
Chapter 1. Overview of the 7563 Passive Backplane System

The IBM 7563 Passive Backplane System (computer) has been designed for use over a long life in an environment of constantly advancing technology. It is engineered for flexibility, growth, and upgradability. The chassis and covers are designed to be used for many different computer configurations—whatever suits the needs of the user. Some of its feature highlights are:

- Can accommodate several different microprocessors.
- Can house a variety of standard-width input/output (I/O) devices, and a single hard disk and diskette drive.
- Has one slot for a single-board computer (SBC) that has ISA (industry standard architecture) and PICMG (PCI Industry Computer Manufacturer's group) connections.
- Has a passive backplane with a total of seven slots available for adapters as follows:
 - One half-length ISA slot, which is used for the Universal Serial Bus (USB) connectors
 - Four full-length ISA slots
 - One full-length ISA or PCI slot
 - One full-length PCI slot
- Has a variety of features for data security and power management.

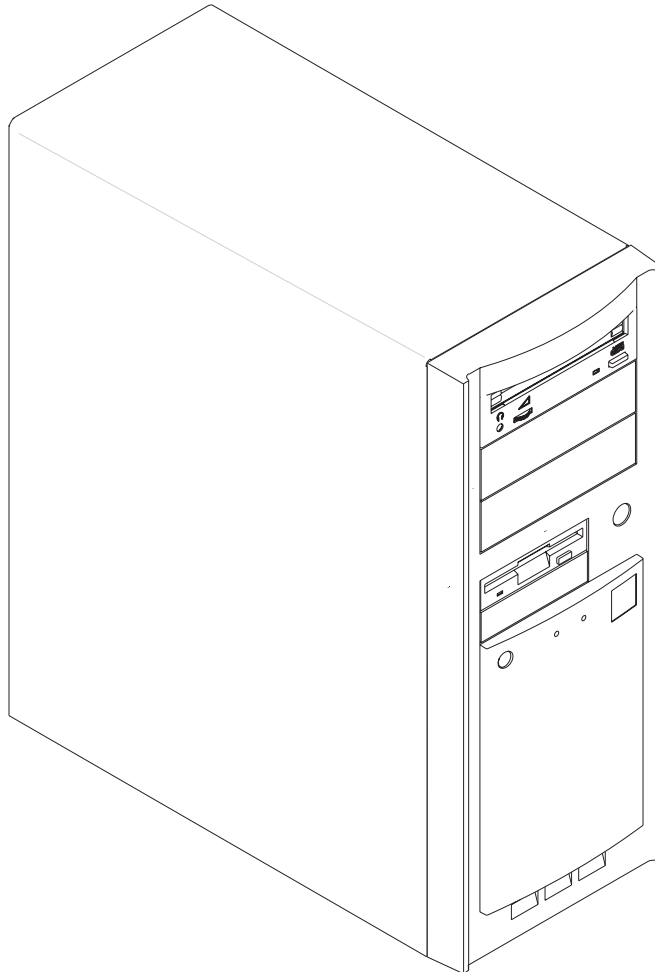


Figure 1-1. IBM 7563 Passive Backplane System

General Layout of Components

Figure 1-2 and Figure 1-3 on page 1-3 show the front and rear views of the 7563 Passive Backplane System. These figures illustrate the general layout of the system unit. The general layout is the same for all configurations, although individual components (input, output, and storage devices) can be changed or added.

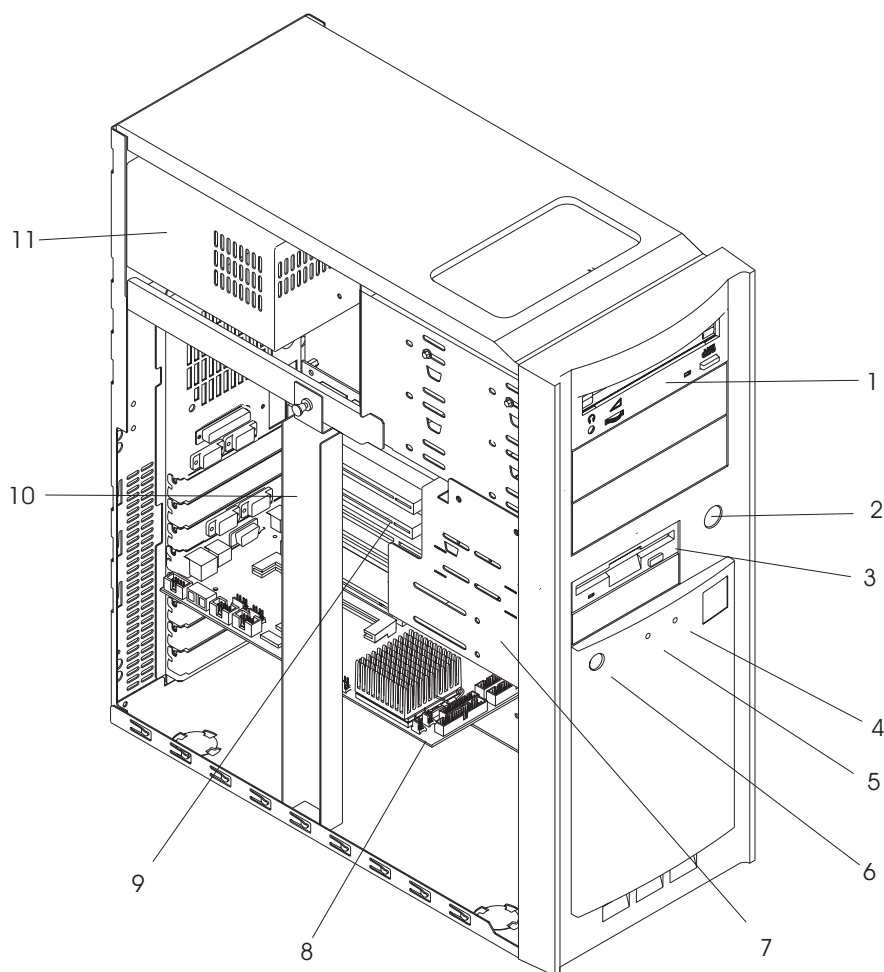


Figure 1-2. General Component Layout 1

- 1 CD-ROM drive
- 2 On/off switch
- 3 3.5-inch diskette drive
- 4 Hard disk activity LED
- 5 Power-on LED
- 6 Reset switch
- 7 Disk drive cage (3.5-inch drives only)
- 8 Single-board computer
- 9 Backplane
- 10 Card retainer bracket
- 11 Power supply

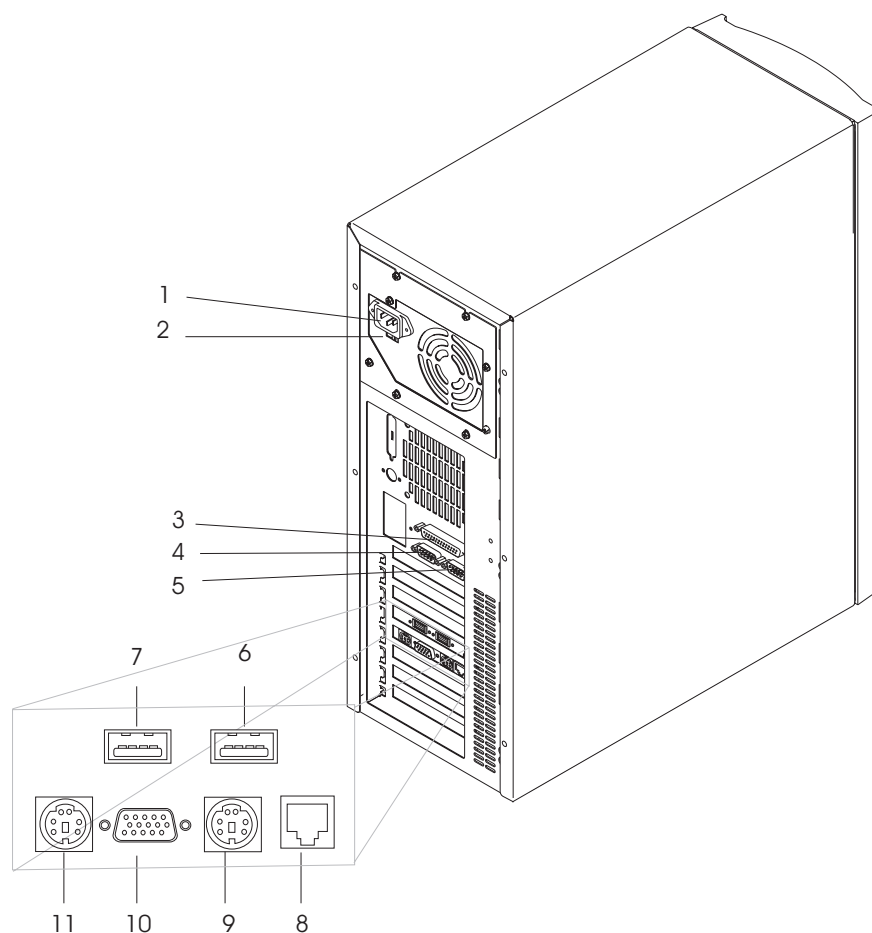


Figure 1-3. General Component Layout 2

- 1** Power input connector
- 2** 110/220 voltage selector switch (200-watt power supply only)
- 3** Parallel port connector
- 4** Serial port B connector
- 5** Serial port A connector
- 6** USB port B connector
- 7** USB port A connector
- 8** 10 BaseT/100 BaseTX Ethernet port (optional)
- 9** Keyboard connector
- 10** Video connector
- 11** Mouse connector

Specifications

Nominal physical specifications are as follows.

- Width: 195 millimeters (7.7 inches)
- Depth: 430 millimeters (17 inches)
- Height: 508 millimeters (20 inches)
- Weight: 13.6 kilograms (30 pounds) minimum
(The actual weight depends on the options installed.)

Power Supply

- 200 or 330 watts output—ac input only; voltage range manually switchable. Acceptable inputs are:
 - 100 to 127 (nominal) volts ac; 50/60 Hz; 6 Amps (200-W)/8 Amps (330-W)
 - 200 to 244 (nominal) volts ac; 50/60 Hz; 3 Amps (200-W)/4 Amps (330-W)

The loading of all additional adapters and drives to be installed in the system unit must not exceed the following limits:

	200 W	330 W
+3.3 V dc	(see note)	5.5 Amps
+3.52 V dc	4.5 Amps	(see note)
+5 V dc	11.0 Amps	14.0 Amps
+12 V dc	3.5 Amps	7.6 Amps
–5 V dc	0.5 Amps	0.2 Amps
–12 V dc	0.5 Amps	0.4 Amps

Note: The 200-watt supply produces 3.52 V dc; the 330-watt produces 3.3 V dc. The total power available for 3.x V and 5.0 V combined:

60 W for 200-W power supply
170 W for 330-W power supply

Heat Output

Approximate maximum heat output in watts and British Thermal Units (BTUs) per hour.

- With 200-watt power supply—260 W (887 BTU/hour)
- With 330-watt power supply—430 W (1467 BTU/hour)

Environment

- Ambient air temperature
 - Operating: 0° to 40°C (32° to 104°F)
 - Non-Operating: 0° to 55°C (32° to 131°F)
 - Shipping: –40° to 60°C (–40° to 140°F)
- Relative humidity
 - Operating: 5% to 90% (non-condensing), wet bulb: 29.4°C (85°F)

Agency and Standards Compliance

- Equipment Approvals and Certifications
 - UL Listed (UL 1950, 3rd Edition, U.S Legal-OSHA)
 - CSA Certified (CSA22.2 No. 950-M95)
 - VDE or TUV (EN 60950/IEC 950) 2nd Edition
 - FCC Class A
 - VCCI Class A
 - CISPR 22 Class A
 - CE Mark Class A (EN 55022)
 - AS/NZS 3548 Class A
 - Korean MIC Notice No. 1996-78

- European Standards Compliance
 - Safety (IEC 950, EN 60950)
 - Shock while operating (IEC 68-2-27)
 - 30 G, 1/2 sine wave for 3 milliseconds duration
 - Vibration (IEC 68-2-6)
 - 5 to 500 Hz random at 0.27 G RMS
 - Electromagnetic compatibility

Radiated and conducted EMI	EN 55022	
Conducted immunity	EN 50141, Level 3	
Radiated electromagnetic susceptibility	EN 50140, Level 3	10 V/m
Power line harmonics	EN 61000-3-2	
Flicker	EN 61000-3-3	
Electrostatic discharge	EN 61000-4-2	4 kV contact 8 kV air-gap
Electrical fast transients	EN 61000-4-4, Level 3	
Power frequency magnetic field immunity	EN 61000-4-8, Level 4	

