KODE STANDAR KESALAHAN DARI AWARD BIOS

AWARD BIOS (Original XT):

03	Flag resister test
06	CPU register test
09	System hardware initialization
0C	BIOS checksum
0F	DMA page register initialization
12	Test DMA address and count registers
15	DMA initialization
18	Timer test
1B	Timer initialization
1E	Start RAM initialization
21	Test base 64K of RAM
24	Setup init. and temp stack
27	Initialize PIC
2A	Interrupt mask register test
2D	Hot interrupt test
30	V40 DMA if present
33	Verify system clock initialization
36	Keyboard test
39	Setup interrupt table
3C	Read system configuration switches
3F	Video test
42	Serial port determination
45	Parallel port determination
48	Game port determination
4B	Copyright message display
4E	Calculation of CPU speed
54	Test of system memory

55	Floppy drive test
57	System initialized before boot
5A	Call to Int 19

AWARD XT Version 3.1 BIOS:

01	Processor test fail; Processor status verification #1
02	Type of POST/keyboard buffer; Failed if the keyboard interface buffer is filled with data
06	Initialize 6845 video controller, 8237 DMA controller, 8259 PIC, 8253 timer channel channel 1 initialized; Reset math coprocessor; Disable color and mono video, parity circuits and DMA chips; Clear DMA chips and page registers
07	Process registers except SS, SP, BP with data patterns 00 and FF; Processor status verification #2
09	ROM checksum for 32K tested
0A	Initialize the 6845 video controller
15	Test first 64K of system memory
16	Set up interrupt table in first 64K
17	Set up video I/O operations
18	Test video memory
19	8259 mask bits-channel 1
1A	8259 mask bits-channel 2
1D	Setup configuration byte from CMOS
1E	Size memory and compare with CMOS
1F	Test base memory; Test found system memory
20	Test stuck 8259's Interrupt bits
21	Test stuck NMI parity I/O bits
22	8259 Interrupt functionality tested
2A	Keyboard initialized

2B	Floppy dive controller and drive initialized
2C	Initialize COM ports
2D	Initialize LPT ports
2F	Initialize math coprocessor
31	Initialize option ROM's
FF	Int. 19 boot attempt

AWARD Version 3.3 BIOS:

01-05	Keyboard controller 8042 tested
06	On-board LSI initialized
07	CPU flags tested
08	Calculate CMOS checksum
09	Initialize the 8254 PIT
0A	8254 PIC tested
0B	DMA controller tested
0C	8259 PIC initialized
0D	8259 PIC tested
0E	ROM BIOS checksum tested
0F	Extended CMOS tested
10	8259 PIC tested
11	8259 PIC tested
12	8259 PIC tested
13	8259 PIC tested
14	8259 PIC tested
15	First 64K RAM tested
16	Interrupt vector tables initialized
17	Video initialization
18	Video memory tested
19	Interrupt line mask 8259 PIC tested

1A	Interrupt line mask 8259 PIC tested
1B	Battery good
1C	CMOS checksum verified
1D	CMOS chip/RTC verified
1E	Memory size checked
1F	Memory verified
20	DMA initialized
21	PIC initialized
22	PIT initialized
24	Extended memory size checked
25	Extended memory tested
26	Protected mode entered
27	Shadow RAM, cache controller initialized
28	Shadow RAM, cache controller tested
29	Reserved
2A	Initialize keyboard
2B	Floppy drive initialization
2C	Serial port initialization
2D	Parallel port initialization
2E	Hard disk initialization
2F	Math coprocessor
30	Reserved
31	Optional ROM's checked for
FF	Boot from Int 19

AWARD EISA BIOS:

01	CPU flags
02	CPU registers
03	Initialize DMA, PIC, PIT

04	Memory refresh
05	Keyboard initialization
06	ROM checksum
07	CMOS, battery
08	256K memory
09	Cache
0A	Set Interrupt table
0B	CMOS checksum
0C	Keyboard initialization
0D	Video adapter
0E	Video memory
0F	DMA channel 0
10	DMA channel 1
11	DMA page register
14	Timer chip
15	PIC controller 1
16	PIC controller 0
17	PIC stuck bits
18	PIC maskable IRQ's
19	NMI bit check
1F	CMOS XRAM
20	Slot 0
21	Slot 1
22	Slot 2
23	Slot 3
24	Slot 4
25	Slot 5
26	Slot 6
27	Slot 7

28	Slot 8
29	Slot 9
2A	Slot 10
2B	Slot 11
2C	Slot 12
2D	Slot 13
2E	Slot 14
2F	Slot 15
30	Memory size 256K
31	Memory test over 256K
32	EISA memory
3C	CMOS setup
3D	Mouse/adapter, CMOS
3E	Cache RAM
3F	Shadow RAM
41	Floppy drive
42	Hard drive
43	RS232 parallel
45	NPU
47	Speed
4E	Manufacturing loop
4F	Security
50	CMOS update
51	Enable NMI, cache
52	Adapter ROM's
53	Set time
60	Virus protection setup
61	Boot speed
62	Numlock setup

63	Boot
B0	NMI in protected
B1	Disable NMI
BE	Chipset default initialization
BF	Chipset program
C0	Cache on/off
C1	Memory size
C2	Base 256K test
C3	DRAM page select
C4	Video switch
C5	Shadow RAM
C6	Cache program
C8	Speed switch
C9	Shadow RAM
CA	OEM chipset
FF	Boot

AWARD ISA/EISA BIOS Version 4.0:

01	CPU flags tested; Processor test #1
02	CPU registers tested; Processor test #2; Verify all CPU registers except SS, SP, BP with data patterns 00 and FF
03	Initialize DMA, PIC, PIT; Calculate BIOS EPROM and sign on message checksum (fail if not 0)
04	Memory refresh initialized; Test CMOS RAM interface
05	Keyboard initialization; Initialize NMI, PIE, AIE, UEI, SQWV; Disable video, parity checking and DMA; Math coprocessor reset; Clear all page registers and CMOS RAM shutdown byte; Initialize timers 0, 1, 2 and set EISA timer to a known state; Initialize DMA controllers 0 and 1; Initialize interrupt controllers 0 and 1; Initialize EISA extended registers

06	ROM checksum; Memory refresh tested
07	Low memory setup; Initialize chipset and test the presence of memory; OEM chipset initialization; Lower 256K of memory cleared; Enable parity checking and test parity in lower 256K memory
08	Setup Interrupt vector table; Initialize the first 120 Interrupt vectors with SPURIOUS_INT_HDLR and initialize INT 00-1F according to INT_TBL
09	Cache; CMOS checksum tested
0A	Set interrupt table; Initialize keyboard; Detect keyboard controller
0B	CMOS checksum; Video interface initialized
0C	Keyboard initialization; Video memory tested
0D	Video adapter initialized; OEM specific initializations
0E	Reserved
0F	DMA channel 0 tested with AA, 55, FF, 00 bit patterns
10	DMA channel 1 tested with AA, 55, FF, 00 bit patterns
11	DMA page register tested
12	Reserved
13	Reserved
14	Timer chip 8254 PIT timer 0 counter 2 tested
15	Verify 8259 PIC channel 1
16	Verify 8259 PIC channel 2
17	8259 PIC stuck bits tested; Turn Interrupt bits off and verify no Interrupt mask register is on
18	8259 PIC maskable IRQ's tested
19	NMI bit check tested and parity I/O checked
1A	Reserved
1B	Reserved
1C	Reserved

1D	Reserved
1E	Reserved
1F	CMOS XRAM checked for
20	Slot 0 EISA initialized and enabled
21	Slot 1 EISA initialized and enabled
22	Slot 2 EISA initialized and enabled
23	Slot 3 EISA initialized and enabled
24	Slot 4 EISA initialized and enabled
25	Slot 5 EISA initialized and enabled
26	Slot 6 EISA initialized and enabled
27	Slot 7 EISA initialized and enabled
28	Slot 8 EISA initialized and enabled
29	Slot 9 EISA initialized and enabled
2A	Slot 10 EISA initialized and enabled
2B	Slot 11 EISA initialized and enabled
2C	Slot 12 EISA initialized and enabled
2D	Slot 13 EISA initialized and enabled
2E	Slot 14 EISA initialized and enabled
2F	Slot 15 EISA initialized and enabled
30	Memory size below 256K
31	Memory test over 256K
32	EISA memory tested found during slot initialization
3C	CMOS setup; Enter protected mode
3D	Mouse/adapter, CMOS
3E	Cache RAM
3F	Shadow RAM
41	Initialize floppy drive
42	Initialize hard drive
43	RS232 parallel

45	NPU
47	Speed for boot set
4E	Manufacturing loop; display any soft errors
4F	Security; ask for password if security is enabled
50	CMOS update
51	Enable NMI, cache memory
52	Adapter ROM's from C8000h to EFFFFH or F7FFFh initialized
53	Set time value for address 40 of BIOS
60	Virus protection setup
61	Boot speed
62	Numlock setup
63	Boot from Int 19
B0	NMI in protected
B1	Disable NMI
BE	Chipset default initialization
BF	Chipset program; initialization of system specific chipsets
C0	Cache on/off
C1	Memory size checked
C2	Base 256K tested
C3	DRAM page select tested
C4	Video switch
C5	Shadow RAM tested
C6	Cache program; configure cache memory
C8	Speed switch
C9	Shadow RAM tested
CA	OEM chipset initialized
FF	Boot from Int 19

AWARD PnP BIOS:

01	Reserved
02	Reserved
03	Initialize EISA registers (EISA BIOS only)
04	Reserved
05	Keyboard controller self-tested
06	Reserved
07	Verify CMOS Read/Write
09	OEM specific initialization; Configure Cyrix CPU register
0A	Issue CPU ID instruction; Initialize the first 32 interrupt vectors, initialize Int.'s 33 to 120, power management initialization
0B	PnP initialization; verify the RTC time, detect bad battery, read the CMOS data into the BIOS stack area, assign I/O and memory for any PCI devices
0C	Initialization of BIOS data area
0D	Program some of chipset's value; Measure the CPU for display, initialize the video
0E	Initialize APIC (multiprocessor BIOS only); Show startup screen message
0F	DMA channel 0 tested
10	DMA channel 1 tested
11	DMA page registers tested
12	Reserved
13	Reserved
14	Test 8254 0 counter 2
15	Test 8259 interrupt mask bit for channel 1
16	Test 8259 interrupt mask bit for channel 2
17	Reserved
19	Test 8259 functionality

1A	Reserved
1B	Reserved
1C	Reserved
1D	Reserved
1E	If an EISA NVM
1F-29	Reserved
30	Get size of base and extended memory
31	Test base and extended memory, Test base memory from 256K to 640K , test extended memory above 1MB
32	Test all on-board super I/O ports
33	Reserved
3A	Reserved
3B	Reserved
3C	Set flag to allow CMOS setup utility
3D	Install PS/2 mouse
3E	Try to turn on level 2
3F	Reserved
40	Reserved
41	Initialize floppy drive controller
42	Initialize hard drive controller
43	Initialize serial & parallel ports (PnP BIOS only)
45	Initialize math coprocessor
46-4D	Reserved
4E	Show all error messages on screen
4F	Ask for password, if needed
50	Write all CMOS values located in the BIOS stack back to CMOS
51	Reserved
52	Initialize all ISA ROM's; PCI initializations (PCI BIOS only), PnP initialization (PnP BIOS Only), setup shadow RAM, initialize

	power management
53	If not PnP BIOS, initialize ports; Initialize time in BIOS data area
54-5F	Reserved
60	Setup virus protection for the boot sector
61	Try to turn on level 2 cache
62	program numlock & typematic speed
63	Boot system via Int 19h
B0	Unexpected interrupt in protected mode
B1	Unclaimed NMI occurred
BE	Program defaults into chipset
BF	Program remaining chipset values
C0	Init. all standard devices with defaults
C1	Auto detect on-board DRAM & cache
C3	Test first 26K DRAM
C5	Copy ROM BIOS to E000-FFFF
FF	System booting