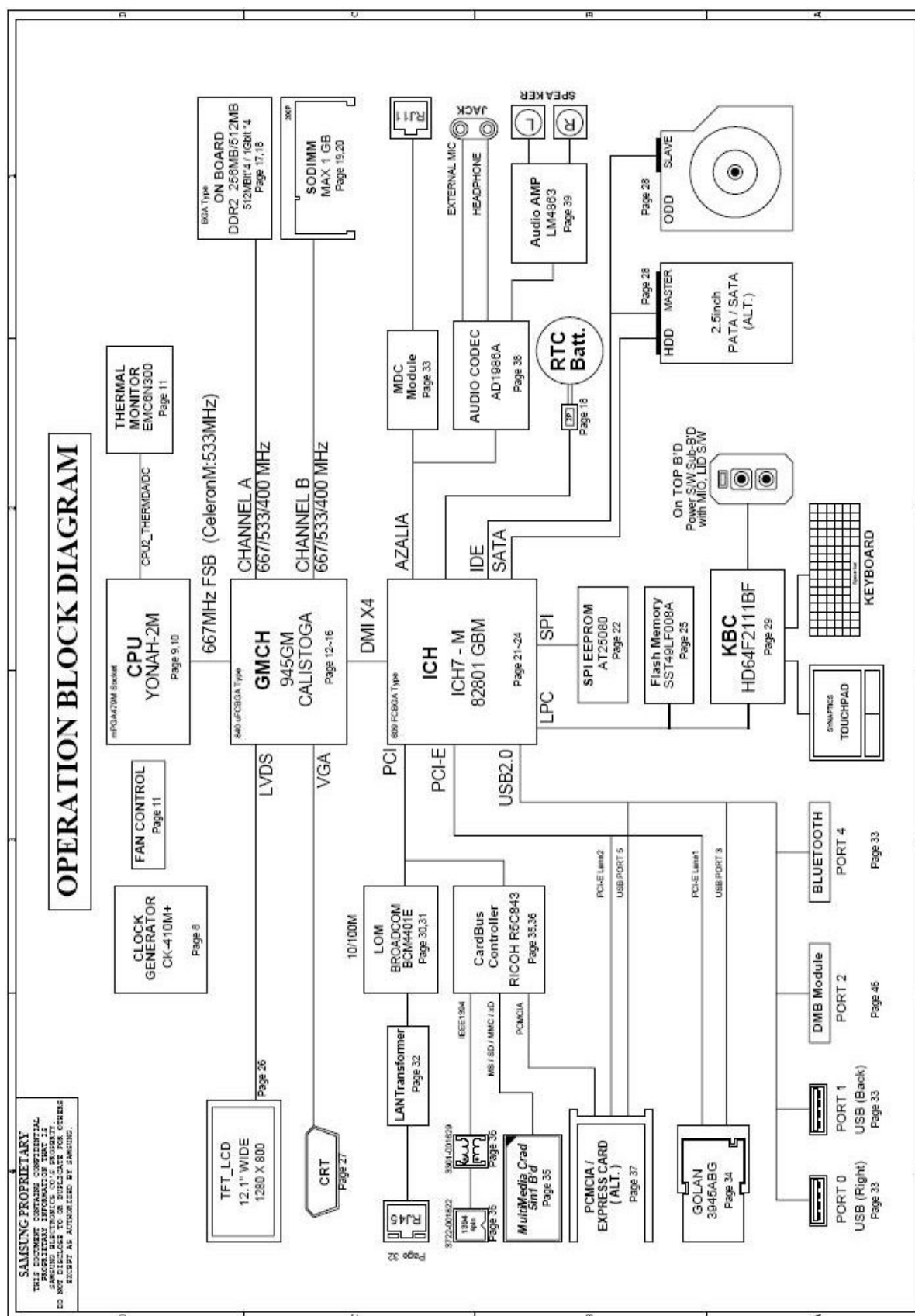


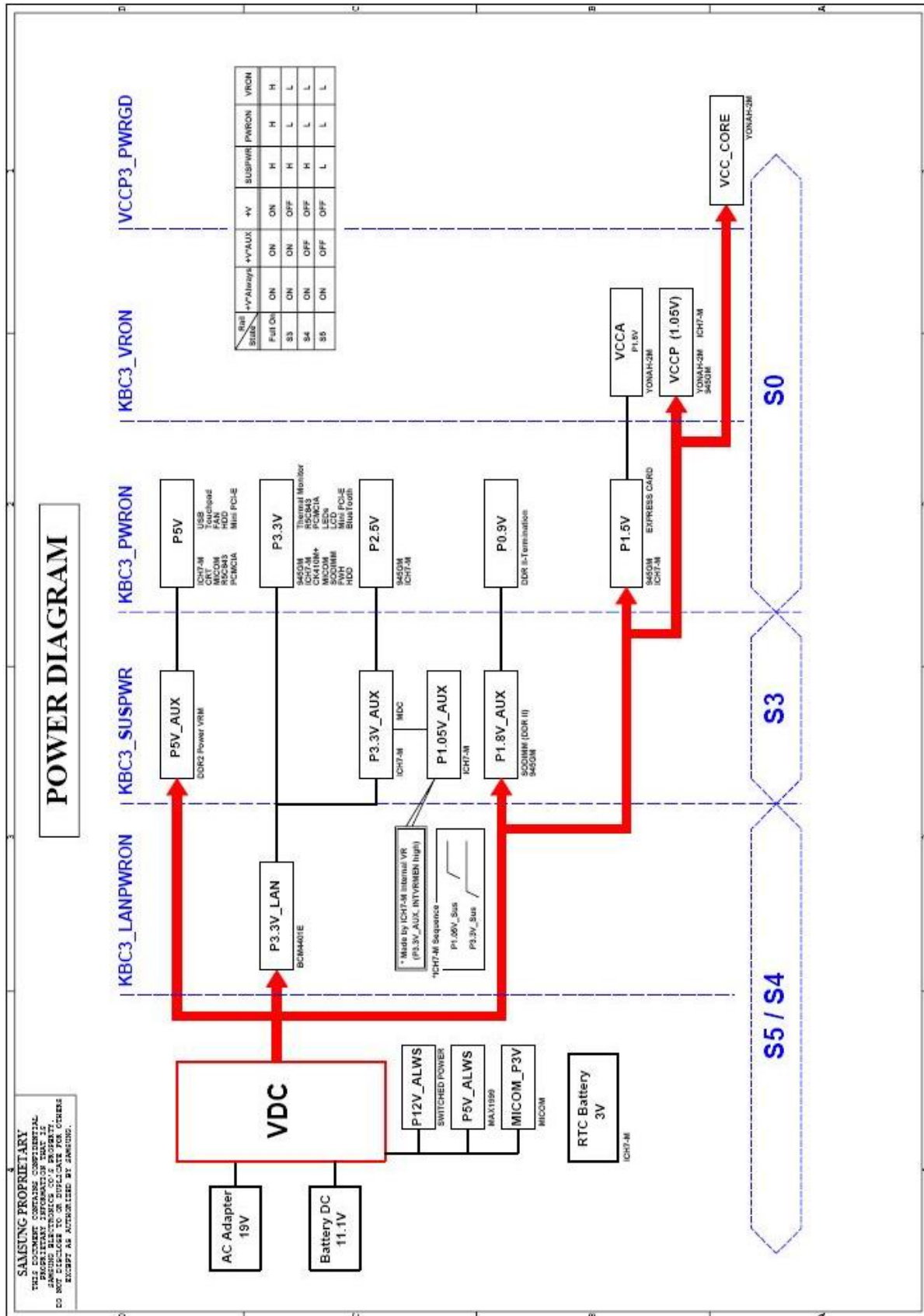
8. System Block Diagram

8-1 Operation Block Diagram



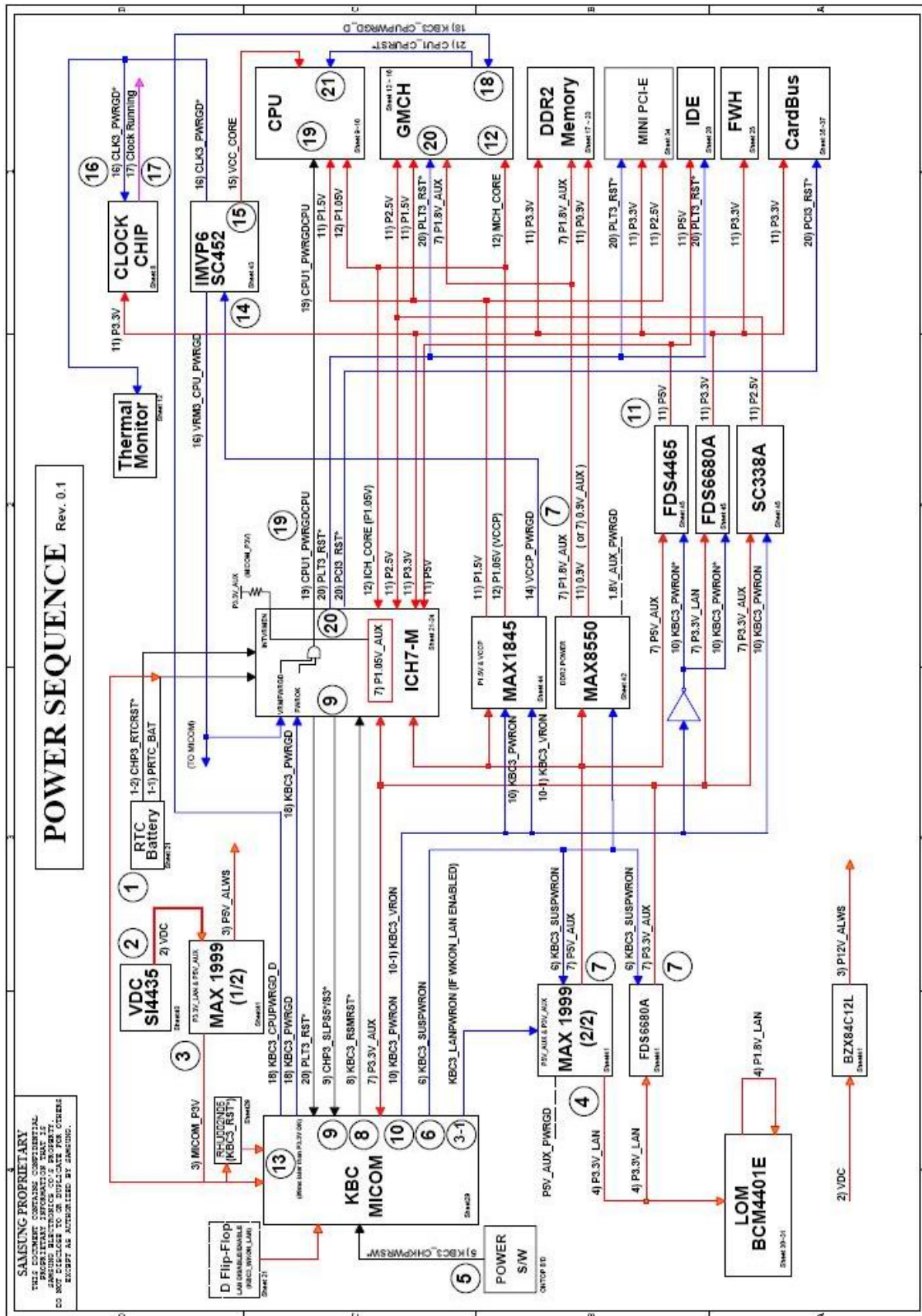
8. System Block Diagram

8-2 Power Diagram



8. System Block Diagram

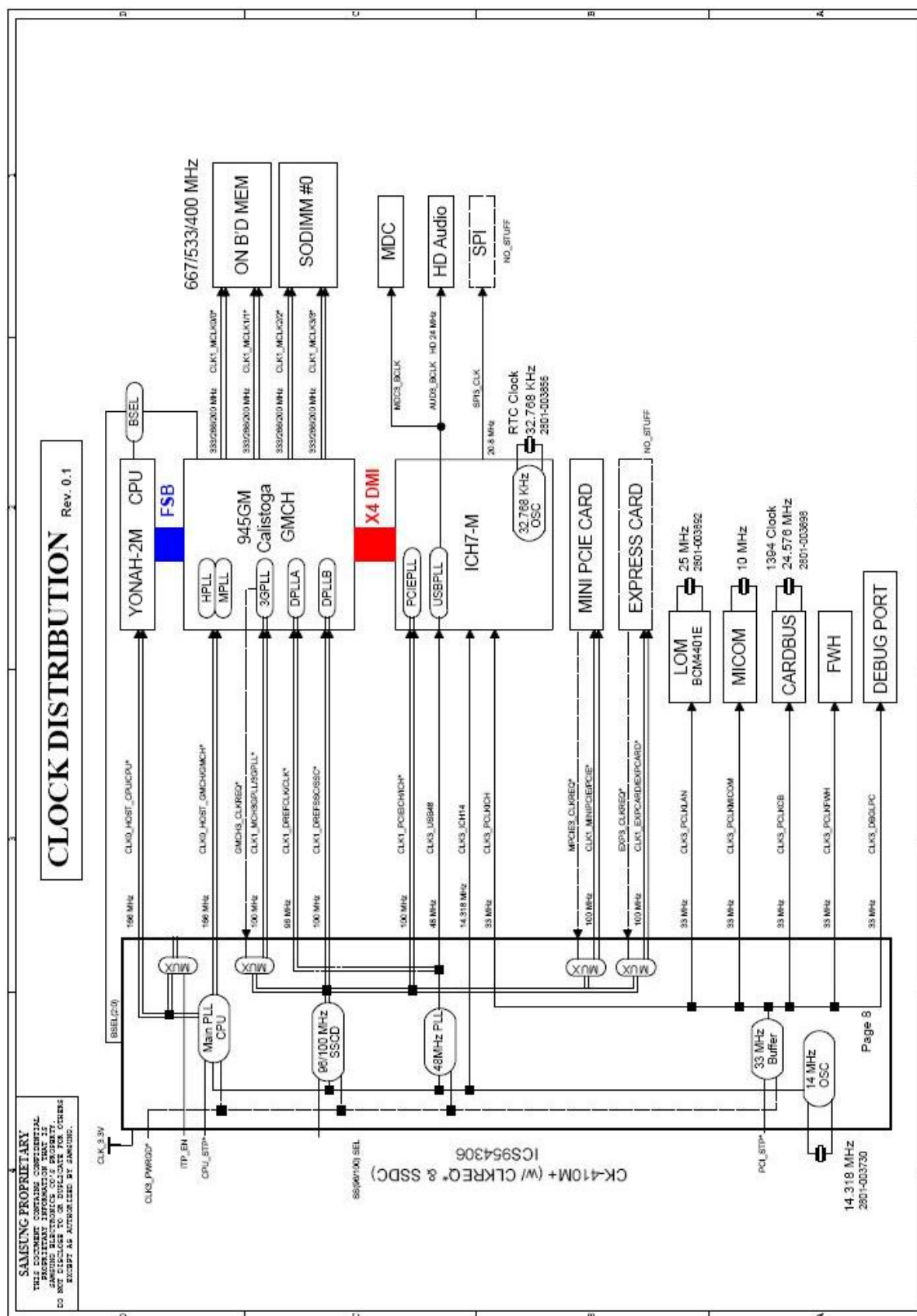
8-3 Power Sequence



[illegible]

8. System Block Diagram

8-5 Clock Distribution



8-6 Board Information

BOARD INFORMATION

SCHEMATIC ANNOTATIONS AND BOARD INFORMATION

PCI Devices

Services	DBSEL#	REQCNT#	Interrupts
Carbon	AQ25	0	E F G
AD25	AQ27	1	G
AD25	AQ28	-	USB2.0 AD A
USB	AQ29	-	USB2.0 AD B
USB	AQ30	-	USB2.0 AD C
USB	AQ31	-	USB2.0 AD D
USB	AQ32	-	USB2.0 AD E
USB	AQ33	-	USB2.0 AD F
USB	AQ34	-	USB2.0 AD G
USB	AQ35	-	USB2.0 AD H
USB	AQ36	-	USB2.0 AD I
USB	AQ37	-	USB2.0 AD J
USB	AQ38	-	USB2.0 AD K
USB	AQ39	-	USB2.0 AD L
USB	AQ40	-	USB2.0 AD M
USB	AQ41	-	USB2.0 AD N
USB	AQ42	-	USB2.0 AD O
USB	AQ43	-	USB2.0 AD P
USB	AQ44	-	USB2.0 AD Q
USB	AQ45	-	USB2.0 AD R
USB	AQ46	-	USB2.0 AD S
USB	AQ47	-	USB2.0 AD T
USB	AQ48	-	USB2.0 AD U
USB	AQ49	-	USB2.0 AD V
USB	AQ50	-	USB2.0 AD W
USB	AQ51	-	USB2.0 AD X
USB	AQ52	-	USB2.0 AD Y
USB	AQ53	-	USB2.0 AD Z
USB	AQ54	-	USB2.0 AD AA
USB	AQ55	-	USB2.0 AD AB
USB	AQ56	-	USB2.0 AD AC
USB	AQ57	-	USB2.0 AD AD
USB	AQ58	-	USB2.0 AD AE
USB	AQ59	-	USB2.0 AD AF
USB	AQ60	-	USB2.0 AD AG
USB	AQ61	-	USB2.0 AD AH
USB	AQ62	-	USB2.0 AD AI
USB	AQ63	-	USB2.0 AD AJ
USB	AQ64	-	USB2.0 AD AK
USB	AQ65	-	USB2.0 AD AL
USB	AQ66	-	USB2.0 AD AM
USB	AQ67	-	USB2.0 AD AN
USB	AQ68	-	USB2.0 AD AO
USB	AQ69	-	USB2.0 AD AP
USB	AQ70	-	USB2.0 AD AQ
USB	AQ71	-	USB2.0 AD AR
USB	AQ72	-	USB2.0 AD AS
USB	AQ73	-	USB2.0 AD AT
USB	AQ74	-	USB2.0 AD AU
USB	AQ75	-	USB2.0 AD AV
USB	AQ76	-	USB2.0 AD AW
USB	AQ77	-	USB2.0 AD AX
USB	AQ78	-	USB2.0 AD AY
USB	AQ79	-	USB2.0 AD AZ
USB	AQ80	-	USB2.0 AD BA
USB	AQ81	-	USB2.0 AD BB
USB	AQ82	-	USB2.0 AD BC
USB	AQ83	-	USB2.0 AD BD
USB	AQ84	-	USB2.0 AD BE
USB	AQ85	-	USB2.0 AD BF
USB	AQ86	-	USB2.0 AD BG
USB	AQ87	-	USB2.0 AD BH
USB	AQ88	-	USB2.0 AD BI
USB	AQ89	-	USB2.0 AD BJ
USB	AQ90	-	USB2.0 AD BK
USB	AQ91	-	USB2.0 AD BL
USB	AQ92	-	USB2.0 AD BM
USB	AQ93	-	USB2.0 AD BN
USB	AQ94	-	USB2.0 AD BO
USB	AQ95	-	USB2.0 AD BP
USB	AQ96	-	USB2.0 AD BQ
USB	AQ97	-	USB2.0 AD BR
USB	AQ98	-	USB2.0 AD BS
USB	AQ99	-	USB2.0 AD BT
USB	AQ100	-	USB2.0 AD BU
USB	AQ101	-	USB2.0 AD BV
USB	AQ102	-	USB2.0 AD BW
USB	AQ103	-	USB2.0 AD BX
USB	AQ104	-	USB2.0 AD BY
USB	AQ105	-	USB2.0 AD BZ
USB	AQ106	-	USB2.0 AD CA
USB	AQ107	-	USB2.0 AD CB
USB	AQ108	-	USB2.0 AD CC
USB	AQ109	-	USB2.0 AD CD
USB	AQ110	-	USB2.0 AD CE
USB	AQ111	-	USB2.0 AD CF
USB	AQ112	-	USB2.0 AD CG
USB	AQ113	-	USB2.0 AD CH
USB	AQ114	-	USB2.0 AD CI
USB	AQ115	-	USB2.0 AD CJ
USB	AQ116	-	USB2.0 AD CK
USB	AQ117	-	USB2.0 AD CL
USB	AQ118	-	USB2.0 AD CM
USB	AQ119	-	USB2.0 AD CN
USB	AQ120	-	USB2.0 AD CO
USB	AQ121	-	USB2.0

Voltage Rails

VDC	Primary DC system power supply (7 to 21V)
VCC	CPU voltage for Processor (3.3 or 1.68V)
VTT	TTL voltage for System Status (3.3 or 1.68V) GND-H & -C5-V Core Voltage
P1 SW_AUX	1.8V power rail for DRPC (off at S3-S5)
P1 SW_	0.9V switched power rail (off at S3-S5)
P2 SW_	1.5V switched power rail (off at S3-S5)
P3 SW_	2.5V switched power rail (off at S3-S5)
P4 SW_	3.3V switched power rail (off at S3-S5)
P5 SW_AUX	3.3V power rail (off at S4-S5)
P5 SW_AUX	5.0V power rail (off at S4-S5)
P5 SW_AUX	5.0V power rail (Always On)
P5 SW_AUX	5.0V power rail (Always Off)
P5 SW_AUX	3.0V power rail (ALWAYS ON)
P5 SW_AUX	3.0V power rail (ALWAYS OFF)
MCOM_PSW	Microprocessor control signal for MCOM
P5 SW_ALMS	5V power rail (Always On)
P5 SW_ALMS	12V power rail (Always On)

IPFC / SMB Address

Devices	Address	Hex	Bus
CH7	Master	-	SMBus Master
10C010M1	1010 010X	ACh	-
3C4c47M+ (Clock Generator)	1101 010x	D2h	Clock, Unused Clock Output Disable
MECOM	Master	-	SMBus Master
BATTERY	0001 011X	16h	-
EMC8B300 (CPU Thermal Sensor)	0101 111X	5Ch	Thermal Sensor

USB PORT Assign

PORT NUMBER	ASSIGNED TO
0	SYSTEM PORT A
1	SYSTEM PORT B
2	SYSTEM PORT C
3	MINI-PC
4	BLUETOOTH
5	EXPANSION CARD
6	RESERVED
7	RESERVED

System Power States

CH9_P_S1*	\$1	Power-On-Suppress (POS). In the state, if deasserted the (S3PM, clock) are stopped. The system control is maintained in system. GRAM Power is maintained to VCC, the CPU, memory controller, memory, and all other critical subsystems. Note that this state does not preclude power being removed from non-essential devices, such as disk drives. During this state, CPU can be selected for either Deep Sleep or Deep Sleep.
CH9_P_S2*	\$2	Memory is retained, and the system control is maintained in system. GRAM, but power is shut off to non-critical circuits.
CH9_P_S3*	\$3	System (to-RAM) (SR). The system control is maintained in system. GRAM, but power is shut off to non-critical circuits.
CH9_P_S4*	\$4	System (to-DRAM) (SR). The content of the system is maintained on the disk. At power then shut off to the system except for the logic required to resume.
CH9_P_S5*	\$5	System (to-DRAM) (SR). The content of the system is maintained on the disk. At power then shut off for the logic required to resume. A full boot is required when waking.

Crystal / Oscillator

TYPE	FREQUENCY	DEVICE	USAGE
Crystal	32.768KHz	ICHT-M	Real Time Clock
Crystal	10MHz	CMC00	H34P71692160
Crystal	14.318MHz	CLK-Generator	CK-410M
Crystal	24.576MHz	Cirrus Controller	1304
Crystal	25MHz	LAN	Intel LAN

CPU Core Voltage Table

[illegible]

*Fourth Processor (2.33 GHz / 1.00 GHz)