M/F 0805 39K 5%
R314		036-13150-00	RES M/F 0805 150E 5%	%R726		036-13100-00	RES M/F 0805 100E 5%
R316		036-15100-00	RES M/F 0805 10K 5%	R727		036-15100-00	RES M/F 0805 10K 5%
R318		036-14220-00	RES M/F 0805 2K2 5%	R728		036-15100-00	RES M/F 0805 10K 5%
R320		036-14100-00	RES M/F 0805 1K 5%	R742		036-13150-00	RES M/F 0805 150E 5%
R322		036-12220-00	RES M/F 0805 22E 5%	R743		036-13150-00	RES M/F 0805 150E 5%
R324		036-13470-00	RES M/F 0805 470E 5%	R744		036-12220-00	RES M/F 0805 22E 5%
R326		036-13470-00	RES M/F 0805 470E 5%	R746		036-12220-00	RES M/F 0805 22E 5%
R328		036-13470-00	RES M/F 0805 470E 5%	R747		036-12220-00	RES M/F 0805 22E 5%
R330		036-12220-00	RES M/F 0805 22E 5%	R748		036-15470-00	RES M/F 0805 47K 5%
R332		036-15470-00	RES M/F 0805 47K 5%	R749		036-15470-00	RES M/F 0805 47K 5%
R334		036-15100-00	RES M/F 0805 10K 5%	R750		036-12220-00	RES M/F 0805 22E 5%
R336		036-14100-00	RES M/F 0805 1K 5%	R752		036-12220-00	RES M/F 0805 22E 5%
R338		036-14100-00	RES M/F 0805 1K 5%	R753		036-17100-00	RES M/F 0805 1M 5%
R340		036-16100-00	RES M/F 0805 100K 5%	R754		036-14100-00	RES M/F 0805 1K 5%
R342		036-15150-00	RES M/F 0805 15K 5%	R756		036-16470-00	RES M/F 0805 470K 5%
R344		036-15470-00	RES M/F 0805 47K 5%	R757		036-16470-00	RES M/F 0805 470K 5%
R346		036-16120-00	RES M/F 0805 120K 5%	R758		036-14120-00	RES M/F 0805 1K2 5%
R348		036-14470-00	RES M/F 0805 4K7 5%	R759		036-13330-00	RES M/F 0805 330E 5%
R350		036-14100-00	RES M/F 0805 1K 5%	R760		036-13180-00	RES M/F 0805 180E 5%
R352		036-15150-00	RES M/F 0805 15K 5%	R762		036-13100-00	RES M/F 0805 100E 5%
R354		036-15150-00	RES M/F 0805 15K 5%	R763		036-13100-00	RES M/F 0805 100E 5%
R356		036-14100-00	RES M/F 0805 1K 5%	R765		036-13680-00	RES M/F 0805 680E 5%
R359		030-53150-20	RES FILM AI 150E 5% 0.4W 4X1.6	R766		036-14100-00	RES M/F 0805 1K 5%
R360		030-52390-20	RES FILM AI 39E 5% 0.4W 4X1.6	R767		036-13680-00	RES M/F 0805 680E 5%
R362		030-53150-20	RES FILM AI 150E 5% 0.4W 4X1.6	R769		036-13180-00	RES M/F 0805 180E 5%
R364		036-14150-00	RES M/F 0805 1K5 5%	R771		036-14820-00	RES M/F 0805 8K2 5%
R366		036-12470-00	RES M/F 0805 47E 5%	R772		036-15220-00	RES M/F 0805 22K 5%
R368		036-15100-00	RES M/F 0805 10K 5%	R774		036-14820-00	RES M/F 0805 8K2 5%
R370		036-13560-00	RES M/F 0805 560E 5%	R775		036-14560-00	RES M/F 0805 5K6 5%
R372		036-14150-00	RES M/F 0805 1K5 5%	R777		036-14220-00	RES M/F 0805 2K2 5%
R374		036-13330-00	RES M/F 0805 330E 5%	R784		036-12680-00	RES M/F 0805 68E 5%
R376		036-14100-00	RES M/F 0805 1K 5%	R785		036-14330-00	RES M/F 0805 3K3 5%
R378		030-53560-20	RES FILM AI 560E 5% 0.4W 4X1.6	R786		036-12100-00	RES M/F 0805 10E 5%
R380		030-53180-20	RES FILM AI 180E 5% 0.4W 4X1.6	R787		036-12100-00	RES M/F 0805 10E 5%
R382		030-53180-20	RES FILM AI 180E 5% 0.4W 4X1.6	R790		036-13220-00	RES M/F 0805 220E 5%
R384		036-11330-00	RES M/F 0805 3E3 5%	R791		036-13100-00	RES M/F 0805 100E 5%
R386		036-12470-00	RES M/F 0805 47E 5%	R792		036-14100-00	RES M/F 0805 1K 5%
R388		030-53560-20	RES FILM AI 560E 5% 0.4W 4X1.6	R801		036-16150-00	RES M/F 0805 150K 5%
R390		030-52120-20	RES M/F 12E 5% 4X1.6 0.2"	R802		036-15470-00	RES M/F 0805 47K 5%
R392		030-53820-20	RES FILM AI 820E 5% 0.4W 4X1.6	R808		036-12100-00	RES M/F 0805 10E 5%
R394		030-52120-20	RES M/F 12E 5% 4X1.6 0.2"	R809		036-14470-00	RES M/F 0805 4K7 5%
R396		030-53820-20	RES FILM AI 820E 5% 0.4W 4X1.6	R810		036-14470-00	RES M/F 0805 4K7 5%
R502		036-13330-00	RES M/F 0805 330E 5%	R811		036-14470-00	RES M/F 0805 4K7 5%
R505		036-15150-00	RES M/F 0805 15K 5%	R812		036-14470-00	RES M/F 0805 4K7 5%
R510		036-13680-00	RES M/F 0805 680E 5%	R813		036-14470-00	RES M/F 0805 4K7 5%
R515		036-12560-00	RES M/F 0805 56E 5%	R815		036-15470-00	RES M/F 0805 47K 5%
R520		036-16120-00	RES M/F 0805 120K 5%	R816		036-16150-00	RES M/F 0805 150K 5%
R525		036-15470-00	RES M/F 0805 47K 5%	R818		036-14470-00	RES M/F 0805 4K7 5%
R530		036-15220-00	RES M/F 0805 22K 5%	R819		036-14470-00	RES M/F 0805 4K7 5%
R535		036-15100-00	RES M/F 0805 10K 5%	R821		036-15470-00	RES M/F 0805 47K 5%
R540		036-14220-00	RES M/F 0805 2K2 5%	R822		036-15470-00	RES M/F 0805 47K 5%
R545		036-14470-00	RES M/F 0805 4K7 5%	R824		036-14220-00	RES M/F 0805 2K2 5%
R550		036-14470-00	RES M/F 0805 4K7 5%	R825		036-14220-00	RES M/F 0805 2K2 5%
R555		036-14470-00	RES M/F 0805 4K7 5%	R826		036-14220-00	RES M/F 0805 2K2 5%
R560		036-14270-00	RES M/F 0805 2K7 5%	R827		036-14220-00	RES M/F 0805 2K2 5%
R609		036-14100-00	RES M/F 0805 1K 5%	R828		036-14220-00	RES M/F 0805 2K2 5%
R613		036-13560-00	RES M/F 0805 560E 5%	R829		036-14220-00	RES M/F 0805 2K2 5%
R615		036-13100-00	RES M/F 0805 100E 5%	R830		036-14220-00	RES M/F 0805 2K2 5%
R617		036-10000-00	RES M/F 0805 ZERO OHM	R831		036-14220-00	RES M/F 0805 2K2 5%
R619		032-31100-00	RES M/F PWR 1E0 5% 1W 12X4.5MM	R832		036-14220-00	RES M/F 0805 2K2 5%
R621		032-31100-00	RES M/F PWR 1E0 5% 1W 12X4.5MM	R833		036-14220-00	RES M/F 0805 2K2 5%
R625		036-14100-00	RES M/F 0805 1K 5%	R835		036-14220-00	RES M/F 0805 2K2 5%
R629		032-33270-00	RES M/F PWR 270E 5% 1W 12X4.5	R836		036-14220-00	RES M/F 0805 2K2 5%
R633		036-14680-00	RES M/F 0805 6K8 5%	R837		036-14220-00	RES M/F 0805 2K2 5%
R637		036-12220-00	RES M/F 0805 22E 5%	R840		036-14220-00	RES M/F 0805 2K2 5%
R641		036-14150-00	RES M/F 0805 1K5 5%	R841		036-14220-00	RES M/F 0805 2K2 5%

Ref	Var	IPN	Description	Ref	Var	IPN	Description
R842		036-14220-00	RES M/F 0805 2K2 5%				
R843		036-14220-00	RES M/F 0805 2K2 5%				
R845		036-13470-00	RES M/F 0805 470E 5%				
R846		036-13470-00	RES M/F 0805 470E 5%				
R847		036-13470-00	RES M/F 0805 470E 5%				
R848		036-14470-00	RES M/F 0805 4K7 5%				
R849		036-13470-00	RES M/F 0805 470E 5%				
R850		036-13470-00	RES M/F 0805 470E 5%				
R853		036-14470-00	RES M/F 0805 4K7 5%				
R854		036-14470-00	RES M/F 0805 4K7 5%				
R855		036-14470-00	RES M/F 0805 4K7 5%				
R859		036-16150-00	RES M/F 0805 150K 5%				
R861		036-16150-00	RES M/F 0805 150K 5%				
R863		036-16150-00	RES M/F 0805 150K 5%				
R865		036-16100-00	RES M/F 0805 100K 5%				
R867		036-16100-00	RES M/F 0805 100K 5%				
R871		036-15470-00	RES M/F 0805 47K 5%				
R872		036-14470-00	RES M/F 0805 4K7 5%				
R873		036-15330-00	RES M/F 0805 33K 5%				
R874		036-14470-00	RES M/F 0805 4K7 5%				
R875		036-15470-00	RES M/F 0805 47K 5%				
R876		036-14470-00	RES M/F 0805 4K7 5%				
R877		036-14470-00	RES M/F 0805 4K7 5%				
R879		036-15100-00	RES M/F 0805 10K 5%				
RV210		040-05100-23	POT 10K LOG PCB 15MM SLOT SFT				
RV220		042-05470-06	RES PRE 47K CAR 6MM FLAT T/ADJ				
RV805		042-05220-07	RES PRE 22K CAR 6MM FLAT D/ADJ				
SK205		240-02020-05	SKT STEREO PHONE JACK PCB MTG				
SK310		240-02100-44	SKT COAX MINI JACK PCB MT ANG.				
SK420		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				

T837 Mechanical & Miscellaneous Parts (220-01390-02)

IPN	Legend	Description	IPN	Legend	Description
012-04150-01		CAP CER F/THRU 1N5 NO LEAD Fitted to D-range pins.	365-00100-09		LABEL WHITE VINYL 15X11MM S/A
051-00006-02		SOLDER SPRING 1.3MM A4M1877 Support for front panel LED solder joints.	365-00100-20		LABEL WHITE S/A 28X11MM
065-00010-13		BEAD FER 7D 1.9X0.9X3.8 Fitted to D-range pins.	365-01541-00		LABEL TX/RX/EX TYPE APR/SER NO
200-00010-05		WIRE T/C 0.5 For ferrite beads.	400-00020-07		SLEEVING 2MM SIL RUBBER
201-00030-02		WIRE T/C 7/0.2 PVC RED Front panel LEDs.	410-01081-01		CRT T800 SERIES II
201-00030-10		WIRE T/C 7/0.2 PVC BLACK Front panel LEDs.	410-01082-01		CRTN 10 T800 KIWI 423X410X360
206-00010-11		COAX 50 OHM RG316-U PTFE Connects SK310 to SK420.			
220-01176-03	1	PCB T83X VCO			
220-01390-02	2	PCB T837 EX SERIES II			
232-00020-26	3	BUTTON 232-00010-26 SWITCH			
240-00010-55	25	PLUG 15 W D RANGE W/W PNL MT PL100.			
240-00100-43		PLG COAX MINI PIN CRIMP 1.5D For coax connecting SK310 to SK420.			
240-02100-06	4	SKT COAX N TYPE PNL MTG OP-TER			
240-04020-62		SKT 2 W RECEP SHORTING LINK PL205/210/215/220.			
303-11169-03	5	CHASSIS PAINTED T800 SERIES			
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			
312-01052-01	10	LID TOP PNTD A1M2364 T800			
312-01053-01	11	LID BOTTOM PNTD A1M2364 T800			
316-06619-00	12	PNL FRT EX NO EX OUT SER II			
319-01152-00	13	SHIELD A3M2250 F/THRU MTG			
345-00040-10	14	SCRW M3X6MM P/POZ ST BZ			
349-00020-36	15	LIM)SCREW TT M3X8m PANTORX BLK			
349-00020-43	16	SCRW T/T M4X12MM P/POZ BZ			
349-00020-45	17	SCRW T/T M4X20MM P/POZ BZ			
350-00016-42	18	SPACER 5MM HI 8MM ST 2.5MM HO			
352-00010-08	19	NUT M3 COLD FORM HEX ST BZ			
352-00010-29	20	NUT M4 NYLOC HEX			
353-00010-10	21	WSHR M3 FLAT 7MMX0.6MM ST BZ			
353-00010-13	22	WSHR M3 S/PROOF INT BZ			
362-00010-08		GASKET SIL INSUL TO-5 TO-39 Under Q370.			
362-00010-23	23	GASKET SIL TO-220 CLIP MTG.			
362-00010-33	24	GROMMET LED MTG 3MM			
365-00011-53		LABEL 104X37MM			

replace A4 pages C6.3.11/C6.3.12 with A3 pages C6.3.11/C6.3.12

replace A4 pages C6.3.11/C6.3.12 with A3 pages C6.3.11/C6.3.12

T837 Grid Reference Index (IPN 220-01390-02)**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.

<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>
C201	1:C1	2-B8	C318	2:F8	3-F9	C681	1:M5	6-R3	C827	1:N3	8-D0
C202	1:C1	2-C8	C320	2:F7	3-G8	C684	1:M5	6-R3	C828	1:N3	8-E0
C204	1:A2	2-E8	C324	2:F8	3-H9	C687	1:L6	6-Q1	C830	1:N3	8-R1
C205	1:A2	2-E8	C330A	2:F8	3-N8	C690	1:L6	6-R1	C838	1:N4	8-F0
C207	1:C7	2-B6	C330B	1:F8	3-N8	C693	1:L6	6-R1	C841	1:N2	8-K2
C209	1:C6	2-D6	C332	2:E4	3-B5	C700	1:K4	7-A8	C844	1:M2	8-L2
C210	1:C7	2-H0	C334	2:E4	3-D4	C703	1:J3	7-B7	C910	1:P7	9-E4
C211	1:B7	2-F8	C336	2:E4	3-D6	C705	1:J3	7-B7	C920	1:P7	9-F4
C213	1:B6	2-G8	C338	2:E5	3-F5	C706	1:J2	7-B5	C930	1:P6	9-G4
C215	1:B6	2-G8	C340	2:E5	3-F5	%C707	1:K4	7-C8			
C217	1:C6	2-H8	C342	2:E4	3-G6	C708	1:J2	7-C9	D111	1:P4	1-R1
C219	1:C6	2-H7	C344	2:E5	3-J5	C709	1:K4	7-D9	%D205	1:B2	2-D9
C221	1:D5	2-G6	C346	2:E6	3-J6	C710	1:J3	7-E8	%D210	1:B2	2-E9
C223	1:C5	2-J6	C349	2:F4	3-C2	C712	1:H2	7-E7	D220	1:B4	2-P7
C225	1:C3	2-K7	C350	2:F4	3-E3	%C713	1:H2	7-E6	D220	1:B4	2-P6
C227	1:B4	2-K7	C353	2:F4	3-D0	C720	1:J3	7-F8	D230	1:B7	2-R5
C229	1:B3	2-L7	C356	2:E4	3-F1	C722	1:J4	7-G8	D240	1:D4	2-C4
C230	1:B4	2-H0	C359	2:E5	3-F1	C724	1:J4	7-H6	D240	1:D4	2-B2
C232	1:A4	2-M7	C362	2:F4	3-G2	C725	1:J4	7-J6	D250	1:D3	2-E2
C233	1:A5	2-N7	C365	2:F4	3-G2	C726	1:K4	7-J6	D250	1:D3	2-D3
C235	1:B5	2-K5	C368	2:F5	3-H2	C727	1:J3	7-J8	D260	1:C2	2-C2
C237	1:C4	2-K5	C370	2:F5	3-K3	C729	1:H3	7-M8	D260	1:C2	2-C2
C239	1:C4	2-L4	C373	1:E6	3-L4	%C733	1:J3	7-M5	D270	1:D2	2-C1
C241	1:B4	2-M6	C376	2:F8	3-L4	C735	1:J2	7-A1	D270	1:D2	2-C1
C242	1:B3	2-L6	C379	2:F5	3-K3	C736	1:J2	7-B1	D340	2:F4	3-D2
C243	1:B4	2-P6	C382	2:E5	3-L2	C740A	1:H2	7-B4	D350	2:F4	3-E2
C245	1:C5	2-A4	C385	1:F6	3-P4	C740B	1:H2	7-B3	D360	2:F4	3-E2
C247	1:D4	2-B4	C388	2:F7	3-P4	C741A	1:H2	7-C4	D610	1:N6	6-L6
C249	1:D4	2-C4	C391	2:E6	3-P2	C741B	1:G2	7-C3	D610	1:N6	6-K6
C251	1:C3	2-E4	C394	2:E6	3-P3	C742A	1:H2	7-D4	D620	1:N4	6-B1
C253	1:D3	2-E3	C396	2:E6	3-Q3	C742B	1:H3	7-D3	D620	1:N4	6-B2
C255	1:D3	2-D2	C399	2:E5	3-R4	C743	1:H2	7-B1	D630	1:M5	6-G2
C257	1:D3	2-F2	C503	1:K6	5-L9	C745	1:G3	7-D1	D630	1:M5	6-G3
C259	1:C6	2-J2	C505	1:K6	5-M6	C750	1:H4	7-Q7	D635	1:M4	6-G3
C260	1:D8	2-G0	C510	1:J5	5-C0	C757	1:G4	7-F5	D640	1:L5	6-M1
C261	1:C6	2-K2	C513	1:H5	5-G2	C759	1:G4	7-G4	D640	1:L5	6-M2
C263	1:D6	2-L3	C535	1:K5	5-M2	C761	1:G3	7-J4	D710	1:J3	7-L8
C265	1:D5	2-N4	C550	1:K4	5-L0	C762	1:G3	7-K4	D710	1:J3	7-L8
C267	1:C8	2-P3	C605	1:L6	6-D8	C764	1:H3	7-J2	D720	1:H3	7-P8
&C269	1:C8	2-P3	C610A	1:M5	6-F8	C765	1:G3	7-K2	D720	1:H3	7-P8
C271	1:C8	2-Q3	C610B	1:M5	6-G8	C767	1:H3	7-K3	D730	1:H3	7-H1
C273	1:C8	2-Q4	C611A	1:L5	6-H8	C769	1:H4	7-N4	D740	1:H3	7-K2
C275	1:D3	2-E1	C611B	1:M5	6-J8	C770	1:H4	7-N4	D810	1:M2	8-B7
C277	1:C4	2-G1	C623	1:M6	6-N8	C772	1:G4	7-N2			
C279	1:B4	2-G1	C625	1:M6	6-Q8	C774	1:H4	7-P2	IC210	1:C7	2-H0
C281	1:B5	2-J1	C626	1:M6	6-R8	C776	1:H4	7-N1	IC210	1:C7	2-Q0
C283	1:B5	2-K0	C628	1:M6	6-R8	C782	1:G2	7-N1	IC210	1:C7	2-K2
C285	1:D7	2-L0	C630	1:M5	6-K5	C784	1:G2	7-Q1	IC210	1:C7	2-L1
C287	1:C6	2-M1	C631A	1:M5	6-M6	C786	1:G2	7-R1	IC210	1:C7	2-C6
C289	1:C8	2-N1	C634	1:N5	6-M4	C788	1:G3	7-P0	IC220	1:D6	2-P0
C291	1:D7	2-P1	C636	1:M5	6-M4	C790	1:G3	7-Q0	IC220	1:D6	2-M3
C293	1:D7	2-Q1	C638	1:M6	6-P5	C792	1:G3	7-Q0	IC220	1:D6	2-D5
%C294	1:D7	2-Q0	C640	1:M5	6-R6	C810	1:L3	8-K8	IC230	1:B4	2-G0
%C295	1:D6	2-Q0	C655	1:M4	6-C1	C812	1:L2	8-F5	IC230	1:B4	2-J0
C304	2:F7	3-A8	C660	1:L5	6-K1	C813	1:K2	8-H5	IC230	1:B4	2-L5
C308	2:F7	3-C8	C665	1:L5	6-K1	C822	1:M2	8-B2	IC230	1:B4	2-N6
C312	2:F7	3-D8	C670	1:L6	6-L1	C823	1:M3	8-C2	IC230	1:B4	2-G1
C316	2:E8	3-D9	C673	1:L5	6-P2	C824	1:M2	8-C1	IC240	1:D4	2-F3
C317	2:F8	3-E8	C677	1:L6	6-P1	C826	1:N3	8-C0	IC250	1:D3	2-E1

Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit	Device	PCB	Circuit
IC260	1:D8	2-N0	P239	1:C7	2-R8	Q820	1:L2	8-D5	R284	1:D7	2-L0
IC260	1:D8	2-F0	P240	1:C7	2-R8	Q830	1:L2	8-D5	R285	1:C8	2-M0
IC260	1:D8	2-Q2	P243	1:B7	2-R7	Q840	1:L2	8-F5	R286	1:C7	2-M0
IC260	1:D8	2-Q3	P244	1:B7	2-R7	Q850	1:M2	8-G5	R287	1:D9	2-M0
IC260	1:D8	2-N3	P245	1:B8	2-R6	Q860	1:L4	8-B3	R288	1:C6	2-M2
IC330	1:E8	3-E9	P247	1:B8	2-R6				R289	1:D9	2-M0
IC330	1:E8	3-M8	P248	1:B7	2-R6	%R150	1:P2	1-R4	R290	1:C8	2-N2
IC330	1:E8	3-M0	P249	1:C7	2-R5	R160	1:P2	1-R3	R291	1:C8	2-N1
IC610	1:M5	6-G8	P251	1:C7	2-R5	R201	1:B2	2-E9	R292	1:D8	2-Q2
IC630	1:N5	6-K5	P255	1:D5	2-R4	R202	1:C1	2-F9	R293	1:D9	2-Q2
IC640	1:M5	6-F1	P257	1:C2	2-R4	R204	1:C7	2-B6	R294	1:D9	2-Q1
IC640	1:M5	6-Q6	P259	1:B8	2-R3	R205	1:C7	2-D6	R295	1:D8	2-R1
IC640	1:M5	6-N6	P261	1:B8	2-R3	R206	1:B7	2-G8	R296	1:D6	2-P0
IC650	1:L5	6-F4	P263	1:B2	2-R2	R207	1:B6	2-G8	R297	1:D7	2-P1
=IC700	1:K3	7-A8	P265	1:C5	2-M0	R208	1:B6	2-G8	%R298	1:D7	2-Q0
IC710	1:J2	7-E8	P267	1:C8	2-N2	R209	1:C6	2-H8	R299	1:C7	2-R0
IC710	1:J2	7-C6	P269	1:D8	2-P2	R210	1:B6	2-H7	R302	2:F7	3-A7
IC710	1:J2	7-G0	P271	1:C9	2-N1	R212	1:D4	2-F6	R304	2:E7	3-B7
IC710	1:J2	7-D6	P273	1:D9	2-P0	R213	1:C4	2-G6	R306	2:F7	3-C8
IC710	1:J2	7-D7	P275	1:D7	2-Q0	R214	1:D4	2-G6	R308	2:E8	3-C9
IC710	1:J2	7-D6	P750	1:H4	7-R3	R215	1:C4	2-H6	R310	2:F8	3-C9
IC710	1:J2	7-C6	P805	1:M2	8-A7	R216	1:C3	2-K7	R312	2:F8	3-D8
IC720	1:J3	7-P6	P810	1:L3	8-A5	R217	1:A4	2-M8	R314	2:F8	3-D7
IC720	1:J3	7-J0	P820	1:L4	8-M8	R218	1:A4	2-N7	R316	2:F8	3-E8
IC720	1:J3	7-N7	P825	1:L4	8-M8	R219	1:B4	2-N8	R318	2:F8	3-E9
IC720	1:J3	7-M7	P830	1:L4	8-M8	R221	1:B7	2-R7	R320	2:F8	3-G9
IC720	1:J3	7-K7	P835	1:L4	8-M7	R223	1:B4	2-K6	R322	2:F8	3-H8
IC720	1:J3	7-F8	P840	1:L4	8-M7	R224	1:C4	2-K5	R324	2:F7	3-J8
IC720	1:J3	7-K0				R225	1:B4	2-L5	R326	2:F7	3-J7
IC730	1:J4	7-H8	PL100	1:P3	1-F0	R226	1:B4	2-L4	R328	2:F7	3-K8
IC730	1:J4	7-G7	PL205	1:C5	2-J8	R227	1:B4	2-M4	R330	2:F8	3-M8
IC740	1:H2	7-D1	PL210	1:C3	2-H4	R229	1:B4	2-M7	R332	2:E4	3-C5
IC750	1:H4	7-N3	PL215	1:C4	2-K3	R230	1:B4	2-M6	R334	2:E4	3-D6
IC750	1:H4	7-H5	PL220	1:C4	2-H2	R231	1:B4	2-M6	R336	2:E4	3-D5
IC750	1:H4	7-Q7				R232	1:B4	2-M5	R338	2:E4	3-D4
IC820	1:L4	8-N2	Q210	1:C6	2-J8	R233	1:B4	2-M6	R340	2:E5	3-D5
IC830	1:N3	8-J0	Q220	1:B3	2-L7	R235	1:B4	2-P6	R342	2:E4	3-F5
IC830	1:N3	8-Q1	Q230	1:A4	2-M8	R237	1:B7	2-Q7	R344	2:E5	3-F6
IC830	1:N3	8-J0	Q240	1:B7	2-Q7	R238	1:B7	2-R7	R346	2:E5	3-F6
IC830	1:N3	8-J1	Q250	1:B7	2-R5	R239	1:B8	2-R6	R348	2:E5	3-G5
IC830	1:N3	8-C0	Q260	1:C4	2-F3	R241	1:B8	2-Q6	R350	2:E5	3-H5
			Q270	1:D2	2-D1	R242	1:B7	2-Q5	R352	2:E6	3-J6
L335	1:F4	3-E3	Q305	2:E7	3-B8	R244	1:C6	2-A5	R354	2:E5	3-J6
L340	1:E4	3-F2	Q310	2:F8	3-G8	R245	1:D4	2-D4	R356	2:E6	3-K6
L345	1:F5	3-H2	Q315	1:F8	3-J8	R247	1:D3	2-E4	R359	1:F5	3-B2
L350	1:F5	3-H2	Q320	2:E5	3-A5	R248	1:C3	2-E3	R360	1:F4	3-C2
L355	1:F5	3-J3	Q325	2:E4	3-C5	R249	1:D4	2-F3	R362	1:F4	3-C2
L360	1:F5	3-K3	Q330	2:E4	3-D4	R251	1:C4	2-G4	R364	2:F4	3-D2
L365	1:E5	3-L3	Q335	2:E4	3-E6	R253	1:C6	2-J2	R366	2:F4	3-D1
L370	1:E5	3-M2	Q340	2:E5	3-G6	R254	1:C6	2-K3	R368	2:F4	3-D0
L375	1:E6	3-M4	Q345	2:E5	3-H6	R255	1:C7	2-K2	R370	2:F4	3-E1
L380	1:F6	3-N4	Q365	1:F5	3-J2	R256	1:D8	2-M3	R372	2:E5	3-G1
L385	1:F6	3-N3	Q370	1:E5	3-N3	R257	1:D8	2-N5	R374	2:F5	3-J2
L390	1:E6	3-R4	Q510	1:J5	5-D1	R258	1:D8	2-N4	R376	2:F5	3-J2
L750	1:G4	7-R0	Q520	1:J5	5-H2	R259	1:D5	2-P4	R378	1:F5	3-J3
L910	1:P7	9-F4	Q530	1:J5	5-H0	R260	1:D8	2-N4	R380	1:F5	3-J4
L920	1:P7	9-G4	Q540	1:K5	5-L2	R262	1:D8	2-N3	R382	1:F5	3-J4
			Q550	1:K5	5-L0	R263	1:C8	2-P3	R384	2:E6	3-L4
P100	1:P6	1-R8	Q610	1:L6	6-E8	&R264	1:C8	2-P3	R386	2:E6	3-L2
P150	1:P2	1-Q4	Q620	1:N6	6-P8	&R265	1:C8	2-P3	R388	1:F6	3-M4
P160	1:P2	1-Q4	Q630	1:M6	6-P5	&R266	1:C8	2-P3	R390	1:E6	3-Q3
P170	1:P2	1-Q3	Q660	1:L5	6-N1	R267	1:C8	2-R2	R392	1:E6	3-P2
P204	1:D1	2-A8	Q670	1:L6	6-Q2	R268	1:D2	2-C0	R394	1:E6	3-Q3
P208	1:D1	2-A8	Q710	1:J3	7-K8	R269	1:C2	2-C1	R396	1:E6	3-Q2
P210	1:D6	2-A7	Q720	1:J3	7-K8	R270	1:C2	2-D1	R502	1:K6	5-K9
P211	1:D5	2-A7	Q730	1:H3	7-N8	R271	1:C3	2-E1	R505	1:K6	5-L8
P212	1:D6	2-A6	Q740	1:H3	7-N8	R272	1:C4	2-F2	R510	1:K6	5-L7
P215	1:D4	2-A2	Q750	1:G4	7-F3	R273	1:B5	2-G2	R515	1:H6	5-J5
P217	1:D4	2-A2	Q760	1:H3	7-H3	R274	1:C4	2-G1	R520	1:J5	5-C1
P219	1:D2	2-A1	Q770	1:H3	7-H1	R275	1:C4	2-H0	R525	1:J5	5-D1
P225	1:D2	2-A0	Q775	1:H3	7-K3	R277	1:B5	2-J1	R530	1:J5	5-D0
P230	1:C5	2-B0	Q780	1:H3	7-K3	R278	1:B5	2-J0	R535	1:J5	5-E1
P231	1:D8	2-B0	Q785	1:H3	7-K2	R279	1:B5	2-K0	R540	1:K5	5-H2
P233	1:C1	2-R9	Q790	1:H4	7-M3	R280	1:B5	2-K0	R545	1:K5	5-J1
P235	1:C1	2-R9	Q795	1:G3	7-P0	R282	1:D7	2-K1	R550	1:K5	5-K2
P237	1:B7	2-R8	Q810	1:M2	8-E7	R283	1:D7	2-L1	R555	1:K5	5-K1

<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>
R560	1:K5	5-M0	R785	1:G3	7-Q1	SK533	1:K5	5-N4			
R609	1:L6	6-B8	R786	1:G2	7-Q1	SK534	1:K5	5-N3			
R613	1:L6	6-C8	R787	1:G2	7-R2	SK535	1:K5	5-N2			
R615	1:M5	6-F9	R790	1:G3	7-P0	=SK710	1:K3	7-A7			
R617	1:M5	6-J8	R791	1:G3	7-Q0	SK805	1:K3	8-Q9			
R619	1:M6	6-L8	R792	1:G3	7-Q0	SK805	1:K3	8-Q7			
R621	1:M6	6-L8	R801	1:M2	8-D7	SK805	1:K3	8-Q5			
R625	1:N6	6-L7	R802	1:M2	8-D7	SK805	1:K3	8-Q7			
R629	1:M5	6-P6	R808	1:L2	8-B4	SK805	1:K3	8-Q8			
R633	1:M5	6-Q8	R809	1:L2	8-D5	SK805	1:K3	8-Q7			
R637	1:N5	6-K6	R810	1:L2	8-D6	SK805	1:K3	8-Q8			
R641	1:N5	6-L4	R811	1:L2	8-E6	SK805	1:K3	8-Q6			
R645	1:N5	6-L5	R812	1:L2	8-D5	SK805	1:K3	8-Q8			
R649	1:M5	6-M5	R813	1:L2	8-D4	SK805	1:K3	8-Q6			
R653	1:M5	6-Q4	R815	1:L2	8-F4	SK805	1:K3	8-Q6			
R657	1:M5	6-D1	R816	1:L2	8-F4	SK805	1:K3	8-Q9			
R661	1:M5	6-E3	R818	1:M2	8-F5	SK805	1:K3	8-Q6			
R665	1:M5	6-E2	R819	1:M2	8-F5	SK805	1:K3	8-Q9			
R669	1:M5	6-E2	R821	1:M4	8-B3	SK805	1:K3	8-Q7			
R673	1:M5	6-E0	R822	1:M4	8-E3	SK805	1:K3	8-Q8			
R677	1:M4	6-F4	R824	1:L4	8-L8	SK810	1:M3	8-H5			
R681	1:L5	6-L2	R825	1:L4	8-L8						
R685	1:L5	6-N2	R826	1:L4	8-L8	SL201	2:D1	2-B9			
R689	1:L6	6-Q3	R827	1:L4	8-L7	SL202	2:D1	2-B8			
R693	1:L6	6-Q1	R828	1:L4	8-L7	SL203	2:D2	2-B2			
R696	1:M6	6-Q1	R829	1:L4	8-P9	SL204	2:D2	2-B1			
R701	1:K4	7-A9	R830	1:L3	8-P9	SL320	1:E4	3-E4			
R702	1:K4	7-C9	R831	1:L3	8-P9	SL501	2:J5	5-F0			
R703	1:J3	7-C8	R832	1:L3	8-P8	SL810	1:M2	8-C7			
=R705	1:K3	7-A7	R833	1:L3	8-P8						
R706	1:J3	7-B6	R835	1:L3	8-P8	SW230	1:B8	2-B4			
R708	1:H3	7-C7	R836	1:L3	8-P8						
R710	1:H2	7-E7	R837	1:L3	8-P7	T210	1:B2	2-C8			
R711	1:J2	7-B6	R840	1:L3	8-P7	T610	1:L5	6-N2			
R712	1:J3	7-D9	R841	1:L3	8-P7						
R713	1:J4	7-F8	R842	1:L3	8-P6	TP206	1:D5	2-H7			
%R715	1:K4	7-H6	R843	1:L3	8-P6	TP305	2:E6	3-L6			
R717	1:J4	7-H7	R845	1:M4	8-Q5	TP308	1:E5	3-G6			
R718	1:J4	7-H7	R846	1:K2	8-Q4	TP601	1:N5	6-K9			
R719	1:J4	7-J6	R847	1:K2	8-Q4	TP602	1:L6	6-R9			
R720	1:J3	7-K7	R848	1:L2	8-J4	TP603	1:L5	6-J2			
R721	1:J3	7-K9	R849	1:M4	8-Q3	TP604	1:L5	6-M6			
R722	1:J3	7-K8	R850	1:K2	8-Q4	TP607	1:L4	6-J9			
R723	1:H3	7-M7	R853	1:M4	8-N3	TP710	1:H4	7-H5			
R725	1:J4	7-N7	R854	1:M4	8-N3	TP715	1:J2	7-C6			
%R726	1:J3	7-N6	R855	1:M2	8-B0						
R727	1:H3	7-N9	R859	1:N2	8-C1						
R728	1:H3	7-N8	R861	1:N2	8-D1						
R742	1:H2	7-B4	R863	1:N3	8-E1						
R743	1:H2	7-C5	R865	1:N4	8-E0						
R744	1:G2	7-D4	R867	1:N3	8-E1						
R746	1:H3	7-E4	R871	1:N3	8-G2						
R747	1:H3	7-E5	R872	1:M4	8-H1						
R748	1:J2	7-A1	R873	1:N3	8-G1						
R749	1:J2	7-B1	R874	1:N3	8-H0						
R750	1:H4	7-Q7	R875	1:N3	8-G0						
R752	1:G4	7-F5	R876	1:N3	8-H0						
R753	1:G4	7-F3	R877	1:M2	8-K2						
R754	1:G3	7-F3	R879	1:N2	8-L3						
R756	1:G3	7-G5									
R757	1:G4	7-G4	RV210	1:B7	2-F9						
R758	1:H3	7-H4	RV220	1:A4	2-M6						
R759	1:H3	7-J4	RV805	1:N4	8-F1						
R760	1:H3	7-K4									
R762	1:H3	7-K4	SK205	1:B5	2-A5						
R763	1:H4	7-L4	SK310	1:E7	3-R3						
R765	1:H3	7-H2	SK420	1:M8	1-M8						
R766	1:G3	7-J3	SK501	1:G6	5-D6						
R767	1:H3	7-K2	SK502	1:G6	5-D5						
R769	1:H3	7-L3	SK503	1:G6	5-D4						
R771	1:H4	7-M3	SK504	1:G5	5-D3						
R772	1:G4	7-M2	SK505	1:G5	5-D2						
R774	1:H4	7-M2	SK513	1:H5	5-H3						
R775	1:H4	7-N2	SK522	1:H6	5-K5						
R777	1:H4	7-R3	SK531	1:K6	5-N6						
R784	1:G3	7-P1	SK532	1:K5	5-N5						

