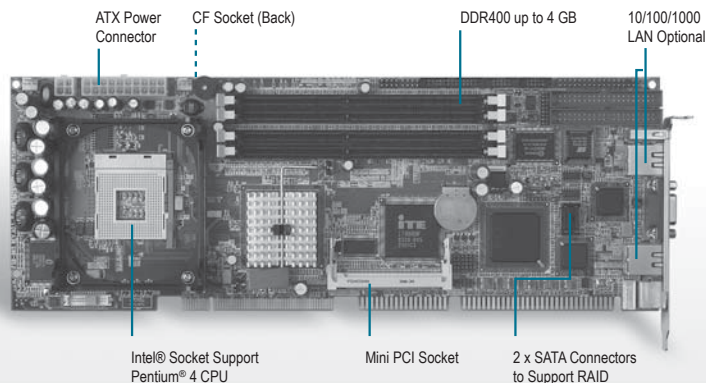


## Intel® Pentium® 4 Socket 478 PICMG Full-size SBC

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Full-size SBCs



### Features

- Intel® Pentium® 4 CPU up to 3.6GHz
- DDR400 Memory Supports up to 4GB
- Integrates AGP 8X 2D/3D Graphics Accelerator, VGA Support
- Dual 10/100/1000Base-TX Ethernet
- Integrates AC97 Codec Audio (Daughter Board Optional)
- USB 2.0 Port x 7/ RS-232 x 1, RS-232/422/485 x 1/ Parallel x 1/ IrDA Port x 1
- Ultra ATA100 & SATA & CompactFlash™ Type-II Storage
- Watchdog Function 1 ~ 255 Sec.



### Specifications

System	
Form Factor	PICMG Full-size SBC
Processor	Intel® Pentium® 4/ Celeron® CPUs, FSB: 400/533/800 MHz, supports up to 3.6GHz, does not support Prescott processors
System Memory	184-pin 2.5V DDR DIMM Socket x 4, total up to 4 GB Supports Dual Channels DDR memory (DDR 266/333/400)
Main Chipset	Intel® 865GV + Intel® 82801EB/ER (ICH5/ICH5R optional)
Ethernet	10/100Mb or 10/100/1000Mb LAN optional, RJ-45 x 2 Intel® 82562EZ/ 82547GI/ 82551QM /82541GI controller
BIOS	Award Plug & Play Firmware Hub BIOS - 4Mb ROM
IDE Interface	ATA-100 x 2 channels (Supports two ATAPI devices) SATA-I x 2 (Supports two SATA devices, Raid function optional)
SSD	Supports CF Type II Connector
Expansion Interface	ISA/ PCI/ Mini PCI Type III
Watchdog Timer	1 ~ 255 Sec., can be set with software on Super I/O
RTC	Internal RTC
Battery	Lithium battery
Power Requirement	ATX, ATX12V
Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
Board Size	13.3"(L) x 4.8"(W) (338mm x 122mm)
Gross Weight	1.2 lb (0.5 kg)
MTBF (Hours)	66,027
Power Consumption (Typical)	53W, with Pentium® 4 2.4GHz/ FSB 533MHz/ 512KB L2 Cache
Display	
VGA Controller	Integrates on Intel® 865GV, AGP 8X, Core frequency up to 266MHz
LCD Controller	Chrontel CH7017A supports TV-out And LVDS output
Memory	Shared memory up to 64MB
Resolutions	Up to 2048 x 1536 @ 32bpp for CRT Up to 1600 x 1200 @ 24-bit for LCD
LCD Interface	18/24-bit LVDS, supports 36/48-bit
I/O	
Serial Port	COM port x 2: (Internal Pin Header, External D-sub x 2) COM 1: RS-232 COM 2: RS-232/ RS-422/ RS-485
Parallel Port	Supports SPP/ EPP/ ECP mode USB 2.0 port x 7
Universal Serial Bus	5 x 2 pin headers for internal x 3 TYPE-A connector onboard x 1
Floppy Drive Interface	Standard Floppy Disk Drive port x 1, supports up to two floppy devices
Keyboard and Mouse	Mini-DIN PS/2 Keyboard and Mouse connector x 1 Internal keyboard pin header x 1
IR Interface	Supports IrDA header x 1
Audio (Daughter Board)	Realtek ALC655 AC97 Codec, MIC-in/Line-in/Line-out/CD-in (optional)

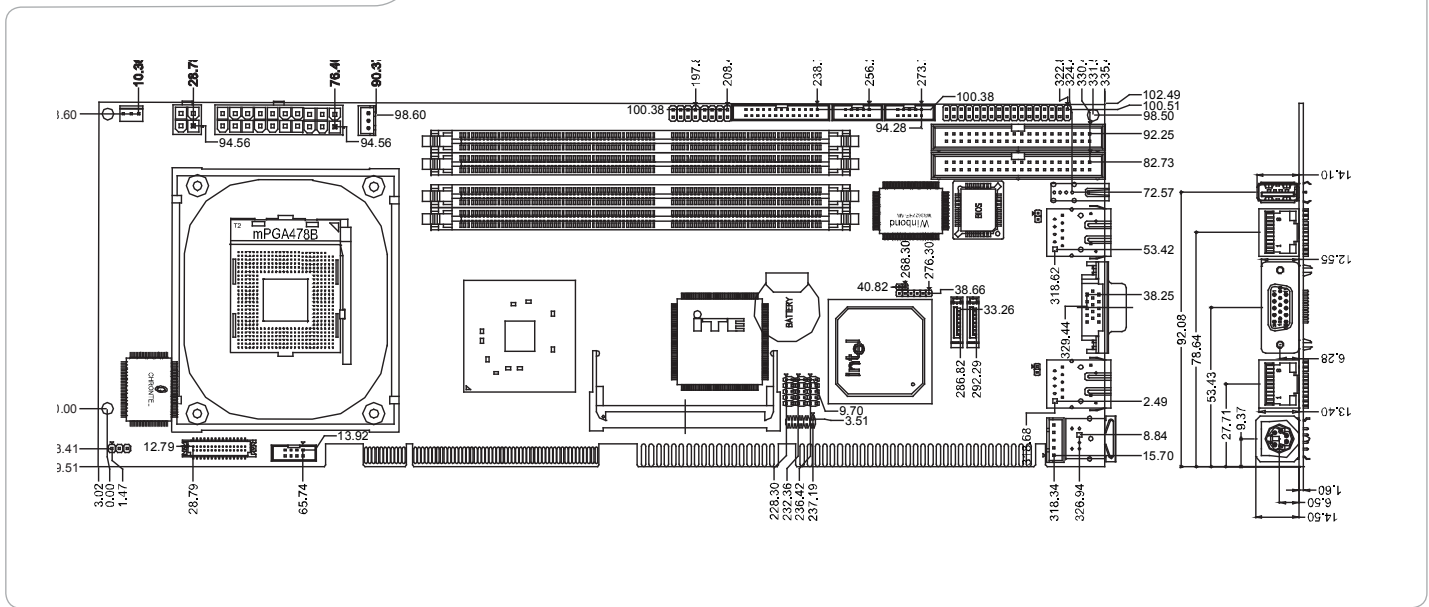
### Packing List

- **1701340704**  
Flat Cable, 34P, 70cm, GRAY for Floppy Disk Drive
- **1701400453**  
Cable, 40P 2.54mm IDC w/Nose w/Fold, 40P 2.54mm IDC w/ Nose w/Fold, 45cm, Blue ATA-100
- **1709100201**  
USB Cable, 20cm 2.0mm, w/Bracket
- **1700060192**  
Cable, 6P-6P-6P, 19cm, IVORY PS2/ Keyboard&Mouse
- **1701260307**  
Flat Cable, 9P/DB9P MALE&25P DB25P FEMALE, 10P 2mm & 26P 2mm/ IDC NO FOLD, 30cm, w/Bracket
- **1701100305**  
Flat Cable, 9P/DB9P MALE, 10P/ 2.0mm Pitch/ IDC NO FOLD, 30cm, w/Bracket
- **1703030501**  
Wire, 3P 2.5mm Housing, 3P 2.5mm Housing, 50cm
- **1709070780**  
SATA Cable: 7P Pitch 1.27mm, 78cm
- **Quick Installation Guide**
- **Utility CD**
- **FSB-865G**

### Ordering Information

- **TF-FSB-865G-A11-V**  
Full-size CPU Card, Socket 478 for Pentium® 4, VGA, 7 USBs, CF, AC97, SATA, ATX, Rev. A1.1
- **TF-FSB-865G-A11-VE**  
Full-size CPU Card, Socket 478 for Pentium® 4, VGA, 1 LAN, 7 USBs, CF, AC97, SATA, ATX, Rev. A1.1
- **TF-FSB-865G-A11-VG**  
Full-size CPU Card, Socket 478 for Pentium® 4, VGA, 1GbE LAN, 7 USBs, CF, AC97, SATA, ATX, Rev. 1.1
- **TF-FSB-865G-A11-E2**  
Full-size CPU Card, Socket 478 for Pentium® 4, VGA, 2 LANs, 7 USBs, CF, AC97, SATA, ATX, Rev. A1.1
- **TF-FSB-865G-A11-EG**  
Full-size CPU Card, Socket 478 for Pentium® 4, VGA, 1 LAN, 1 GbE LAN, 7 USBs, CF, AC97, SATA, ATX, Rev. A1.1
- **TF-FSB-865G-A11-G2**  
Full-size CPU Card, Socket 478 for Pentium® 4, VGA, 2 GbE LANs, 7 USBs, CF, AC97, SATA, ATX, Rev. 1.1
- **TF-FSB-865G-A11-F**  
Full-size CPU Card, Socket 478 for Pentium® 4, VGA, LVDS, TV-out, 2 GbE LANs, 7 USBs, CF, Mini PCI, AC97, SATA, ATX, Rev. A1.1
- **TF-FSB-865G-A11-RF**  
Full-size CPU Card, Socket 478 for Pentium® 4, VGA, LVDS, TV-out, 2 GbE LANs, 7 USBs, CF, Mini PCI, AC97, SATA, RAID, ATX, Rev. A1.1

## Dimension Unit: mm



## Passive Backplane Options

P/N	Description	Master Interface	Slots	Power Connector, ATX Extend Function
TF-BP-213RG-P4-A11	Rackmount, PICMG, 13-slot R.PCI Backplane, 4 PCI/7 ISA, Single Segment, AT/ATX, Rev. A1.1	PICMG	4/8/2 (PCI/ISA/PICMG)	AT, ATX, 3-pin ATX extend
TF-BP-214SG-P4-A11	Rackmount, PICMG, 14-slot Backplane, 4 PCI/8 ISA, Single Segment, AT/ATX, Rev. A1.1	PICMG	4/9/2 (PCI/ISA/PICMG)	AT, ATX, 3-pin ATX extend
TF-BP-214SG-P7-A11	Rackmount, PICMG, 14-slot Backplane, 7 PCI/5 ISA, Single Segment, AT/ATX, Rev. A1.2	PICMG	7/6/2 (PCI/ISA/PICMG)	AT, ATX, 3-pin ATX extend
TF-BP-214SG-P12-A11	Rackmount, PICMG, 14-slot Backplane, 12 PCI/1 ISA Single Segment, AT/ATX, Rev. A1.1	PICMG	12/2/2 (PCI/ISA/PICMG)	AT, ATX, 3-pin ATX extend
TF-BP-208SG-P4-A11	Wallmount, PICMG, 8-slot Backplane, 4 PCI/2 ISA, Single Segment, AT/ATX, Rev. A1.1	PICMG	4/3/2 (PCI/ISA/PICMG)	AT, ATX, 3-pin ATX extend
TF-BP-208SG-P7-A11	Wallmount, PICMG, 8-slot Backplane, 7 PCI/0 ISA, Single Segment, AT/ATX, Rev. A1.1	PICMG	7/0/1 (PCI/ISA/PICMG)	AT, ATX, 3-pin ATX extend
TF-BP-206VG-P4-A11	Rackmount, PICMG, 6-slot Backplane, 4 PCI/0 ISA, Single Segment, AT/ATX, Rev. A1.1	PICMG	4/0/1 (PCI/ISA/PICMG)	AT, ATX, 3-pin ATX extend
TF-BP-206VG-P2-A10	Rackmount, PICMG, 6-slot Backplane, 2 PCI/3 ISA, Single Segment, ATX, Rev. A1.0	PICMG	2/3/1 (PCI/ISA/PICMG)	AT, ATX, 3-pin ATX extend
TF-BP-206SG-P4-A11	Wallmount, PICMG, 6-slot Backplane, 4 PCI, 2 ISA, Single Segment, ATX, Rev. A1.1	PICMG	4/2/2 (PCI/ISA/PICMG)	AT, ATX, 3-pin ATX extend
TF-BP-206SG-P3-A11	Wallmount, PICMG, 6-slot Backplane, 3 PCI, 3 ISA, Single Segment, ATX, Rev. A1.0	PICMG	3/3/2 (PCI/ISA/PICMG)	ATX, 3-pin ATX extend

## Optional Accessories

- **TF-PER-U00A**  
AC97 Audio Daughter Board
- **1759200165**  
(TF) CPU Cooler Fan, for Socket 478, Pentium® 4 3.2G, 3P, 12V
- **1759200332**  
(TF) CPU Cooler Fan + Heat Sink, Socket 478, 3P, 12V, 1U Low Profile
- **1701400802**  
Flat Cable, 40P-40P-40P(UL:2651, 15cm + 65cm), 80cm for ATA33
- **1701400800**  
Flat Cable, 40P-40P-40P(UL:20674, 15cm + 65cm), 80cm for ATA100
- **1701400702**  
Flat Cable, 40P ATA-100 2.54mm, BLUE/GRAY/BLACK 70cm for Hard Disk Drive
- **1703300351**  
LCD Cable, 30-pin to 20-pin, 35cm, for Hyundai HT12X11-200 12.1"/ 1024 x 768/ 3.3V LVDS Panel
- **1703300352**  
LCD Cable, 30-pin to 30-pin, 35cm, for Hyundai HT17E11-300 17"/ 1280 x 1024/ 3.3V LVDS Panel, Samsung LTM150XH-L04 15.1"/ 1024 x 768/ 3.3V LVDS Panel