Digital Harddisk Player

HDD100, HDD120

all versions

Service
Service
Service

Service Manual

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GB 3140 785 32431

Version 1.1

PHILIPS

TECHNICAL SPECIFICATION

General

Dimensions	: 106.5 x 64.5 x 20.0mm
Weight	: 167g
Output power	: 2 x 5mW
Frequency response	: 20-20,000Hz
Hard disk	: low profile 1.8”HDD100
Capacity	: 15GB (HDD100)
	: 20GB (HDD120)
Battery life time	: >10hr
File transfer rate using USB1.1	: 900kbyte/s
File transfer rate using USB2.0	: 11Mbyte/s
Battery charging current	: 600-700mA
Maximum charging time	: 4hr
Battery cutoff voltage	: 3.0V

Power supply

Regulated Voltage Supply	Remarks
+3.3V	
+2.5V	For SPDIF Receiver only
+1.8V	For CPU and Audio Codec

Battery level detection

DETECTION LEVEL	□ Typ.
□4-step to 3-step voltage	3.90V
□3-step to 2-step voltage	3.75V
□2-step to 1-step voltage	3.65V
□Force Power Off voltage	3.50V

Current consumption

DC-IN SUPPLY (5.0V)		BATT. SUPPLY (3.8V)	
Battery Charging Current	650mA typ.	Shutdown	1.5μA typ.
Playback without HDD reading	70mA typ.	Standby	2.2mA typ.
File tranfer using USB2.0	775mA typ.	Idle with LCD Backlight on□	100mA typ.
		Idle with LCD Backlight off	55mA typ.
		Playback without HDD reading	85mA typ.
		File tranfer using USB2.0	980mA typ.

Headphone out (headphone output load: 2x16Ω)

Maximum output power	:+/-1.0mW (1kHz)
Frequency response(16ohm load)	:55Hz-15kHz
Frequency response(15kohm load)	:30Hz-15kHz
SNR (A-wght)	:>75dB (80dB typ.)
THD (1kHz)	:<0.3% (0.1% typ.)
THD (20Hz-16kHz)	:<1.0% (0.6% typ.)
Left-Right Channel Separation	:>50dB (55dB typ.)
Left-Right Channel Balance	:<1.5dB
Default Output Power	:0.04mW
No.of Steps in Volume Control	:32
Volume control	:1dB

Mic-in Recording to Headphone out

Output Power at maximum volume	:0.22mW typ.
SNR (A-wght)	:>25dBA (32dBA typ.)
THD (1kHz)	:<3% (1% typ.)
Frequency response (100Hz-4kHz)	: 400Hz-3.2kHz

Line-in Recording

Maximum output power	:+/-1.0mW (1kHz)
SNR (un-wght)	:>70dB (75dB typ.)
THD (1kHz)	:<0.3% (0.1% typ.)
THD (20Hz-16kHz)	:<1.0% (0.6% typ.)
Frequency response(16ohm load)	:55Hz-15kHz
Frequency response(15kohm load)	:30Hz-15kHz
Left-Right Channel Separation	:>50dB (55dB typ.)
Left-Right Channel Balance	:<1.5dB

Accessories

ACCESSORIES FOR HARDDISK PLAYER	HDD100			HDD120		
	/00	/05	/17	/00	/05	/17
AY3192 AC/DC Adaptor 3140 118 33801	X			X		
AY3192 AC/DC Adaptor 3140 118 33811		X			X	
AY3192 AC/DC Adaptor 3140 118 33821			X			X
HE570/77P Headphone 9082 100 02001	X	X	X	X	X	X
AY3779 Remote control 3140 118 51541	X	X	X	X	X	X
AY3911 Cable USB2.0 3140 110 22411	X	X	X	X	X	X
AY3274 Pouch 3140 113 10661	X	X	X	X	X	X
CD Rom-IFU HDD100 3140 118 72071	X	X	X	X	X	X

SAFETY & WARNINGS

ESD

(GB) WARNING
All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wristband with resistance. Keep components and tools at this potential.

(F) ATTENTION
Tous les IC et beaucoup d´autres semi-conducteurs sont sensibles aux décharges statiques (ESD). Leur longévite pourrait être considérablement écourtée par le fait qu´aucune précaution nést prise à leur manipulation.
Lors de réparations, s´assurer de bien être relié au même potentiel que la masse de l´appareil et enfileer le bracelet serti d´une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l´on utilise soient également à ce potentiel.

(D) WARNUNG
Alle ICs und viele andere Halbleiter sind empfindlich gegenüber elektrostatischen Entladungen (ESD).
Unsorgfältige Behandlung im Reparaturfall kann die Lebensdauer drastisch reduzieren.
Sorgen Sie dafür, daß Sie im Reparaturfall über ein Puls-armband mit Widerstand mit dem Massepotential des Gerätes verbunden sind.
Halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

(NL) WAARSCHUWING
Alle IC´s en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen vermindern. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(I) AVVERTIMENTO
Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione. Durante le riparationi occorre quindi essere collegato allo stesso potenziale che quello della massa delápparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

(GB) AVAILABLE ESD PROTECTION EQUIPMENT :

anti-static table mat	large	1200x650x1.25mm	4822 466 10953
	small	600x650x1.25mm	4822 466 10958
anti-static wristband			4822 395 10223
connection box (3 press stud connections, 1MΩ)			4822 320 11307
extendible cable (2m, 2MΩ, to connect wristband to connection box)			4822 320 11305
connecting cable (3m, 2MΩ, to connect table mat to connection box)			4822 320 11306
earth cable (1MΩ, to connect any product to mat or to connection box)			4822 320 11308
KIT ESD3 (combining all 6 prior products - small table mat)			4822 310 10671
wristband tester			4822 344 13999

SAFETY

(GB)
Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.
Safety components are marked by the symbol ⚠

(F)
Les normes de sécurité exigent que l`appareil soit remis à l`état d`origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.
Les composants de sécurité sont marqués ⚠

(D)
Bei jeder Reparatur sind die geltenden Sicherheitsvor-schriften zu beachten. Der Originalzustand des Gerätes darf nicht verändert werden. Für Reparaturen sind Original-ersatzteile zu verwenden.
Sicherheitsbauteile sind durch das Symbol ⚠ markiert.

(NL)
Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkeliijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde, worden toegepast.
De Veiligheidsonderdelen zijn aangeduid met het symbool ⚠

(I)
Le norme di sicurezza estigono che l´apparecchio venga rimesso nelle condizioni originali e che siano utilizzati i pezzi di ricambiago identici a quelli specificati.
Componenty di sicurezza sono marcati con ⚠

(GB) **DANGER**: Invisible laser radiation when open.
AVOID DIRECT EXPOSURE TO BEAM.

(S) Varning !
Osynlig laserstrålning när apparaten är öppnad och spärren är urkopplad. Betrakta ej strålen.

(DK) Advarsel !
Usynlig laserstråling ved åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsaettelse for stråling.

(FIN) Varoitus !
Avatussa laitteessa ja suojalukituksen ohitettaessa olet alttiina näkymättömälle laserisäteilylle. Älä katso säteeseen !

(GB)
After servicing and before returning the set to customer perform a leakage current measurement test from all exposed metal parts to earth ground, to assure no shock hazard exists.
The leakage current must not exceed 0.5mA.

(F)
"Pour votre sécurite, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

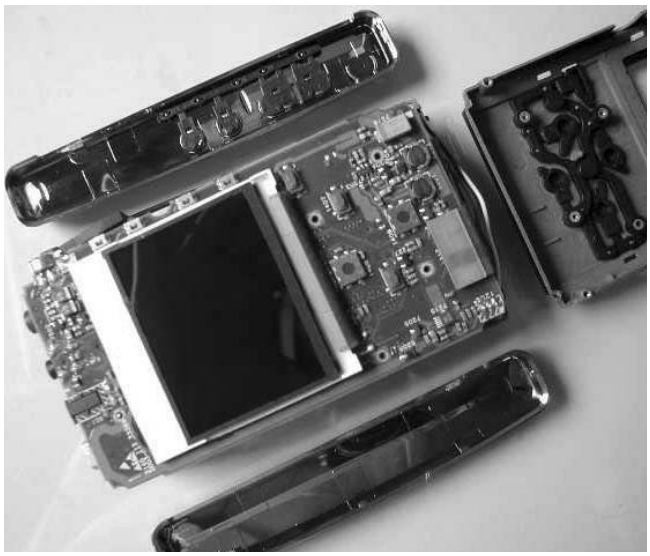
SERVICE HINTS

REPAIR POSITION COPPERSIDE

To get access to the copperside of the printed board assembly proceed as follows:

1.Remove screws 2pcs (1.4X4 on the cap assy)
  Remove CAP right and left
2.Remove screws 5pcs (1.7x5 on the rear cabinet)
3.Lift battery and copper foil

REPAIR POSITION COMPONENTSIDE



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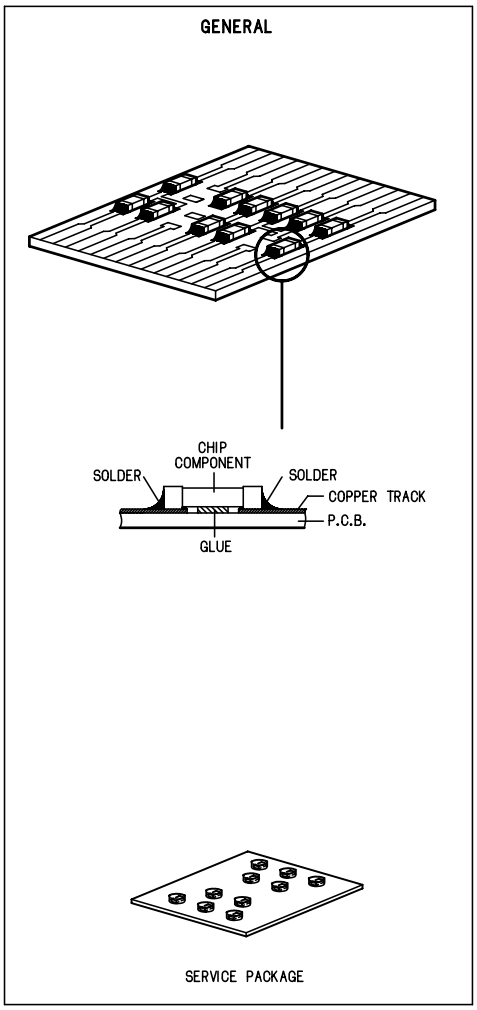
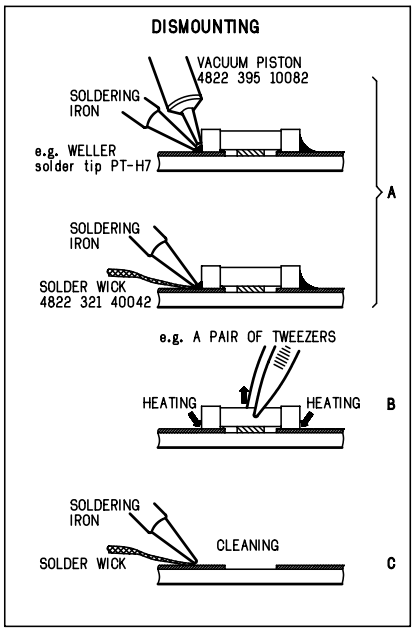
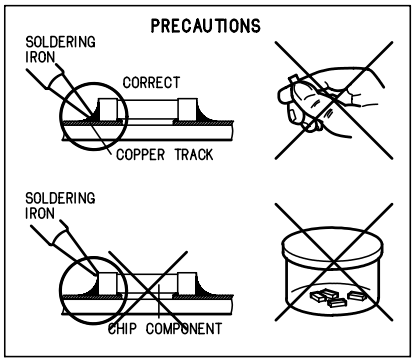
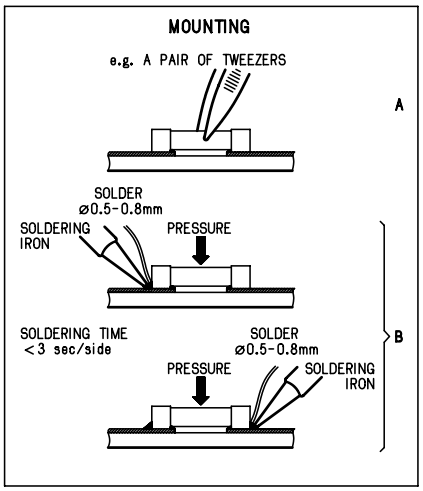
  Remove CAP right and left
2.Remove screws 5pcs (1.7x5 on the rear cabinet)
3.Lift battery and copper foil
4.Remove screws 5pcs(1.4x4 on the PCB assy)

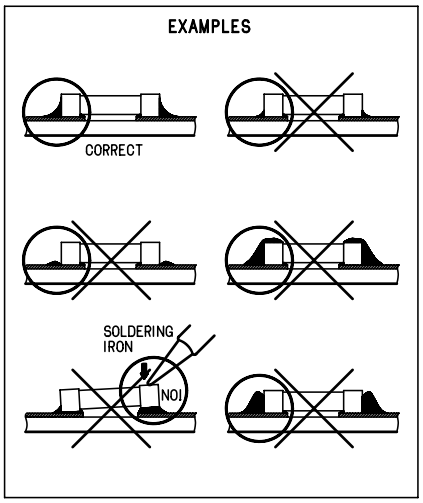
HANDLING CHIP COMPONENTS











ESD PROTECTION EQUIPMENT

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Wristband tester	4822 344 12999

PIN DESCRIPTIONS OF IC CY7C68013

4.1 CY7C68013 Pin Descriptions

Table 4-1. FX2 Pin Descriptions[5]

128 TQFP	100 TQFP	56 SSOP	56 QFN	Name	Type	Default	Description
10	9	10	3	AVCC	Power	N/A	**Analog V_{CC}**. This signal provides power to the analog section of the chip.
13	12	13	6	AGND	Power	N/A	**Analog Ground**. Connect to ground with as short a path as possible.
19	18	16	9	DMINUS	I/O/Z	Z	**USB D– Signal**. Connect to the USB D– signal.
18	17	15	8	DPLUS	I/O/Z	Z	**USB D+ Signal**. Connect to the USB D+ signal.
94				A0	Output	L	**8051 Address Bus**. This bus is driven at all times. When the 8051 is addressing internal RAM it reflects the internal address.
95				A1	Output	L	
96				A2	Output	L	
97				A3	Output	L	
117				A 4	Output	L	
118				A 5	Output	L	
119				A 6	Output	L	
120				A 7	Output	L	
126				A 8	Output	L	
127				A 9	Output	L	
128				A 10	Output	L	
21				A11	Output	L	
22				A12	Output	L	
23				A13	Output	L	
24				A14	Output	L	
25				A15	Output	L	
59				D0	I/O/Z	Z	**8051 Data Bus**. This bidirectional bus is high-impedance when inactive, input for bus reads, and output for bus writes. The data bus is used for external 8051 program and data memory. The data bus is active only for external bus accesses, and is driven LOW in suspend.
60				D1	I/O/Z	Z	
61				D2	I/O/Z	Z	
62				D3	I/O/Z	Z	
63				D4	I/O/Z	Z	
86				D5	I/O/Z	Z	
87				D6	I/O/Z	Z	
88				D7	I/O/Z	Z	
39				PSEN#	Output	H	**Program Store Enable**. This active-LOW signal indicates an 8051 code fetch from external memory. It is active for program memory fetches from 0x2000–0xFFFF when the EA pin is LOW, or from 0x0000–0xFFFF when the EA pin is HIGH.
34	28			BKPT	Output	L	**Breakpoint**. This pin goes active (HIGH) when the 8051 address bus matches the BPADDRH/L registers and breakpoints are enabled in the BREAKPT register (BPEN = 1). If the BPPULSE bit in the BREAKPT register is HIGH, this signal pulses HIGH for eight 12-/24-/48-MHz clocks. If the BPPULSE bit is LOW, the signal remains HIGH until the 8051 clears the BREAK bit (by writing 1 to it) in the BREAKPT register.
99	77	49	42	RESET#	Input	N/A	**Active LOW Reset**. Resets the entire chip. This pin is normally tied to V_{CC} through a 100K resistor, and to GND through a 0.1-µF capacitor.

Note:

5. Unused inputs should not be left floating. Tie either HIGH or LOW as appropriate. Outputs should only be pulled up or down to ensure signals at power-up and in standby.

PIN DESCRIPTIONS OF IC CY7C68013

Table 4-1. FX2 Pin Descriptions[5] (continued)

128 TQFP	100 TQFP	56 SSOP	56 QFN	Name	Type	Default	Description
35				EA	Input	N/A	**External Access**. This pin determines where the 8051 fetches code between addresses 0x0000 and 0x1FFF. If EA = 0 the 8051 fetches this code from its internal RAM. IF EA = 1 the 8051 fetches this code from external memory.
12	11	12	5	XTALIN	Input	N/A	**Crystal Input**. Connect this signal to a 24-MHz parallel-resonant, fundamental mode crystal and 20-pF capacitor to GND. It is also correct to drive XTALIN with an external 24 MHz square wave derived from another clock source.
11	10	11	4	XTALOUT	Output	N/A	**Crystal Output**. Connect this signal to a 24-MHz parallel-resonant, fundamental mode crystal and 20-pF capacitor to GND. If an external clock is used to drive XTALIN, leave this pin open.
1	100	5	54	CLKOUT	O/Z	12 MHz	12-, 24- or 48-MHz clock, phase locked to the 24-MHz input clock. The 8051 defaults to 12-MHz operation. The 8051 may tri-state this output by setting CPUCS.1 = 1.
Port A							
82	67	40	33	PA0 or INT0#	I/O/Z	I (PA0)	Multiplexed pin whose function is selected by: PORTACFG.0 **PA0** is a bidirectional IO port pin. **INT0#** is the active-LOW 8051 INT0 interrupt input signal, which is either edge triggered (IT0 = 1) or level triggered (IT0 = 0).
83	68	41	34	PA1 or INT1#	I/O/Z	I (PA1)	Multiplexed pin whose function is selected by: PORTACFG.1 **PA1** is a bidirectional IO port pin. **INT1#** is the active-LOW 8051 INT1 interrupt input signal, which is either edge triggered (IT1 = 1) or level triggered (IT1 = 0).
84	69	42	35	PA2 or SLOE	I/O/Z	I (PA2)	Multiplexed pin whose function is selected by two bits: IFCONFIG[1:0]. **PA2** is a bidirectional IO port pin. **SLOE** is an input-only output enable with programmable polarity (FIFOPOLAR.4) for the slave FIFOs connected to FD[7..0] or FD[15..0].
85	70	43	36	PA3 or WU2	I/O/Z	I (PA3)	Multiplexed pin whose function is selected by: WAKEUP.7 and OEA.3 **PA3** is a bidirectional I/O port pin. **WU2** is an alternate source for **USB Wakeup,** enabled by WU2EN bit (WAKEUP.1) and polarity set by WU2POL (WAKEUP.4). If the 8051 is in suspend and WU2EN = 1, a transition on this pin starts up the oscillator and interrupts the 8051 to allow it to exit the suspend mode. Asserting this pin inhibits the chip from suspending, if WU2EN=1.
89	71	44	37	PA4 or FIFOADR0	I/O/Z	I (PA4)	Multiplexed pin whose function is selected by: IFCONFIG[1..0]. **PA4** is a bidirectional I/O port pin. **FIFOADR0** is an input-only address select for the slave FIFOs connected to FD[7..0] or FD[15..0].
90	72	45	38	PA5 or FIFOADR1	I/O/Z	I (PA5)	Multiplexed pin whose function is selected by: IFCONFIG[1..0]. **PA5** is a bidirectional I/O port pin. **FIFOADR1** is an input-only address select for the slave FIFOs connected to FD[7..0] or FD[15..0].
91	73	46	39	PA6 or PKTEND	I/O/Z	I (PA6)	Multiplexed pin whose function is selected by the IFCONFIG[1:0] bits. **PA6** is a bidirectional I/O port pin. **PKTEND** is an input-only packet end with programmable polarity (FIFOPOLAR.5) for the slave FIFOs connected to FD[7..0] or FD[15..0].

PIN DESCRIPTIONS OF IC CY7C68013

Table 4-1. FX2 Pin Descriptions[5] (continued)

128 TQFP	100 TQFP	56 SSOP	56 QFN	Name	Type	Default	Description
92	74	47	40	PA7 or FLAGD or SLCS#	I/O/Z	I (PA7)	Multiplexed pin whose function is selected by the IFCONFIG[1:0] and PORTACFG.7 bits. **PA7** is a bidirectional I/O port pin. **FLAGD** is a programmable slave-FIFO output status flag signal. **SLCS#** gates all other slave FIFO enable/strobes
Port B							
44	34	25	18	PB0 or FD[0]	I/O/Z	I (PB0)	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **PB0** is a bidirectional I/O port pin. **FD[0]** is the bidirectional FIFO/GPIF data bus.
45	35	26	19	PB1 or FD[1]	I/O/Z	I (PB1)	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **PB1** is a bidirectional I/O port pin. **FD[1]** is the bidirectional FIFO/GPIF data bus.
46	36	27	20	PB2 or FD[2]	I/O/Z	I (PB2)	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **PB2** is a bidirectional I/O port pin. **FD[2]** is the bidirectional FIFO/GPIF data bus.
47	37	28	21	PB3 or TXD1 or FD[3]	I/O/Z	I (PB3)	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **PB3** is a bidirectional I/O port pin. **FD[3]** is the bidirectional FIFO/GPIF data bus.
54	44	29	22	PB4 or FD[4]	I/O/Z	I (PB4)	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **PB4** is a bidirectional I/O port pin. **FD[4]** is the bidirectional FIFO/GPIF data bus.
55	45	30	23	PB5 or FD[5]	I/O/Z	I (PB5)	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **PB5** is a bidirectional I/O port pin. **FD[5]** is the bidirectional FIFO/GPIF data bus.
56	46	31	24	PB6 or FD[6]	I/O/Z	I (PB6)	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **PB6** is a bidirectional I/O port pin. **FD[6]** is the bidirectional FIFO/GPIF data bus.
57	47	32	25	PB7 or FD[7]	I/O/Z	I (PB7)	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **PB7** is a bidirectional I/O port pin. **FD[7]** is the bidirectional FIFO/GPIF data bus.
PORT C							
72	57			PC0 or GPIFADR0	I/O/Z	I (PC0)	Multiplexed pin whose function is selected by PORTCCFG.0 **PC0** is a bidirectional I/O port pin. **GPIFADR0** is a GPIF address output pin.
73	58			PC1 or GPIFADR1	I/O/Z	I (PC1)	Multiplexed pin whose function is selected by PORTCCFG.1 **PC1** is a bidirectional I/O port pin. **GPIFADR1** is a GPIF address output pin.
74	59			PC2 or GPIFADR2	I/O/Z	I (PC2)	Multiplexed pin whose function is selected by PORTCCFG.2 **PC2** is a bidirectional I/O port pin. **GPIFADR2** is a GPIF address output pin.
75	60			PC3 or GPIFADR3	I/O/Z	I (PC3)	Multiplexed pin whose function is selected by PORTCCFG.3 **PC3** is a bidirectional I/O port pin. **GPIFADR3** is a GPIF address output pin.
76	61			PC4 or GPIFADR4	I/O/Z	I (PC4)	Multiplexed pin whose function is selected by PORTCCFG.4 **PC4** is a bidirectional I/O port pin. **GPIFADR4** is a GPIF address output pin.

PIN DESCRIPTIONS OF IC CY7C68013

Table 4-1. FX2 Pin Descriptions[5] (continued)

128 TQFP	100 TQFP	56 SSOP	56 QFN	Name	Type	Default	Description
77	62			PC5 or GPIFADR5	I/O/Z	I (PC5)	Multiplexed pin whose function is selected by PORTCCFG.5 **PC5** is a bidirectional I/O port pin. **GPIFADR5** is a GPIF address output pin.
78	63			PC6 or GPIFADR6	I/O/Z	I (PC6)	Multiplexed pin whose function is selected by PORTCCFG.6 **PC6** is a bidirectional I/O port pin. **GPIFADR6** is a GPIF address output pin.
79	64			PC7 or GPIFADR7	I/O/Z	I (PC7)	Multiplexed pin whose function is selected by PORTCCFG.7 **PC7** is a bidirectional I/O port pin. **GPIFADR7** is a GPIF address output pin.
PORT D							
102	80	52	45	PD0 or FD[8]	I/O/Z	I (PD0)	Multiplexed pin whose function is selected by the IFCONFIG[1..0] and EPxFIFCFG.0 (wordwide) bits. **FD[8]** is the bidirectional FIFO/GPIF data bus.
103	81	53	46	PD1 or FD[9]	I/O/Z	I (PD1)	Multiplexed pin whose function is selected by the IFCONFIG[1..0] and EPxFIFCFG.0 (wordwide) bits. **FD[9]** is the bidirectional FIFO/GPIF data bus.
104	82	54	47	PD2 or FD[10]	I/O/Z	I (PD2)	Multiplexed pin whose function is selected by the IFCONFIG[1..0] and EPxFIFCFG.0 (wordwide) bits. **FD[10]** is the bidirectional FIFO/GPIF data bus.
105	83	55	48	PD3 or FD[11]	I/O/Z	I (PD3)	Multiplexed pin whose function is selected by the IFCONFIG[1..0] and EPxFIFCFG.0 (wordwide) bits. **FD[11]** is the bidirectional FIFO/GPIF data bus.
121	95	56	49	PD4 or FD[12]	I/O/Z	I (PD4)	Multiplexed pin whose function is selected by the IFCONFIG[1..0] and EPxFIFCFG.0 (wordwide) bits. **FD[12]** is the bidirectional FIFO/GPIF data bus.
122	96	1	50	PD5 or FD[13]	I/O/Z	I (PD5)	Multiplexed pin whose function is selected by the IFCONFIG[1..0] and EPxFIFCFG.0 (wordwide) bits. **FD[13]** is the bidirectional FIFO/GPIF data bus.
123	97	2	51	PD6 or FD[14]	I/O/Z	I (PD6)	Multiplexed pin whose function is selected by the IFCONFIG[1..0] and EPxFIFCFG.0 (wordwide) bits. **FD[14]** is the bidirectional FIFO/GPIF data bus.
124	98	3	52	PD7 or FD[15]	I/O/Z	I (PD7)	Multiplexed pin whose function is selected by the IFCONFIG[1..0] and EPxFIFCFG.0 (wordwide) bits. **FD[15]** is the bidirectional FIFO/GPIF data bus.
Port E							
108	86			PE0 or T0OUT	I/O/Z	I (PE0)	Multiplexed pin whose function is selected by the PORTECFG.0 bit. **PE0** is a bidirectional I/O port pin. **T0OUT** is an active-HIGH signal from 8051 Timer-counter0. T0OUT outputs a high level for one CLKOUT clock cycle when Timer0 overflows. If Timer0 is operated in Mode 3 (two separate timer/counters), T0OUT is active when the low byte timer/counter overflows.
109	87			PE1 or T1OUT	I/O/Z	I (PE1)	Multiplexed pin whose function is selected by the PORTECFG.1 bit. **PE1** is a bidirectional I/O port pin. **T1OUT** is an active-HIGH signal from 8051 Timer-counter1. T1OUT outputs a high level for one CLKOUT clock cycle when Timer1 overflows. If Timer1 is operated in Mode 3 (two separate timer/counters), T1OUT is active when the low byte timer/counter overflows.
110	88			PE2 or T2OUT	I/O/Z	I (PE2)	Multiplexed pin whose function is selected by the PORTECFG.2 bit. **PE2** is a bidirectional I/O port pin. **T2OUT** is the active-HIGH output signal from 8051 Timer2. T2OUT is active (HIGH) for one clock cycle when Timer/Counter 2 overflows.

PIN DESCRIPTIONS OF IC CY7C68013

Table 4-1. FX2 Pin Descriptions[5] (continued)

128 TQFP	100 TQFP	56 SSOP	56 QFN	Name	Type	Default	Description
111	89			PE3 or RXD0OUT	I/O/Z	I (PE3)	Multiplexed pin whose function is selected by the PORTECFG.3 bit. **PE3** is a bidirectional I/O port pin. **RXD0OUT** is an active-HIGH signal from 8051 UART0. If RXD0OUT is selected and UART0 is in Mode 0, this pin provides the output data for UART0 only when it is in sync mode. Otherwise it is a 1.
112	90			PE4 or RXD1OUT	I/O/Z	I (PE4)	Multiplexed pin whose function is selected by the PORTECFG.4 bit. **PE4** is a bidirectional I/O port pin. **RXD1OUT** is an active-HIGH output from 8051 UART1. When RXD1OUT is selected and UART1 is in Mode 0, this pin provides the output data for UART1 only when it is in sync mode. In Modes 1, 2, and 3, this pin is HIGH.
113	91			PE5 or INT6	I/O/Z	I (PE5)	Multiplexed pin whose function is selected by the PORTECFG.5 bit. **PE5** is a bidirectional I/O port pin. **INT6** is the 8051 INT5 interrupt request input signal. The INT6 pin is edge-sensitive, active HIGH.
114	92			PE6 or T2EX	I/O/Z	I (PE6)	Multiplexed pin whose function is selected by the PORTECFG.6 bit. **PE6** is a bidirectional I/O port pin. **T2EX** is an active-high input signal to the 8051 Timer2. T2EX reloads timer 2 on its falling edge. T2EX is active only if the EXEN2 bit is set in T2CON.
115	93			PE7 or GPIFADR8	I/O/Z	I (PE7)	Multiplexed pin whose function is selected by the PORTECFG.7 bit. **PE7** is a bidirectional I/O port pin. **GPIFADR8** is a GPIF address output pin.
4	3	8	1	RDY0 or SLRD	Input	N/A	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **RDY0** is a GPIF input signal. **SLRD** is the input-only read strobe with programmable polarity (FIFOPOLAR.3) for the slave FIFOs connected to FDI[7..0] or FDI[15..0].
5	4	9	2	RDY1 or SLWR	Input	N/A	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **RDY1** is a GPIF input signal. **SLWR** is the input-only write strobe with programmable polarity (FIFOPOLAR.2) for the slave FIFOs connected to FDI[7..0] or FDI[15..0].
6	5			RDY2	Input	N/A	**RDY2** is a GPIF input signal.
7	6			RDY3	Input	N/A	**RDY3** is a GPIF input signal.
8	7			RDY4	Input	N/A	**RDY4** is a GPIF input signal.
9	8			RDY5	Input	N/A	**RDY5** is a GPIF input signal.
69	54	36	29	CTL0 or FLAGA	Output	H	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **CTL0** is a GPIF control output. **FLAGA** is a programmable slave-FIFO output status flag signal. Defaults to programmable for the FIFO selected by the FIFOADR[1:0] pins.
70	55	37	30	CTL1 or FLAGB	Output	H	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **CTL1** is a GPIF control output. **FLAGB** is a programmable slave-FIFO output status flag signal. Defaults to FULL for the FIFO selected by the FIFOADR[1:0] pins.

PIN DESCRIPTIONS OF IC CY7C68013

Table 4-1. FX2 Pin Descriptions[5] (continued)

128 TQFP	100 TQFP	56 SSOP	56 QFN	Name	Type	Default	Description
71	56	38	31	CTL2 or FLAGC	Output	H	Multiplexed pin whose function is selected by the following bits: IFCONFIG[1..0]. **CTL2** is a GPIF control output. **FLAGC** is a programmable slave-FIFO output status flag signal. Defaults to EMPTY for the FIFO selected by the FIFOADR[1:0] pins.
66	51			CTL3	Output	H	**CTL3** is a GPIF control output.
67	52			CTL4	Output	H	**CTL4** is a GPIF control output.
98	76			CTL5	Output	H	**CTL5** is a GPIF control output.
32	26	20	13	IFCLK	I/O/Z	Z	Interface Clock, used for synchronously clocking data into or out of the slave FIFOs. IFCLK also serves as a timing reference for all slave FIFO control signals and GPIF. When internal clocking, IFCONFIG.7 = 1, is used the IFCLK pin can be configured to output 30/48 MHz by bits IFCONFIG.5 and IFCONFIG.6. IFCLK may be inverted, whether internally or externally sourced, by setting the bit IFCONFIG.4 =1.
28	22			INT4	Input	N/A	**INT4** is the 8051 INT4 interrupt request input signal. The INT4 pin is edge-sensitive, active HIGH.
106	84			INT5#	Input	N/A	**INT5#** is the 8051 INT5 interrupt request input signal. The INT5 pin is edge-sensitive, active LOW.
31	25			T2	Input	N/A	**T2** is the active-HIGH T2 input signal to 8051 Timer2, which provides the input to Timer2 when C/T2 = 1. When C/T2 = 0, Timer2 does not use this pin.
30	24			T1	Input	N/A	**T1** is the active-HIGH T1 signal for 8051 Timer1, which provides the input to Timer1 when C/T1 is 1. When C/T1 is 0, Timer1 does not use this bit.
29	23			T0	Input	N/A	**T0** is the active-HIGH T0 signal for 8051 Timer0, which provides the input to Timer0 when C/T0 is 1. When C/T0 is 0, Timer0 does not use this bit.
53	43			RXD1	Input	N/A	**RXD1**is an active-HIGH input signal for 8051 UART1, which provides data to the UART in all modes.
52	42			TXD1	Output	H	**TXD1**is an active-HIGH output pin from 8051 UART1, which provides the output clock in sync mode, and the output data in async mode.
51	41			RXD0	Input	N/A	**RXD0** is the active-HIGH RXD0 input to 8051 UART0, which provides data to the UART in all modes.
50	40			TXD0	Output	H	**TXD0** is the active-HIGH TXD0 output from 8051 UART0, which provides the output clock in sync mode, and the output data in async mode.
42				CS#	Output	H	**CS#** is the active-LOW chip select for external memory.
41	32			WR#	Output	H	**WR#** is the active-LOW write strobe output for external memory.
40	31			RD#	Output	H	**RD#** is the active-LOW read strobe output for external memory.
38				OE#	Output	H	**OE#** is the active-LOW output enable for external memory.
33	27	21	14	Reserved	Input	N/A	Reserved. Connect to ground.
101	79	51	44	WAKEUP	Input	N/A	**USB Wakeup**. If the 8051 is in suspend, asserting this pin starts up the oscillator and interrupts the 8051 to allow it to exit the suspend mode. Holding WAKEUP asserted inhibits the EZ-USB chip from suspending. This pin has programmable polarity (WAKEUP.4).

PIN DESCRIPTIONS OF IC CY7C68013

Table 4-1. FX2 Pin Descriptions[5] (continued)

128 TQFP	100 TQFP	56 SSOP	56 QFN	Name	Type	Default	Description
36	29	22	15	SCL	OD	Z	**Clock** for the **I²C-compatible interface.** Connect to V_{CC} with a 2.2K resistor, **even if no I²C-compatible peripheral is attached.**
37	30	23	16	SDA	OD	Z	**Data** for **I²C-compatible interface**. Connect to V_{CC} with a 2.2K resistor, **even if no I²C-compatible peripheral is attached.**
2	1	6	55	V_{CC}	Power	N/A	V_{CC}. Connect to 3.3V power source.
17	16	14	7	V_{CC}	Power	N/A	V_{CC}. Connect to 3.3V power source.
26	20	18	11	V_{CC}	Power	N/A	V_{CC}. Connect to 3.3V power source.
43	33	24	17	V_{CC}	Power	N/A	V_{CC}. Connect to 3.3V power source.
48	38	34	27	V_{CC}	Power	N/A	V_{CC}. Connect to 3.3V power source.
64	49	39	32	V_{CC}	Power	N/A	V_{CC}. Connect to 3.3V power source.
68	53	50	43	V_{CC}	Power	N/A	V_{CC}. Connect to 3.3V power source.
81	66			V_{CC}	Power	N/A	V_{CC}. Connect to 3.3V power source.
100	78			V_{CC}	Power	N/A	V_{CC}. Connect to 3.3V power source.
107	85			V_{CC}	Power	N/A	V_{CC}. Connect to 3.3V power source.
3	2	4	53	GND	Ground	N/A	Ground.
20	19	7	56	GND	Ground	N/A	Ground.
27	21	17	10	GND	Ground	N/A	Ground.
49	39	19	12	GND	Ground	N/A	Ground.
58	48	33	26	GND	Ground	N/A	Ground.
65	50	35	28	GND	Ground	N/A	Ground.
80	65	48	41	GND	Ground	N/A	Ground.
93	75			GND	Ground	N/A	Ground.
116	94			GND	Ground	N/A	Ground.
125	99			GND	Ground	N/A	Ground.
14	13			NC	N/A	N/A	No-connect. This pin must be left open.
15	14			NC	N/A	N/A	No-connect. This pin must be left open.
16	15			NC	N/A	N/A	No-connect. This pin must be left open.

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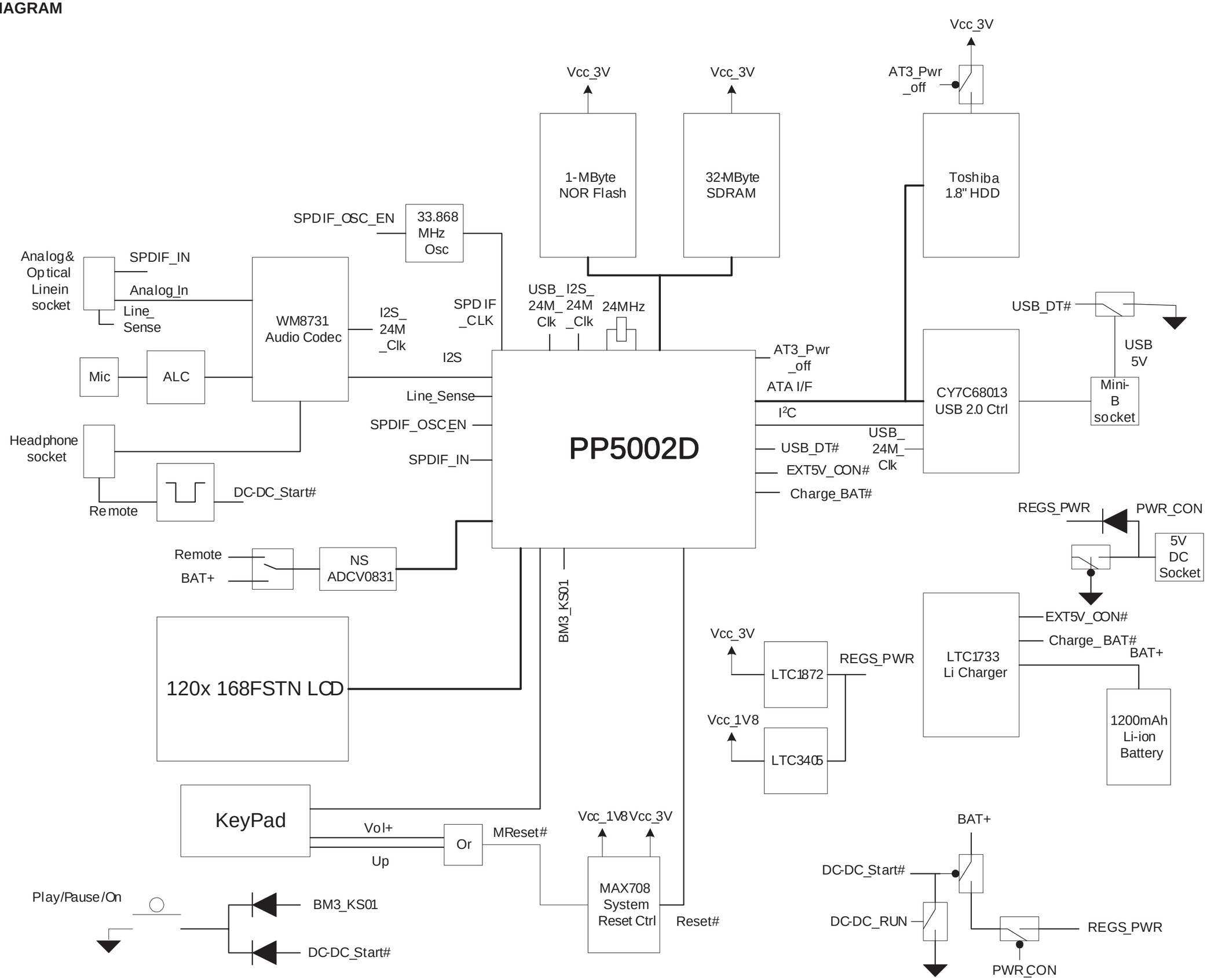
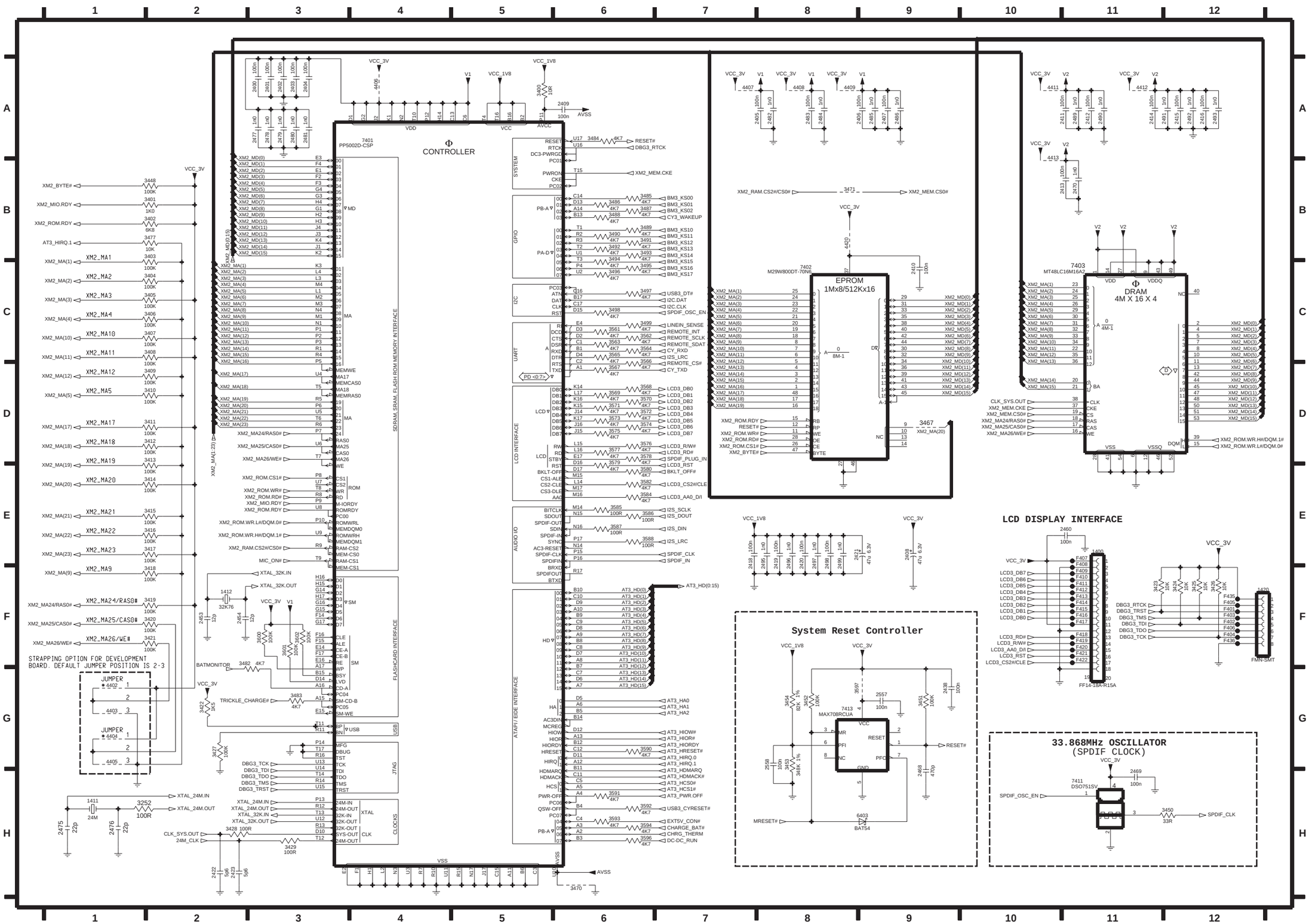
BLOCKDIAGRAM



4 - 1

MAIN BOARD - CIRCUIT DIAGRAM



1400 E11	3562 C6
1411 H1	3563 C6
1412 F2	3564 C6
1420 F12	3565 C6
2400 A3	3566 D6
2401 A3	3567 D6
2402 A3	3568 D6
2403 A3	3569 D6
2404 A3	3570 D6
2405 A8	3571 D6
2406 A9	3572 D6
2407 A9	3573 D6
2408 E9	3574 D6
2409 A6	3575 D6
2410 C9	3576 D6
2411 A11	3577 D6
2412 A11	3578 D6
2413 B11	3579 E6
2414 A11	3580 E6
2415 A12	3582 E6
2416 A12	3584 E6
2418 E7	3585 E6
2419 E8	3586 E6
2420 E8	3587 E6
2421 E8	3588 E6
2422 H2	3590 G6
2423 H2	3591 H6
2438 G9	3592 H6
2453 F2	3593 H6
2454 F2	3594 H6
2460 E11	3596 H6
2468 H9	3597 G9
2469 H11	3600 F3
2470 B11	3601 F3
2475 H1	3602 F3
2476 H1	4402 G1
2477 A3	4403 G1
2478 A3	4404 G1
2479 A3	4405 G1
2480 A3	4406 A4
2481 A3	4407 A7
2482 A8	4408 A8
2483 A8	4409 A8
2484 A8	4411 A10
2485 A9	4412 A11
2486 A9	4413 B10
2489 A11	4420 B8
2490 A11	6403 H9
2491 A12	7401 A4
2492 A12	7402 C8
2493 A12	7403 C11
2495 E8	7411 H11
2496 E8	7413 G8
2497 E8	F401 F12
2498 E8	F402 F12
2499 E8	F403 F12
2557 G9	F404 F12
2558 G8	F405 F12
3252 H1	F406 F12
3400 A5	F407 E11
3401 B2	F408 F11
3402 B2	F409 F11
3403 B2	F410 F11
3404 C2	F411 F11
3405 C2	F412 F11
3406 C2	F413 F11
3407 C2	F414 F11
3408 C2	F415 F11
3409 D2	F416 F11
3410 D2	F417 F11
3411 D2	F418 F11
3412 D2	F419 F11
3413 D2	F420 F11
3414 E2	F421 F11
3415 E2	F422 F11
3416 E2	F435 F12
3417 E2	F436 F12
3418 F2	
3419 F2	
3420 F2	
3421 F2	
3422 G2	
3423 F11	
3424 F12	
3425 F12	
3426 F12	
3427 G2	
3428 H2	
3429 H3	
3448 B2	
3450 H12	
3451 G9	
3452 G8	
3453 G8	
3454 G8	
3467 D9	
3470 H6	
3471 B8	
3477 B2	
3482 F2	
3483 G3	
3484 A6	
3485 B6	
3486 B6	
3487 B6	
3488 B6	
3489 B6	
3490 B6	
3491 B6	
3492 B6	
3493 B6	
3494 C6	
3495 C6	
3496 C6	
3497 C6	
3498 C6	
3499 C6	
3561 C6	

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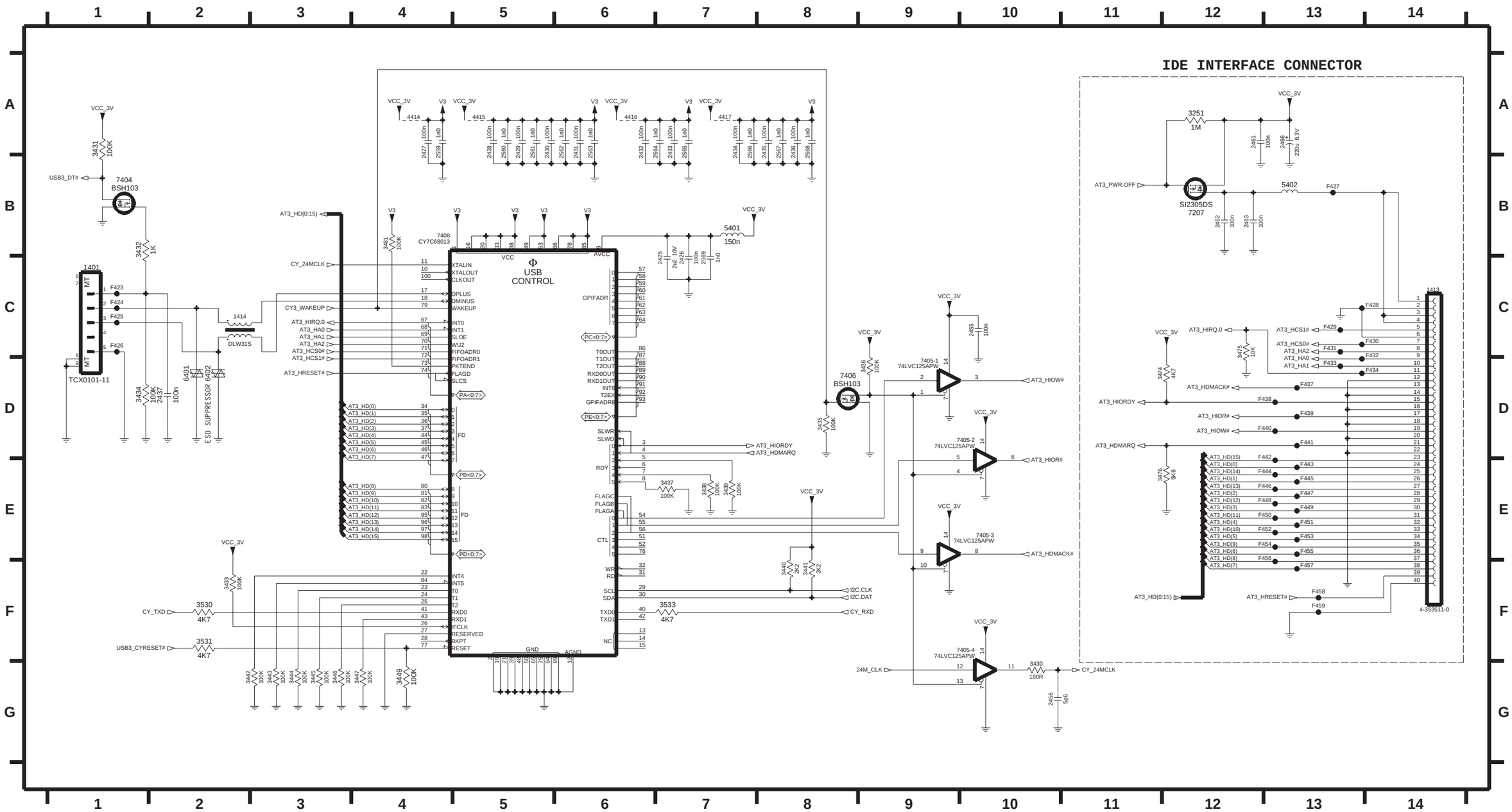
MAIN BOARD - CIRCUIT DIAGRAM

1401 C1	2430 A5	2455 C10	2561 A5	2569 C7	3436 D9	3444 G3	3481 B4	5401 B7	7405-3 E10	F427 B13	F437 D13	F445 E13	F453 E13
1413 C14	2431 A6	2456 G10	2562 A6	3251 A12	3437 E7	3445 G3	3530 F2	5402 B13	7405-4 F10	F428 C14	F438 D13	F446 E13	F454 E13
1414 C2	2432 A6	2461 A12	2563 A6	3430 G10	3438 E7	3446 G3	3531 F2	6401 D2	7406 D8	F429 C13	F439 D13	F447 E13	F455 E13
2425 C7	2433 A7	2462 B12	2564 A7	3431 A1	3439 E7	3447 G4	3533 F7	6402 D2	7408 B4	F430 C14	F440 D13	F448 E13	F456 F13
2426 C7	2434 A7	2463 B12	2565 A7	3432 B1	3440 F8	3449 G4	4414 A4	7207 B12	F423 C1	F431 C13	F441 D13	F449 E13	F457 F13
2427 A4	2435 A8	2466 A13	2566 A7	3433 F2	3441 F8	3474 D11	4415 A5	7404 B1	F424 C1	F432 D14	F442 E13	F450 E13	F458 F13
2428 A5	2436 A8	2559 A4	2567 A8	3434 D1	3442 G2	3475 C12	4416 A6	7405-1 D9	F425 C1	F433 D13	F443 E13	F451 E13	F459 F13
2429 A5	2437 D2	2560 A5	2568 A8	3435 D8	3443 G3	3476 E11	4417 A7	7405-2 D10	F426 C1	F434 D14	F444 E13	F452 E13	



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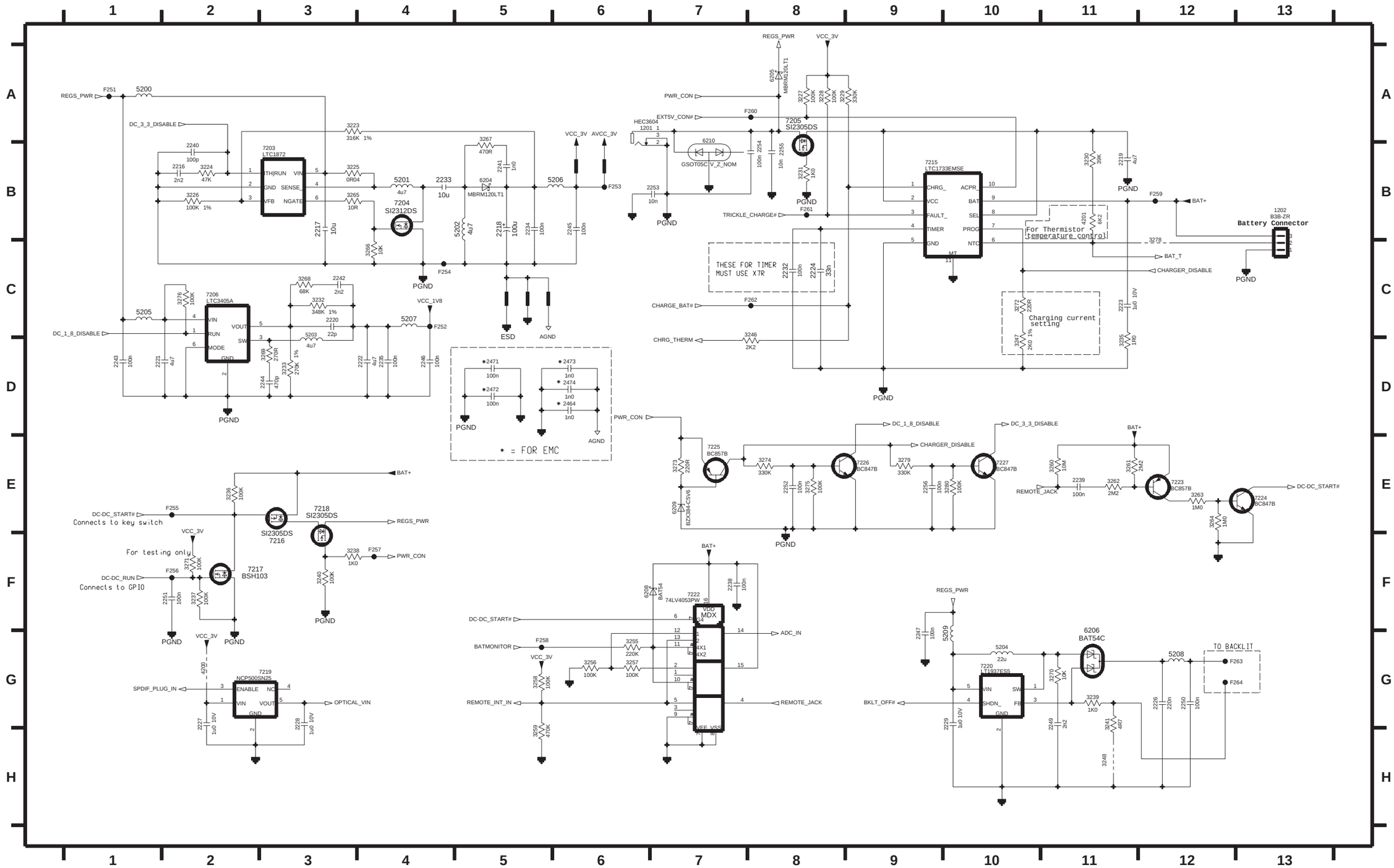
MAIN BOARD - CIRCUIT DIAGRAM

1201 A6	2222 D4	2233 B4	2243 D1	2252 E8	2473 D6	3229 A8	3238 F3	3256 G6	3264 E12	3272 C10	4200 G2	5206 B6	6209 E7	7217 F2	7226 E9	F257 F4
1202 B13	2223 C11	2234 B5	2244 D3	2253 B7	2474 D6	3230 B11	3239 G11	3257 G6	3265 B3	3273 E7	4201 B11	5207 C4	6210 B7	7218 E3	7227 E10	F258 G5
2216 B2	2224 C8	2235 D4	2245 B6	2254 B8	3223 A3	3231 B8	3240 F3	3258 G5	3266 C4	3274 E8	5200 A1	5208 G12	7203 B3	7219 G3	F251 A1	F259 B12
2217 B3	2226 G12	2238 F7	2246 D4	2255 B8	3224 B2	3232 C3	3241 G11	3259 H5	3267 A5	3275 E8	5201 B4	5209 G10	7204 B4	7220 G10	F252 C4	F260 A8
2218 B5	2227 G2	2239 E11	2247 G9	2256 E9	3225 B3	3233 D3	3246 C8	3260 E11	3268 C3	3276 C2	5202 B5	6204 B5	7205 A8	7222 F7	F253 B6	F261 B8
2219 B11	2228 G3	2240 B2	2249 G11	2464 D6	3226 B2	3235 D11	3247 D10	3261 E11	3269 D3	3278 C12	5203 C3	6205 A8	7206 C2	7223 E12	F254 C4	F262 C8
2220 C3	2229 G10	2241 B5	2250 G12	2471 D5	3227 A8	3236 E2	3248 H11	3262 E11	3270 G11	3279 E9	5204 G10	6206 F11	7215 B9	7224 E13	F255 E2	F263 G13
2221 D1	2232 C8	2242 C3	2251 F2	2472 D5	3228 A8	3237 F2	3255 G6	3263 E12	3271 F2	3280 E10	5205 C1	6208 F6	7216 F3	7225 E7	F256 F2	F264 G13



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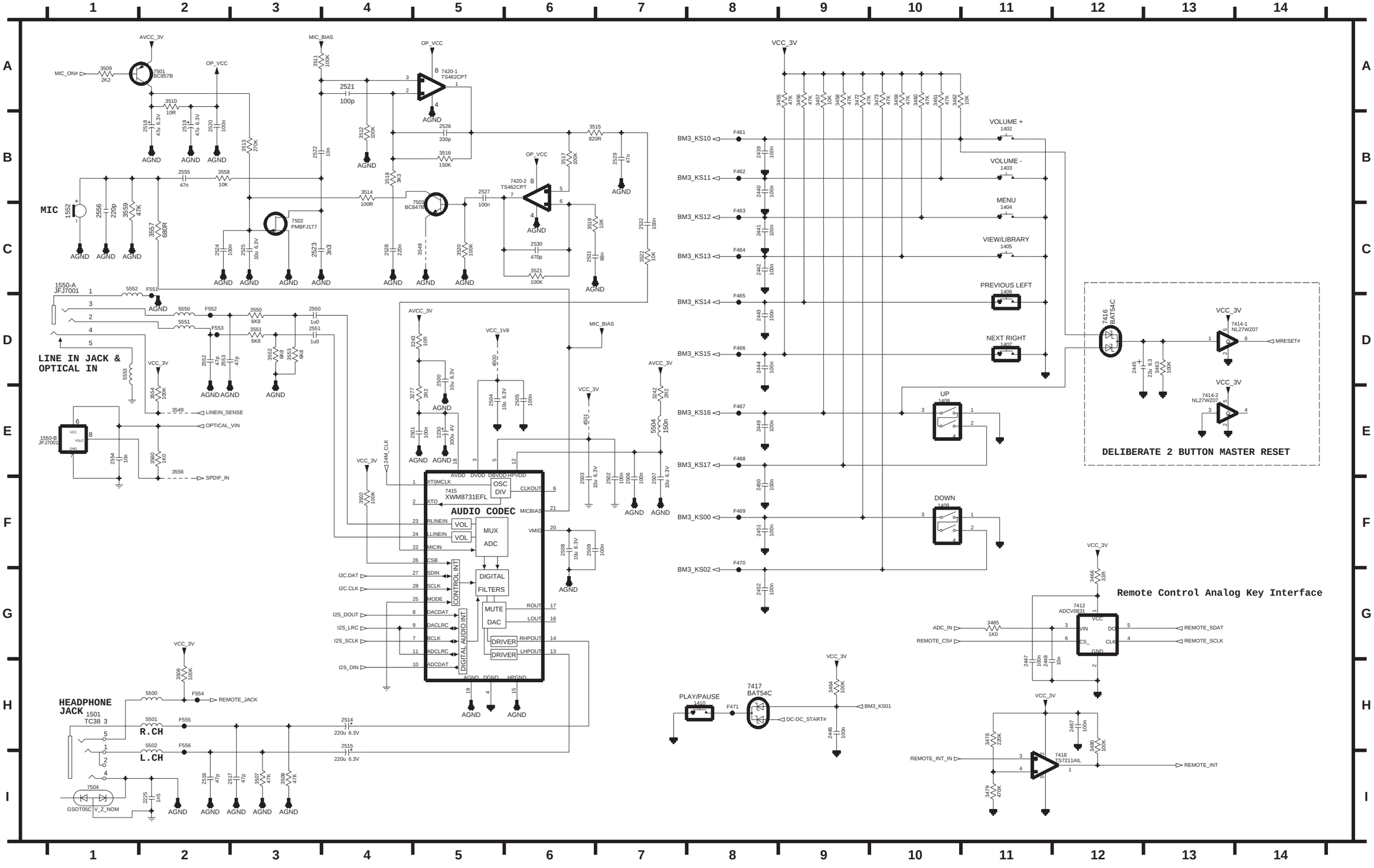
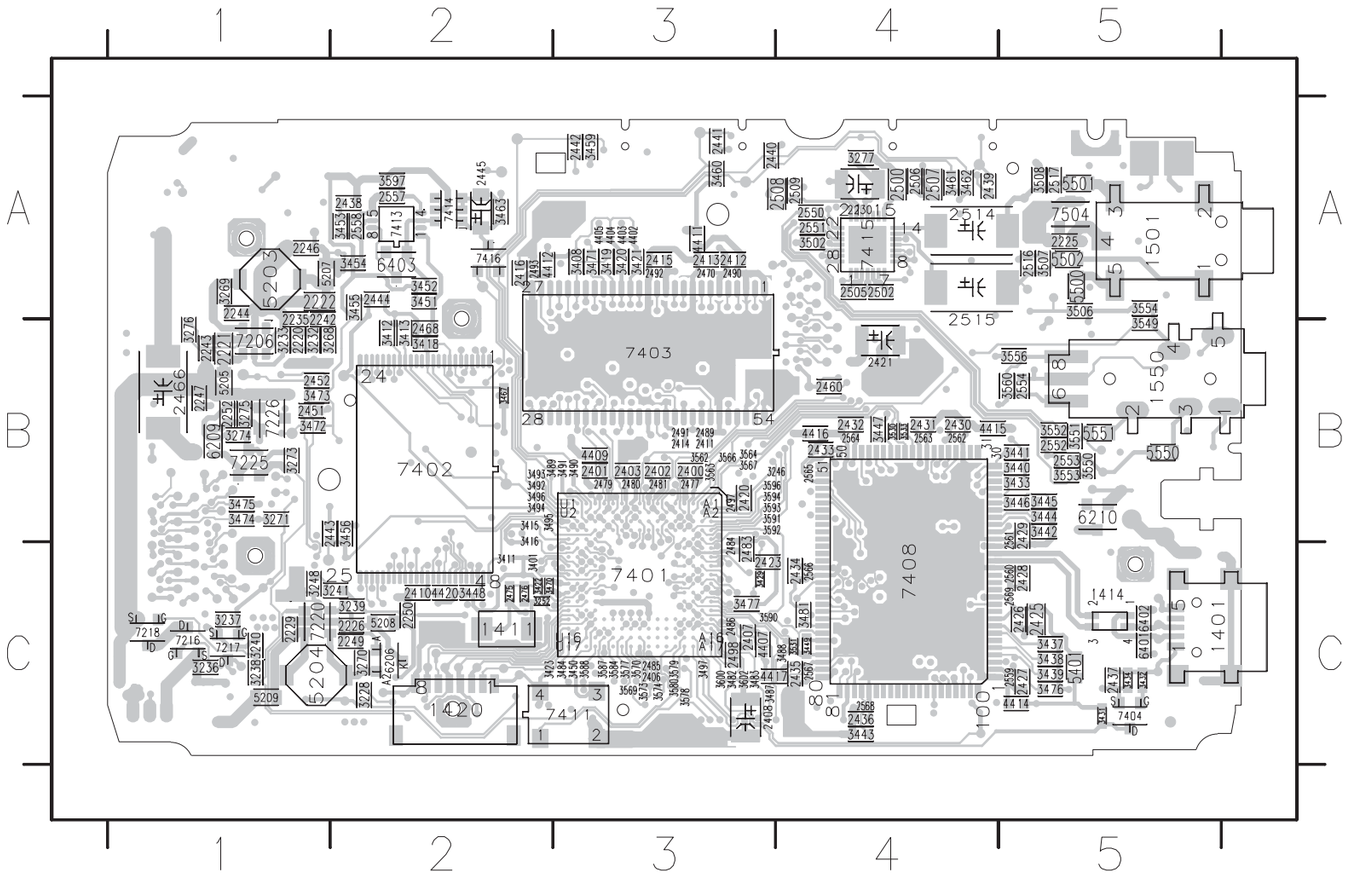
MAIN BOARD - CIRCUIT DIAGRAM

1402 B11	1409 F10	2230 E5	2445 D12	2452 G8	2505 E6	2516 I2	2523 C3	2530 C6	2554 E1	3456 A9	3463 D13	3479 I11	3510 A2	3517 B6	3549 E2	3557 C2	5501 H2	7412 G12	7420-1 A5	F462 B8	F469 F8	F555 H2
1403 B11	1410 H8	2439 B8	2446 H9	2467 H12	2506 F7	2517 I3	2524 C2	2531 C6	2555 B2	3457 A9	3464 H9	3480 H12	3511 A3	3518 B4	3550 D3	3558 B2	5502 H2	7414-1 D14	7420-2 B6	F463 C8	F470 F8	F556 H2
1404 C11	1501 H1	2440 B8	2447 H11	2500 D5	2507 F7	2518 B2	2525 C3	2532 C7	2556 C1	3458 A9	3465 G11	3502 F4	3512 B4	3519 C6	3551 D3	3559 C1	5504 E7	7414-2 E13	7501 A2	F464 C8	F471 H8	
1405 C11	1550-A C1	2441 C8	2448 H11	2501 E5	2508 F6	2519 B2	2526 B5	2550 D3	3242 E7	3459 A10	3466 G12	3506 H2	3513 B3	3520 C5	3552 D3	3560 E2	5550 D2	7415 F5	7502 C3	F465 D8	F551 C2	
1406 C11	1550-B E1	2442 C8	2449 E8	2502 F7	2509 F6	2520 B2	2527 B5	2551 D3	3243 D5	3460 A10	3472 A9	3507 I3	3514 B4	3521 C6	3553 D3	4500 D5	5551 D2	7416 D12	7503 C5	F466 D8	F552 D2	
1407 D11	1552 C1	2443 D8	2450 F8	2503 F6	2514 H4	2521 A4	2528 C4	2552 D2	3277 E5	3461 A10	3473 A10	3508 I3	3515 B6	3522 C7	3554 E2	4501 E6	5552 C1	7417 H8	7504 I1	F467 E8	F553 D2	
1408 E10	2225 I2	2444 D8	2451 F8	2504 E5	2515 H4	2522 B3	2529 B7	2553 D2	3455 A9	3462 A10	3478 H11	3509 A1	3516 B5	3548 C5	3556 E2	5500 H2	5553 D1	7418 I12	F461 B8	F468 E8	F554 H2	



4 - 5

MAIN BOARD - LAYOUT DIAGRAM
(COPPER SIDE VIEW)



1401	C5	2429	B5	2506	A4	3274	B1	3460	A3	3562	B3	5209	C1
1411	C2	2430	B4	2507	A4	3275	B1	3461	A4	3563	B3	5401	C5
1414	C5	2431	B4	2508	A4	3276	B1	3462	A4	3564	B3	5500	A5
1420	C2	2432	B4	2509	A4	3277	A4	3463	A2	3566	B3	5501	A5
1501	A5	2433	B4	2514	A4	3401	C2	3467	B2	3567	B3	5502	A5
1550	B5	2434	C4	2515	B4	3408	A3	3470	C2	3569	C3	5550	B5
2220	B1	2435	C4	2516	A5	3411	C2	3471	A3	3570	C3	5551	B5
2221	B1	2436	C4	2517	A5	3412	B2	3472	B1	3573	C3	6206	C2
2222	A1	2437	C5	2550	A4	3413	B2	3473	B1	3574	C3	6209	B1
2225	A5	2438	A2	2551	A4	3415	B2	3474	B1	3577	C3	6210	B5
2226	C2	2439	A4	2552	B5	3416	B2	3475	B1	3578	C3	6401	C5
2229	C1	2440	A3	2553	B5	3418	B2	3476	C5	3579	C3	6402	C5
2230	A4	2441	A3	2554	B5	3419	A3	3477	C3	3580	C3	6403	A2
2235	B1	2442	A3	2557	A2	3420	A3	3481	C4	3584	C3	7206	B1
2242	B1	2443	B1	2558	A2	3421	A3	3482	C3	3587	C3	7216	C1
2243	B1	2444	A2	2559	C5	3422	C2	3483	C3	3588	C3	7217	C1
2244	A1	2445	A2	2560	C5	3423	C2	3484	C3	3590	C3	7218	C1
2246	A1	2451	B1	2561	B5	3429	C3	3487	C3	3591	B3	7220	C1
2247	B1	2452	B1	2562	B4	3431	C5	3488	C4	3592	B3	7225	B1
2249	C2	2460	B4	2563	B4	3432	C5	3489	B2	3593	B3	7226	B1
2250	C2	2466	B1	2564	B4	3433	B5	3490	B3	3594	B3	7401	C3
2252	B1	2468	B2	2565	B4	3434	C5	3491	B3	3596	B3	7402	B2
2400	B3	2470	A3	2566	C4	3437	C5	3492	B2	3597	A2	7403	B3
2401	B3	2475	C2	2567	C4	3438	C5	3493	B2	3600	C3	7404	C5
2402	B3	2476	C2	2568	C4	3439	C5	3494	B2	3602	C3	7408	C4
2403	B3	2477	B3	2569	C5	3440	B5	3495	B2	4402	A3	7411	C3
2406	C3	2479	B3	3228	C2	3441	B5	3496	B2	4403	A3	7413	A2
2407	C3	2480	B3	3232	B1	3442	B5	3497	C3	4404	A3	7414	A2
2408	C3	2481	B3	3233	B1	3443	C4	3502	A4	4405	A3	7415	A4
2410	C2	2483	C3	3236	C1	3444	B5	3506	A5	4407	C3	7416	A2
2411	B3	2484	C3	3237	C1	3445	B5	3507	A5	4409	B3	7504	A5
2412	A3	2485	C3	3238	C1	3446	B5	3508	A5	4411	A3		
2413	A3	2486	C3	3239	C2	3447	B4	3530	B4	4412	A2		
2414	B3	2489	B3	3240	C1	3448	C2	3531	C4	4414	C5		
2415	A3	2490	A3	3241	C2	3449	C4	3533	B4	4415	B4		
2416	A2	2491	B3	3246	B4	3450	C3	3549	B5	4416	B4		
2420	B3	2492	A3	3248	C1	3451	A2	3550	B5	4417	C3		
2421	B4	2493	A2	3252	C2	3452	A2	3551	B5	4420	C2		
2423	C3	2497	B3	3268	B1	3453	A2	3552	B5	5203	A1		
2425	C5	2498	C3	3269	A1	3454	A2	3553	B5	5204	C1		
2426	C5	2500	A4	3270	C2	3455	A2	3554	A5	5205	B1		
2427	C5	2502	A4	3271	B1	3456	B2	3556	B5	5207	A1		
2428	C5	2505	A4	3273	B1	3459	A3	3560	B5	5208	C2		

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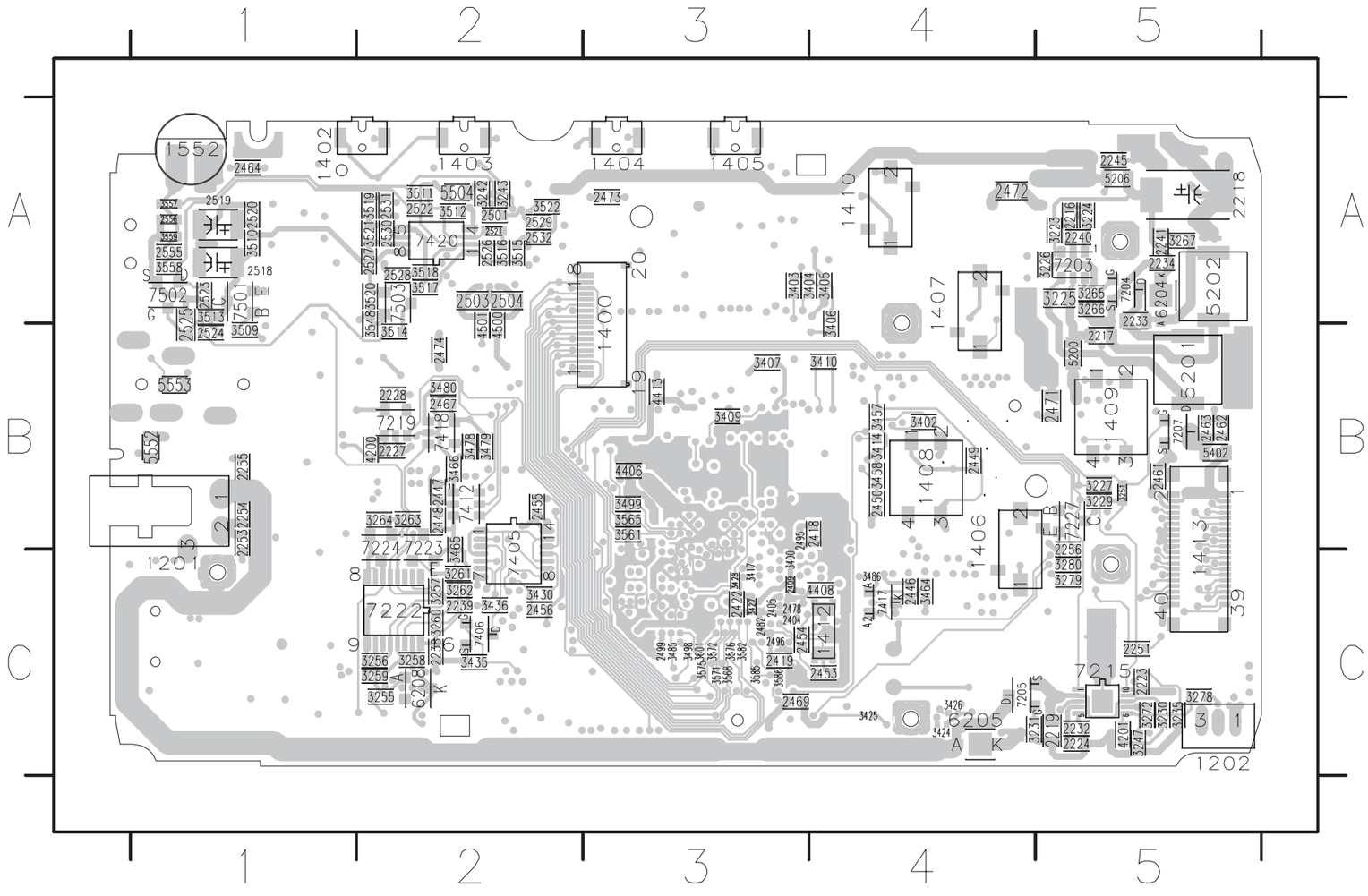
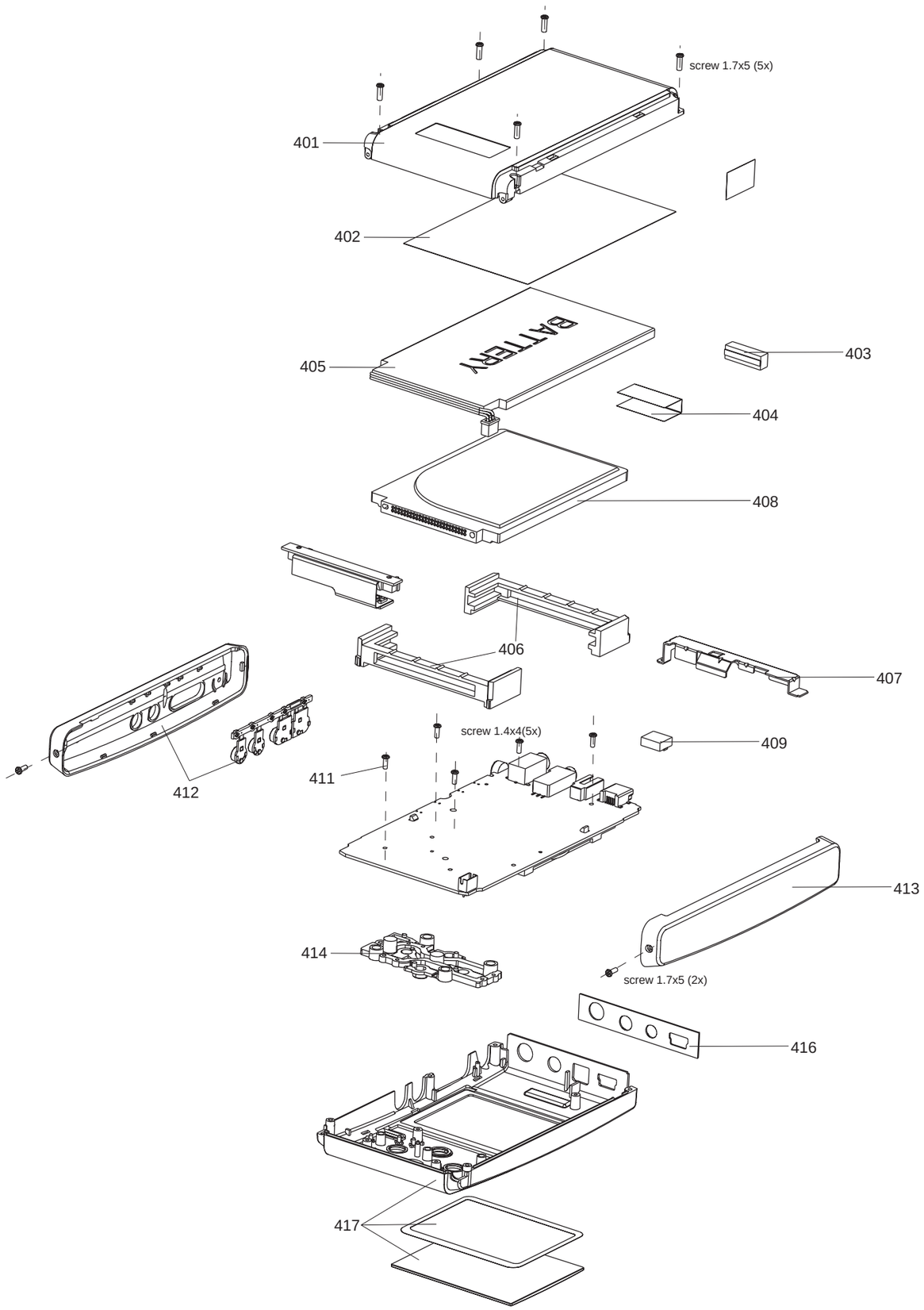
MAIN BOARD - LAYOUT DIAGRAM
(COMPONENT SIDE VIEW)



1201	C1	2447	B2	3223	A5	3426	C4	3582	C3
1202	C5	2448	B2	3224	A5	3427	C3	3585	C3
1400	B3	2449	B4	3225	A5	3428	C3	3586	C3
1402	A1	2450	B4	3226	A5	3430	C2	3601	C3
1403	A2	2453	C4	3227	B5	3435	C2	4200	B2
1404	A3	2454	C3	3229	B5	3436	C2	4201	C5
1405	A3	2455	B2	3230	C5	3457	B4	4406	B3
1406	B4	2456	C2	3231	C4	3458	B4	4408	C4
1407	A4	2461	B5	3235	C5	3464	C4	4413	B3
1408	B4	2462	B5	3242	A2	3465	C2	4501	B2
1409	B5	2463	B5	3243	A2	3466	B2	4501	B2
1410	A4	2464	A1	3247	C5	3478	B2	5200	B5
1412	C4	2467	B2	3251	B5	3479	B2	5201	B5
1413	B5	2469	C3	3255	C2	3480	B2	5202	A5
1552	A1	2471	B5	3256	C2	3485	C3	5206	A5
2216	A5	2472	A4	3257	C2	3486	C4	5402	B5
2217	B5	2473	A3	3258	C2	3498	C3	5504	A2
2218	A5	2474	B2	3259	C2	3499	B3	5552	B1
2219	C5	2478	C3	3260	C2	3509	B1	5553	B1
2223	C5	2482	C3	3261	C2	3510	A1	6204	A5
2224	C5	2495	B3	3262	C2	3511	A2	6205	C4
2227	B2	2496	C3	3263	B2	3512	A2	6208	C2
2228	B2	2499	C3	3264	B2	3513	A1	7203	A5
2232	C5	2501	A2	3265	A5	3514	B2	7204	A5
2233	A5	2503	A2	3266	A5	3515	A2	7205	C4
2234	A5	2504	A2	3267	A5	3516	A2	7207	B5
2238	C2	2518	A1	3272	C5	3517	A2	7215	C5
2239	C2	2519	A1	3278	C5	3518	A2	7219	B2
2240	A5	2520	A1	3279	C5	3519	A2	7222	C2
2241	A5	2521	A2	3280	C5	3520	A2	7223	B2
2245	A5	2522	A2	3400	C3	3521	A2	7224	B2
2251	C5	2523	A1	3402	B4	3522	A2	7227	B5
2253	B1	2524	B1	3403	A3	3548	B2	7405	C2
2254	B1	2525	B1	3404	A3	3557	A1	7406	C2
2255	B1	2526	A2	3405	A4	3558	A1	7412	B2
2256	B5	2527	A2	3406	B4	3559	A1	7417	C4
2404	C3	2528	A2	3407	B3	3561	B3	7418	B2
2405	C3	2529	A2	3409	B3	3565	B3	7420	A2
2409	C3	2530	A2	3410	B4	3568	C3	7501	A1
2418	B4	2531	A2	3414	B4	3571	C3	7502	A1
2419	C3	2532	A2	3417	C3	3572	C3	7503	A2
2422	C3	2555	A1	3424	C4	3575	C3		
2446	C4	2556	A1	3425	C4	3576	C3		

EXPLODED VIEW DIAGRAM - CABINET



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MECHANICAL PARTSLIST - CABINET

401	3140 117 68471	CAB-REAR PRE-ASSY HDD100
401	3140 117 72211	CAB-REAR PRE-ASSY HDD120
402	3140 113 23831	INSULATION BATTERY-PC HDD100
403	3140 113 10711	FELT-CONDUCTIVE HDD100
404	3140 113 23891	COPPER FOIL HDD100
405	3140 110 51971	BATTERY PACK 1200MAH
406	3140 114 49801	DAMPER
407	3140 111 22811	CONNECTOR BRACKET
408	2822 062 41019	HARD DISK 15GB (HDD100)
408	2822 062 00037	HARD DISK 20GB (HDD120)
409	3140 113 10681	FELT-USB HDD100
411	3103 300 41590	SCREW-P4-1.4X4-NI
412	3140 117 67961	CAP-LEFT-LAC-HDD100
413	3140 117 67711	CAP-RIGHT-ASSY-HDD100
414	3140 114 49781	KEYSET-FRONT
416	3140 111 60641	PLATE-SOCKET
417	3140 117 67691	FRONT-CABINET-ASSY-HDD100

Note: Only these parts mentioned in the list are normal service parts.

ELECTRICAL PARTSLIST - MIAN BOARD

- MISCELLANEOUS -

1001	2822 062 41019	HARD DISK
1002	3140 110 51971	BATTEY PACK 1200MAH
1003	3140 110 51902	LCD DISPLAY
1201	2422 030 00394	SOCKET SUPP H 1P
1202	2422 025 11942	SOCKET FFC V 3P
1400	2422 025 18095	CONNECTOR H 18P
1401	2422 025 17684	SOCKET USB H 5P
1402	2422 128 03082	SWITCH-TACT
1403	2422 128 03082	SWITCH-TACT
1404	2422 128 03082	SWITCH-TACT
1405	2422 128 03082	SWITCH-TACT
1406	2422 128 03083	SWITCH-TACT
1407	2422 128 03083	SWITCH-TACT
1408	2422 128 03084	SWITCH-TACT
1409	2422 128 03084	SWITCH-TACT
1410	2422 128 03083	SWITCH-TACT
1411	2422 543 01343	CYSTAL
1412	2422 543 01311	CYSTAL
1413	2422 025 18015	CONNCTOR BM V 40P
1414	2422 549 44768	IND FXD SM EMI 100MHZ
1501	2422 026 05317	SOCKET PHONE H 1P
1552	2422 549 45267	MICROPHONE
8000	3140 110 22381	FPC 40P HDD-PCB

- CAPACITORS -

2216	4822 126 14238	2,2nF X7 50V
2217	2020 552 96637	10µF 10% X5 6,3V
2218	4822 124 12318	100µF 10V 20%
2219	2020 552 96674	4,7µF 10% X5 6,3V
2220	4822 122 33761	22pF 5% NP0 50V
2221	2020 552 96674	4,7µF 10% X5 6,3V
2222	2020 552 96674	4,7µF 10% X5 6,3V
2223	3198 017 41050	1µF Y5V 10V
2224	4822 126 14549	33nF 16V X7
2225	4822 126 14247	1,5nF X7 50V
2226	4822 126 13879	220nF +80-20% 16V
2227	3198 017 41050	1µF Y5V 10V
2228	3198 017 41050	1µF Y5V 10V
2229	3198 017 41050	1µF Y5V 10V
2230	3198 032 15190	100µF 20% 4V
2232	2238 586 59812	100nF +80-20% Y5V 50V
2233	2020 552 96637	10µF 10% X5 6,3V
2234	2238 586 59812	100nF +80-20% Y5V 50V
2235	2238 586 59812	100nF +80-20% Y5V 50V
2238	2238 586 59812	100nF +80-20% Y5V 50V
2239	2238 586 59812	100nF +80-20% Y5V 50V
2240	2020 552 94427	100pF 5% NP0 50V
2241	3198 016 31020	1nF NP0 25V
2242	4822 126 14238	2,2nF X7 50V
2243	2238 586 59812	100nF +80-20% Y5V 50V

- CAPACITORS -

2244	4822 126 13881	470pF 5% 50V
2245	2238 586 59812	100nF +80-20% Y5V 50V
2246	2238 586 59812	100nF +80-20% Y5V 50V
2247	2238 586 59812	100nF +80-20% Y5V 50V
2249	4822 126 14238	2,2nF X7 50V
2250	2238 586 59812	100nF +80-20% Y5V 50V
2251	2238 586 59812	100nF +80-20% Y5V 50V
2252	2238 586 59812	100nF +80-20% Y5V 50V
2253	5322 126 11583	10nF 10% X7 50V CE2
2254	2238 586 59812	100nF +80-20% Y5V 50V
2255	5322 126 11583	10nF 10% X7 50V CE2
2256	2238 586 59812	100nF +80-20% Y5V 50V
2400	2238 586 59812	100nF +80-20% Y5V 50V
2401	2238 586 59812	100nF +80-20% Y5V 50V
2402	2238 586 59812	100nF +80-20% Y5V 50V
2403	2238 586 59812	100nF +80-20% Y5V 50V
2404	3198 035 71040	100nF Y5V 16V
2405	3198 035 71040	100nF Y5V 16V
2406	3198 035 71040	100nF Y5V 16V
2407	2238 586 59812	100nF +80-20% Y5V 50V
2408	2022 009 00656	47µF 20% 6,3V
2409	3198 035 71040	100nF Y5V 16V
2410	2238 586 59812	100nF +80-20% Y5V 50V
2411	3198 035 71040	100nF Y5V 16V
2412	2238 586 59812	100nF +80-20% Y5V 50V
2413	2238 586 59812	100nF +80-20% Y5V 50V
2414	3198 035 71040	100nF Y5V 16V
2415	2238 586 59812	100nF +80-20% Y5V 50V
2416	2238 586 59812	100nF +80-20% Y5V 50V
2418	2238 586 59812	100nF +80-20% Y5V 50V
2419	2238 586 59812	100nF +80-20% Y5V 50V
2420	2238 586 59812	100nF +80-20% Y5V 50V
2421	2022 009 00656	47µF 20% 6,3V
2422	3198 016 35680	5,6pF 0,5% NP0 50V
2423	3198 016 35680	5,6pF 0,5% NP0 50V
2425	4822 126 14491	2,2µF 10V 0805
2426	2238 586 59812	100nF +80-20% Y5V 50V
2427	2238 586 59812	100nF +80-20% Y5V 50V
2428	2238 586 59812	100nF +80-20% Y5V 50V
2429	2238 586 59812	100nF +80-20% Y5V 50V
2430	2238 586 59812	100nF +80-20% Y5V 50V
2431	2238 586 59812	100nF +80-20% Y5V 50V
2432	2238 586 59812	100nF +80-20% Y5V 50V
2433	2238 586 59812	100nF +80-20% Y5V 50V
2434	2238 586 59812	100nF +80-20% Y5V 50V
2435	2238 586 59812	100nF +80-20% Y5V 50V
2436	2238 586 59812	100nF +80-20% Y5V 50V
2437	2238 586 59812	100nF +80-20% Y5V 50V
2438	2238 586 59812	100nF +80-20% Y5V 50V
2439	2238 586 59812	100nF +80-20% Y5V 50V

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ELECTRICAL PARTSLIST - MAIN BOARD

- CAPACITORS -

2440	2238 586 59812	100nF +80-20% Y5V 50V
2441	2238 586 59812	100nF +80-20% Y5V 50V
2442	2238 586 59812	100nF +80-20% Y5V 50V
2443	2238 586 59812	100nF +80-20% Y5V 50V
2444	2238 586 59812	100nF +80-20% Y5V 50V
2445	4822 124 11946	22µF 20% 16V
2446	2238 586 59812	100nF +80-20% Y5V 50V
2447	2238 586 59812	100nF +80-20% Y5V 50V
2448	5322 126 11583	10nF 10% X7 50V
2449	2238 586 59812	100nF +80-20% Y5V 50V
2450	2238 586 59812	100nF +80-20% Y5V 50V
2451	2238 586 59812	100nF +80-20% Y5V 50V
2452	2238 586 59812	100nF +80-20% Y5V 50V
2453	4822 126 11663	12pF
2454	4822 126 11663	12pF
2455	2238 586 59812	100nF +80-20% Y5V 50V
2456	3198 016 35680	5,6pF 0,5% NP0 50V
2460	2238 586 59812	100nF +80-20% Y5V 50V
2461	2238 586 59812	100nF +80-20% Y5V 50V
2462	2238 586 59812	100nF +80-20% Y5V 50V
2463	2238 586 59812	100nF +80-20% Y5V 50V
2464	3198 016 31020	1nF NP0 25V
2466	3198 032 28210	220µF 20% 6,3V
2467	2238 586 59812	100nF +80-20% Y5V 50V
2468	4822 126 13881	470pF 5% 50V
2469	2238 586 59812	100nF +80-20% Y5V 50V
2470	2020 552 96618	1nF 10% X7 50V
2473	3198 016 31020	1nF NP0 25V
2474	3198 016 31020	1nF NP0 25V
2475	4822 122 33761	22pF 5% NP0 50V
2476	4822 122 33761	22pF 5% NP0 50V
2477	2020 552 96618	1nF 10% X7 50V
2478	2020 552 96618	1nF 10% X7 50V
2479	2020 552 96618	1nF 10% X7 50V
2480	2020 552 96618	1nF 10% X7 50V
2481	2020 552 96618	1nF 10% X7 50V
2482	2020 552 96618	1nF 10% X7 50V
2483	2238 586 59812	100nF +80-20% Y5V 50V
2484	2020 552 96618	1nF 10% X7 50V
2485	2020 552 96618	1nF 10% X7 50V
2486	2020 552 96618	1nF 10% X7 50V
2489	2020 552 96618	1nF 10% X7 50V
2490	2020 552 96618	1nF 10% X7 50V
2491	2020 552 96618	1nF 10% X7 50V
2492	2020 552 96618	1nF 10% X7 50V
2493	2020 552 96618	1nF 10% X7 50V
2495	2020 552 96618	1nF 10% X7 50V
2496	2020 552 96618	1nF 10% X7 50V
2497	2020 552 96618	1nF 10% X7 50V
2498	2238 586 59812	100nF +80-20% Y5V 50V

- CAPACITORS -

2499	2020 552 96618	1nF 10% X7 50V
2500	2020 552 96637	10µF 10% X5 6,3V
2501	2238 586 59812	100nF +80-20% Y5V 50V
2502	2238 586 59812	100nF +80-20% Y5V 50V
2503	2020 552 96637	10µF 10% X5 6,3V
2504	2020 552 96637	10µF 10% X5 6,3V
2505	2238 586 59812	100nF +80-20% Y5V 50V
2506	2238 586 59812	100nF +80-20% Y5V 50V
2507	2020 552 96637	10µF 10% X5 6,3V
2508	2020 552 96637	10µF 10% X5 6,3V
2509	2238 586 59812	100nF +80-20% Y5V 50V
2514	3198 032 28210	220µF 20% 6,3V
2515	3198 032 28210	220µF 20% 6,3V
2516	4822 126 11785	47pF 5% NP0 50V
2517	4822 126 11785	47pF 5% NP0 50V
2518	2022 009 00656	47µF 20% 6,3V
2519	2022 009 00656	47µF 20% 6,3V
2520	2238 586 59812	100nF +80-20% Y5V 50V
2521	2020 552 94427	100pF 5% NP0 50V
2522	5322 126 11583	10nF 10% X7 50V
2523	5322 126 11579	3,3nF 10% X7 63V
2524	2238 586 59812	100nF +80-20% Y5V 50V
2525	2020 552 96637	10µF 10% X5 6,3V
2526	4822 126 14241	330pF NP0 50V
2527	2238 586 59812	100nF +80-20% Y5V 50V
2528	4822 126 13879	220nF +80-20% 16V
2529	3198 017 34730	47nF X7 16V
2530	4822 126 13881	470pF 5% 50V
2531	3198 017 36830	68nF X7 16V
2532	2238 586 59812	100nF +80-20% Y5V 50V
2550	3198 017 41050	1µF Y5V 10V
2551	3198 017 41050	1µF Y5V 10V
2552	4822 126 11785	47pF 5% NP0 50V
2553	4822 126 11785	47pF 5% NP0 50V
2554	5322 126 11583	10nF 10% X7 50V
2555	3198 017 34730	47nF X7 16V
2556	4822 126 13883	220pF 5% 50V
2557	2238 586 59812	100nF +80-20% Y5V 50V
2558	2238 586 59812	100nF +80-20% Y5V 50V
2559	2020 552 96618	1nF 10% X7 50V
2560	2020 552 96618	1nF 10% X7 50V
2561	2020 552 96618	1nF 10% X7 50V
2562	2020 552 96618	1nF 10% X7 50V
2563	2020 552 96618	1nF 10% X7 50V
2564	2020 552 96618	1nF 10% X7 50V
2565	2020 552 96618	1nF 10% X7 50V
2566	2020 552 96618	1nF 10% X7 50V
2567	2020 552 96618	1nF 10% X7 50V
2568	2020 552 96618	1nF 10% X7 50V
2569	2020 552 96618	1nF 10% X7 50V

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ELECTRICAL PARTSLIST - MAIN BOARD

ELECTRICAL PARTSLIST - MAIN BOARD

- RESISTORS -

3223	2322 704 63164	316K 1%
3224	4822 117 12925	47K 1% 0,063W
3225	2122 118 06313	ST SM LC11P 5%
3226	5322 117 13019	100K 1% 0,063W
3227	4822 117 13632	100K 1% 0,62W
3228	4822 117 13632	100K 1% 0,62W
3229	4822 051 30334	330K 5% 0,062W
3230	5322 117 13064	39K 1% 0,063W
3231	4822 051 30102	1K 5% 0,062W
3232	2322 704 63484	348K 1%
3233	2322 704 62704	270K 1%
3235	4822 117 12917	1R 5% 0,062W
3236	4822 117 13632	100K 1% 0,62W
3237	4822 117 13632	100K 1% 0,62W
3238	4822 051 30102	1K 5% 0,062W
3239	4822 051 30102	1K 5% 0,062W
3240	4822 117 13632	100K 1% 0,62W
3241	4822 117 13608	4,7R 5% 0,0016W
3242	4822 117 13613	2,2R 5%
3243	4822 051 30109	10R 5% 0,062W
3246	4822 117 13602	2,2K 5% 0,0062W
3247	2322 704 62002	2K 1%
3248	4822 051 30008	0R JUMPER
3251	4822 051 30105	1M 5% 0,062W
3252	4822 117 13545	100R 5%
3255	4822 117 12891	220K 1%
3256	5322 117 13019	100K 1% 0,063W
3257	5322 117 13019	100K 1% 0,063W
3258	4822 117 13632	100K 1% 0,62W
3259	4822 051 30474	470K 5% 0,062W
3260	3198 021 31060	10M 5%
3261	3198 021 32250	2,2M 5%
3262	3198 021 32250	2,2M 5%
3263	4822 051 30105	1M 5% 0,062W
3264	4822 051 30105	1M 5% 0,062W
3265	4822 051 30109	10R 5% 0,062W
3266	4822 051 30103	10K 5% 0,062W
3267	4822 051 30471	470R 5% 0,062W
3268	4822 051 30683	68K 5% 0,062W
3269	4822 051 30271	270R 5% 0,062W
3270	4822 051 30103	10K 5% 0,062W
3272	4822 051 30221	220R 5% 0,062W
3273	4822 051 30221	220R 5% 0,062W
3274	4822 051 30334	330K 5% 0,062W
3275	4822 117 13632	100K 1% 0,62W
3276	4822 117 13632	100K 1% 0,62W
3277	4822 117 13613	2,2R 5%
3278	4822 051 30008	0R JUMPER
3279	4822 051 30334	330K 5% 0,062W
3280	4822 117 13632	100K 1% 0,62W

- RESISTORS -

3400	3198 031 01090	10R 5%
3401	4822 117 13548	1K 5%
3402	4822 051 30682	6,8K 5% 0,062W
3403	4822 117 13632	100K 1% 0,62W
3404	4822 117 13632	100K 1% 0,62W
3405	4822 117 13632	100K 1% 0,62W
3406	4822 117 13632	100K 1% 0,62W
3407	4822 117 13632	100K 1% 0,62W
3408	4822 117 13632	100K 1% 0,62W
3409	4822 117 13632	100K 1% 0,62W
3410	4822 117 13632	100K 1% 0,62W
3411	4822 117 11297	100K 1/16W
3412	4822 117 13632	100K 1% 0,62W
3413	4822 117 13632	100K 1% 0,62W
3414	4822 117 13632	100K 1% 0,62W
3415	4822 117 11297	100K 1/16W
3416	4822 117 11297	100K 1/16W
3417	4822 117 11297	100K 1/16W
3418	4822 117 13632	100K 1% 0,62W
3419	4822 117 13632	100K 1% 0,62W
3420	4822 117 13632	100K 1% 0,62W
3421	4822 117 13632	100K 1% 0,62W
3422	3198 031 01520	1,5K 5%
3423	4822 117 13606	10K 5% 0,0062W
3424	4822 117 13606	10K 5% 0,0062W
3425	4822 117 13606	10K 5% 0,0062W
3426	4822 117 13606	10K 5% 0,0062W
3427	4822 117 11297	100K 1/16W
3428	4822 117 13545	100R 5%
3429	4822 117 13545	100R 5%
3430	4822 051 30101	100R 5% 0,062W
3431	4822 117 13632	100K 1% 0,62W
3432	4822 051 30102	1K 5% 0,062W
3433	4822 117 13632	100K 1% 0,62W
3434	4822 117 13632	100K 1% 0,62W
3435	4822 117 13632	100K 1% 0,62W
3436	4822 117 13632	100K 1% 0,62W
3437	4822 117 13632	100K 1% 0,62W
3438	4822 117 13632	100K 1% 0,62W
3439	4822 117 13632	100K 1% 0,62W
3440	4822 051 30222	2,2K 5% 0,062W
3441	4822 051 30222	2,2K 5% 0,062W
3442	4822 117 13632	100K 1% 0,62W
3443	4822 117 13632	100K 1% 0,62W
3444	4822 117 13632	100K 1% 0,62W
3445	4822 117 13632	100K 1% 0,62W
3446	4822 117 13632	100K 1% 0,62W
3447	4822 117 13632	100K 1% 0,62W
3448	4822 117 13632	100K 1% 0,62W
3449	4822 117 13632	100K 1% 0,62W

- RESISTORS -

3450	3198 031 03390	33R 5%
3451	4822 117 13632	100K 1% 0,62W
3452	4822 117 13632	100K 1% 0,62W
3453	2322 704 63484	348K 1%
3454	2322 704 68203	82K 1%
3455	4822 117 12925	47K 1% 0,063W
3456	4822 117 12925	47K 1% 0,063W
3457	4822 051 30103	10K 5% 0,062W
3458	4822 117 12925	47K 1% 0,063W
3459	4822 117 12925	47K 1% 0,063W
3460	4822 117 12925	47K 1% 0,063W
3461	4822 117 12925	47K 1% 0,063W
3462	4822 051 30103	10K 5% 0,062W
3463	4822 117 13632	100K 1% 0,62W
3464	4822 117 13632	100K 1% 0,62W
3465	4822 051 30102	1K 5% 0,062W
3466	4822 051 30339	33R 5% 0,062W
3467	4822 051 30008	0R JUMPER
3470	4822 117 13605	0,05R 100% 0,0062W
3471	4822 051 30008	0R JUMPER
3472	4822 117 12925	47K 1% 0,063W
3473	4822 117 12925	47K 1% 0,063W
3474	4822 051 30472	4,7K 5% 0,062W
3475	4822 051 30103	10K 5% 0,062W
3476	4822 051 30562	5,6K 5% 0,063W
3477	4822 051 30103	10K 5% 0,062W
3478	4822 117 12891	220K 1%
3479	4822 051 30474	470K 5% 0,062W
3480	4822 117 13632	100K 1% 0,62W
3481	4822 117 13632	100K 1% 0,62W
3482	3198 031 04720	4,7K 5%
3483	3198 031 04720	4,7K 5%
3484	3198 031 04720	4,7K 5%
3485	3198 031 04720	4,7K 5%
3486	3198 031 04720	4,7K 5%
3487	3198 031 04720	4,7K 5%
3488	3198 031 04720	4,7K 5%
3489	3198 031 04720	4,7K 5%
3490	3198 031 04720	4,7K 5%
3491	3198 031 04720	4,7K 5%
3492	3198 031 04720	4,7K 5%
3493	3198 031 04720	4,7K 5%
3494	3198 031 04720	4,7K 5%
3495	3198 031 04720	4,7K 5%
3496	3198 031 04720	4,7K 5%
3497	3198 031 04720	4,7K 5%
3498	3198 031 04720	4,7K 5%
3499	4822 051 30472	4,7K 5% 0,062W
3502	4822 117 13632	100K 1% 0,62W
3507	4822 117 12925	47K 1% 0,063W

- RESISTORS -

3508	4822 117 12925	47K 1% 0,063W
3509	4822 051 30222	2,2K 5% 0,062W
3510	4822 051 30109	10R 5% 0,062W
3511	4822 117 13632	100K 1% 0,62W
3512	4822 117 13632	100K 1% 0,62W
3513	4822 117 12889	270K 1% 0,063W
3514	4822 051 30101	100R 5% 0,062W
3515	4822 117 12968	820R 5% 0,62W
3516	4822 051 30154	150K 5% 0,062W
3517	4822 117 13632	100K 1% 0,62W
3518	4822 051 30332	3,3K 5% 0,062W
3519	4822 051 30103	10K 5% 0,062W
3520	4822 117 13632	100K 1% 0,62W
3521	4822 117 13632	100K 1% 0,62W
3522	4822 051 30103	10K 5% 0,062W
3530	3198 031 04720	4,7K 5%
3531	3198 031 04720	4,7K 5%
3533	3198 031 04720	4,7K 5%
3548	4822 051 30008	0R JUMPER
3549	4822 051 30008	0R JUMPER
3550	4822 051 30682	6,8K 5% 0,062W
3551	4822 051 30682	6,8K 5% 0,062W
3552	4822 051 30682	6,8K 5% 0,062W
3553	4822 051 30682	6,8K 5% 0,062W
3554	4822 117 13632	100K 1% 0,62W
3556	4822 051 30008	0R JUMPER
3557	4822 051 30681	680R 5% 0,062W
3558	4822 051 30103	10K 5% 0,062W
3559	4822 117 12925	47K 1% 0,063W
3560	4822 051 30102	1K 5% 0,062W
3561	4822 051 30472	4,7K 5% 0,062W
3562	3198 031 04720	4,7K 5%
3563	3198 031 04720	4,7K 5%
3564	3198 031 04720	4,7K 5%
3565	4822 051 30472	4,7K 5% 0,062W
3566	3198 031 04720	4,7K 5%
3567	3198 031 04720	4,7K 5%
3568	3198 031 04720	4,7K 5%
3569	3198 031 04720	4,7K 5%
3570	3198 031 04720	4,7K 5%
3571	3198 031 04720	4,7K 5%
3572	3198 031 04720	4,7K 5%
3573	3198 031 04720	4,7K 5%
3574	3198 031 04720	4,7K 5%
3575	3198 031 04720	4,7K 5%
3576	3198 031 04720	4,7K 5%
3577	3198 031 04720	4,7K 5%
3578	3198 031 04720	4,7K 5%
3579	3198 031 04720	4,7K 5%
3580	3198 031 04720	4,7K 5%

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ELECTRICAL PARTSLIST - MAIN BOARD

- RESISTORS -

3582	3198 031 04720	4,7K 5%
3584	3198 031 04720	4,7K 5%
3585	4822 117 13545	100R 5%
3586	4822 117 13545	100R 5%
3587	4822 117 13545	100R 5%
3588	4822 117 13545	100R 5%
3590	3198 031 04720	4,7K 5%
3591	3198 031 04720	4,7K 5%
3592	3198 031 04720	4,7K 5%
3593	3198 031 04720	4,7K 5%
3594	3198 031 04720	4,7K 5%
3596	3198 031 04720	4,7K 5%
3597	4822 051 30008	0R JUMPER
3600	4822 117 11297	100K 1/16W
3601	4822 117 11297	100K 1/16W
3602	4822 117 11297	100K 1/16W
4200	4822 051 30008	0R JUMPER
4201	2322 704 66202	6,2K 1%
4403	4822 117 13605	0,05R 100% 0,0062W
4405	4822 117 13605	0,05R 100% 0,0062W
4406	4822 051 30008	0R JUMPER
4407	4822 051 30008	0R JUMPER
4408	4822 051 30008	0R JUMPER
4409	4822 051 30008	0R JUMPER
4411	4822 051 30008	0R JUMPER
4412	4822 051 30008	0R JUMPER
4413	4822 051 30008	0R JUMPER
4414	4822 051 30008	0R JUMPER
4415	4822 051 30008	0R JUMPER
4416	4822 051 30008	0R JUMPER
4417	4822 051 30008	0R JUMPER
4420	4822 051 30008	0R JUMPER
4500	4822 051 30008	0R JUMPER
4501	4822 051 30008	0R JUMPER

- COILS & FILTERS -

5200	2422 549 44197	IND FXD SM EMI 100MHZ
5201	2422 536 00566	IND FXD SM D62LCB 4,7µH 20%
5202	2422 536 00566	IND FXD SM D62LCB 4,7µH 20%
5203	2422 536 00565	IND FXD SM D52LC 4,7µH 20%
5204	2422 536 00575	IND FXD SM D52LC 22µH 20%
5205	2422 549 44197	IND FXD SM EMI 100MHZ
5206	2422 549 44197	IND FXD SM EMI 100MHZ
5207	2422 549 44197	IND FXD SM EMI 100MHZ
5208	2422 549 44197	IND FXD SM EMI 100MHZ
5209	2422 549 44197	IND FXD SM EMI 100MHZ

- COILS & FILTERS -

5401	2422 536 00577	IND FXD SM 0,15µH 10%
5402	2422 549 44197	IND FXD SM EMI 100MHZ
5500	4822 157 71206	BLM21A601SPT
5501	4822 157 71206	BLM21A601SPT
5502	4822 157 71206	BLM21A601SPT
5504	2422 536 00577	IND FXD SM 0,15µH 10%
5550	4822 157 71206	BLM21A601SPT
5551	4822 157 71206	BLM21A601SPT
5552	4822 157 71206	BLM21A601SPT
5553	4822 157 71206	BLM21A601SPT

- DIODES -

6204	9322 191 56685	MBM120L
6205	9322 191 56685	MBM120L
6206	4822 130 82594	BAT54C
6208	4822 130 80622	BAT54
6209	3198 020 55680	BZX384-C5V6
6210	9322 197 76685	GSOT05C
6401	2422 549 45521	VD/ESD 24V
6402	2422 549 45521	VD/ESD 24V
6403	4822 130 80622	BAT54

- IC & TRANSISTORS -

7203	9322 190 85685	LTC1872ES6
7204	9322 180 12685	SI2312DS
7205	9322 179 08685	SI2305DS
7206	9322 191 23685	LTC3405AES6
7207	9322 179 08685	SI2305DS
7215	9322 190 32668	LTC1733EMSE
7216	9322 179 08685	SI2305DS
7217	9340 547 13215	BSH103
7218	9322 179 08685	SI2305DS
7219	9322 190 87685	NCP500SN25
7220	9322 190 86685	LT1937ES5
7222	9351 749 70118	74LV4053PW
7223	4822 130 60373	BC856B
7224	5322 130 60159	BC846B
7225	4822 130 60373	BC856B
7226	5322 130 60159	BC846B
7227	5322 130 60159	BC846B
7401	9322 191 11671	PP5002D-CSP
7402	9322 184 94671	M29W800DT-70N6
7403	9322 193 47668	MT48LC16M16A2TG-7EL

ELECTRICAL PARTSLIST - MAIN BOARD

- IC & TRANSISTORS -

7404	9340 547 13215	BSH103
7405	9352 317 20118	74LVC125APW
7406	9340 547 13215	BSH103
7408	9322 190 50671	CY7C68013-100AC
7411	2722 171 08803	CRYSTAL
7412	9322 190 30685	ADCV0831M6
7413	9322 190 84668	MAX708CUA
7414	9322 191 48685	NL27WZ07DT
7415	9322 191 68682	XWM8731EFL
7416	4822 130 82594	BAT54C
7417	4822 130 82594	BAT54C
7418	9322 191 47685	TS7211AIL
7420	9322 187 65668	TS462CP
7501	4822 130 60373	BC856B
7502	9339 089 30215	PMBFJ177
7503	5322 130 60159	BC846B
7504	9322 197 76685	GSOT05C

Note: Only these parts mentioned in the list are normal service parts.

REVISION LIST

Version 1.0 (3140 785 32430)

- Initial Release HDD100/00/05/17

Version 1.1 (3140 785 32431)

- Introduction of HDD120/00/05/17
- Page 1-1 : Technical Specification adapted
- Page 1-1 : Accessories list adapted.
- Page 5-1 : Exploded view diagram and mechanical parts list adapted.