

1. DESKTOP COMPUTERS

No	Items	Minimum Specification
1	Brand	Known brand
2	Processor	Intel® Core™2 Duo Processor 2.0GHZ and above
3	Memory	1 GB DDR expandable to 8GB
4	Cache memory	4 MB L2 cache
5	Front speed bus	1066 MHz
6	Chipset	Intel 965 Express Chipset
7	Storage	160 GB SATA Hard Disk Drive 1.44" floppy Disk Drive 48x/52X DVD+CDR-W
8	Monitor	17- inch color, CRT
9	Video adaptor	SVGA, 128 MB RAM
10	Input-Devices	Optical Mouse with mouse pad 105 Key Standard Multimedia Keyboard
11	I/O Ports:	6 USB 2.0 ports, 1 serial ports, 1 parallel port, 1 VGA out, 1 Microphone in, 1 Stereo Line in, 1 Speaker/Line-out, 1 Head phone
12	Communication	9 pin serial connector 25 pin parallel connector 2 PCI expansion Slots
13	Network	10/100 /1000 Gigabit Ethernet
14	Modem	56K internal Modem
15	Audio	Integrated analog device AD 1981 AC97 CODEC audio software, external connectors for stereo in and out for amplified speakers
17	Power	220V/50Hz Power Cable Fit for Ethiopian sockets
18	Speakers	Should be included
19	Operating System	Genuine Windows® XP Professional with license
20	Software	Genuine Microsoft office professional edition 2003, antivirus, Amharic font software
21	Accessories	Driver CDs, Restore CDs Manuals Power Cable Proper for Ethiopia
22	Warranty	Minimum one year

2. Printer

No.	Features	Description
1	Printer type	Laser, black printer
2	Print quality, black	1200X1200 dpi
3	Processor speed	460MHz
4	Memory	64MB
5	Cartridges	1(black)
6	Print speed, black	40 ppm
7	First page out(black)	8 sec
8	Paper tray	2
9	Input capacity	Up to 600 sheets
10	Duplex printing	Automatic
11	Media sizes	A4
12	Media types	Pager (bond, color, letterhead, plain, preprinted, pre punched, recycled, rough), envelopes, labels, cardstock, transparencies
13	Connectivity	Ethernet 100 BaseT(100mbps)
14	Operating systems compatibility:	Windows® 98, Me, 2000, XP Home, XP Professional, Windows vista home, Windows vista professional, 2003 and 2008 server
15	Installation Software:	Print driver and Installation Software on CD-ROM for Windows® 98, Me, 2000, XP Home, XP Professional, Windows vista home, Windows vista professional, 2003 and 2008 server
16	User manual:	Printed installation, operation and service manual
17	Warranty:	Minimum One Year

Minimum LaserJet Printer Specification

No.	Features	Description
1	Printer type	Laser, black printer
2	Print quality, black	1200X1200 dpi
3	Processor speed	400MHz
4	Memory	32MB
5	Cartridges	1(black)
6	Print speed, black	26 ppm
7	First page out(black)	8 sec
8	Paper tray	2
9	Input capacity	Up to 550 sheets
10	Duplex printing	Automatic
11	Media sizes	A4
12	Media types	Pager (bond, color, letterhead, plain, preprinted, pre punched, recycled, rough), envelopes, labels, cardstock, transparencies
13	Connectivity	Ethernet 100 BaseT(100mbps)
14	Operating systems compatibility:	Windows® 98, Me, 2000, XP Home, XP Professional, Windows vista home, Windows vista professional, 2003 and 2008 server
15	Installation Software:	Print driver and Installation Software on CD-ROM for Windows® 98, Me, 2000, XP Home, XP Professional, Windows vista home, Windows vista professional, 2003 and 2008 server
16	User manual:	Printed installation, operation and service manual
17	Warranty:	Minimum One Year

3. UPS (Uninterruptible power supply)

No.	Features	Description
1	Output:	
	Out put power capacity:	400 watts / 750 VA
	Out put voltage:	230V
	Output connections:	<ul style="list-style-type: none"> • 1 IEC 320 C13 (Surge protection) • 3 IEC 320 C13 (Battery Backup)
2	Input:	
	Input voltage:	230 V
	Input connections:	IEC-320 C14
	Cord length:	2 meters
3	Battery	Typical backup time: at half load (200 watts) 15 minutes
4	Communications and management:	
	Interface ports:	DB-9 RS-232 and USB
	Control panel:	LED status display with on line, on battery, replace battery and overload indicators
	Audible alarm:	alarm when on battery, distinctive low battery alarm, overload continuous tone alarm
5	Quantity	350
6	Warranty:	Minimum One Year

4. Scanner

Scanner type	ADF(automatic document feeder) network scanner
Scanning mode	Simplex /Duplex: colour / Monochrome / automatic
Image sensor type	Dual colour CCDS (Charged couple devices)
Light source	White cold cathode discharge lamp
Scan speed	200dpi
Scanning range	Minimum 2.0+X2.9+ Maximum 8.5+X 14.0+(up to 34 in long document mode)
Paper weight(Thickness)	13.9 to 34.0 lb
Paper chute capacity	Max. 50 sheets(20lb), active loadability
Optical resolution	600 dpi
Output resolution	50 to 60 dpi
Output methods	Email attachments, send as fax, save to network folder
File format outputs	TIFF, MTIFF, JPEG, PDF, Searchable PDF, Password protected PDF
Authentication system requirement	LDAP required for multi-user login authentication <ul style="list-style-type: none">• Windows 2003 server active directory• Windows server 2008 server
Network Interface	10 base-T, 100Base-TX
Network Protocols	TCP/IP, DHCP, SMTP, SMB, LDAP, SNTF
Language support	English
Quantity	32
Warranty	Minimum one year

5. DIGITAL PHOTO CAMERA SPECIFICATIONS

-7.2-megapixel CCD

- Carl Zeiss Vario-Tessar 3x optical zoom lens
- 35mm equivalent lens focal length: 38-114mm
- 2.5" color LCD
- Resolution:3072 x 2304; 3072 x 2048; 2592 x 1944; 2048 x 1536; 1280 x 960; 640 x 480
- MPEG Movie VX with audio
- 14-bit DXP A/D conversion
- five-area multipoint autofocus and continuous autofocus
- shutter speed: (15 - 1/1000 seconds)
- variable ISO sensitivity and selectable ISO 100, 200 and 400
- macro mode
- built-in flash
- built-in mono microphone and speaker
- USB 2.0 Hi-Speed interface (backward-compatible with older USB 1.1 interface)
- compatible with Memory Stick and Memory Stick PRO (32MB Memory built-in)
- audio/video output for connection to a TV
- Movie (with sound) recording mode.

6.Fax Machine

Specification

FAX unit type

Type	Facsimile, copier and printer
Compatibility	Group 3
Applicable line	PSTN
Modem speed	33.6K bps (Super G3) with Automatic fallback
Print technology	Mono Laser beam printing
Scanner type	Mono flatbed with Automatic Document Feeder (ADF)
Body colour	Cool White

FAX scanning features

Automatic document feeder	50 sheets
Document size	216mm(Max), 148mm(Min)
Effective scanning width	208 mm
Scanning speed	4.3 sec/page
	14ppm
Fax resolution	Ultra fine: 16 pels x 15.4 lines / mm
	Super fine: 8 pels x 15.4 lines / mm
	Fine: 8 pels x 7.7 lines / mm
	Standard: 8 pels x 3.85 lines / mm
Image processing system	UHQ (Ultra High Quality)
Halftone	256 shades of grey scale
Canon Express protocol	No

FAX printing features

Printing method	Mono Laser Beam Printing
Print speed	14 pages per minutes
Print resolution	600 x 600 dpi
Smoothing	Yes
Paper capacity	1 x 250 sheets paper cassette
Print cartridge	Cartridge T
Print cartridge yield	3,500 pages (based on 5% coverage) (5,250 pages with Toner Save)
Page collated print(on reception)	Yes (Face down print)
Paper output tray capacity	50 sheets
Printing width	206mm
Toner save mode	Yes
Auto image reduction on reception	Yes (100 to 70 %)

Transmission and reception features

Transmission speed	3 seconds per page with 33.6K bps modem (based on Canon FAX standard chart No.1 and ITU-T chart No.1)
Compression method	MH, MR, MMR, JBIG
Direct transmission	Yes
Memory transmission	Yes
Quick memory transmission	No
FAX memory	250 pages (4MB) based on ITU-T Standard Chart No.1
Memory backup	Yes, approx. 1 hour
Optional memory	No
Memory reception	Yes
Dual access	Yes
Error correction mode(ECM)	Yes
Delayed transmission	Yes (131 locations)
Sequential broadcast	Yes (131 locations)
Polling Transmission	Yes (Memory)
Reception	Yes (Manual)
Sub-address transmission	No
Batch transmission	No
Error re-transmission	No
Relay broadcasting command	No
Relay broadcast	No
Fax transfer	No
Fax retrieval(Bulletin board)	No
Reception footer	No
Verification stamp	No

Telephony features

One touch dials	30 locations
Coded dials	100 locations
Group dials	Max. 129 locations
Program dial	No
Redial	Yes (Automatic and manual)
Dial search	Yes
FAX/TEL auto switch	Yes
Answering machine hook up	Yes

Remote reception	Yes
On hook key	Yes
Hold key	No
Built in answering machine	No
Speaker phone	No
Caller ID	No
Telephone handset	Option
Type	Tel 6

Copier features

Copy resolution	Scan: 600 x 600 dpi Print: 1200 x 600 dpi
Copy speed (Mono)	14 copies per minutes (A4)
Multiple copy	Up to 99 copies
Reduction	Yes
Enlargement	Preset ? 50%, 72%, 81%, 86%, 115%, 141%, 200%

Other features

Internet FAX function (LAN type)	No
Energy saver key	Yes

General features

Dimensions without trays(Wx Dx H)	444(W) x 457(D) x 410(H) mm
Dimensions with trays(W x D x H)	543(W) x 457(D) x 453(H) mm
Installation space(with trays & handset)	625(W) x 457(D)
Weight	15.3kg (w/o cartridge) 16.1kg (with cartridge)
Power source	AC 200-240V 50-60Hz
Power consumption	Approx. 6W (Energy Save Mode), Approx. 11W (standby), Approx. 670W (Max)
Acoustic Noise Levels	Standby: 30dB(A) max Copy: under 50dB(A) max

Printer Features

Printer type	Mono Laser
Printer speed	14 papes per minute (A4)
Print resolution	600 x 600 dpi (1200 x 600 dpi enhanced)
Smoothing	Yes
Toner save	Yes
Paper sizes	A4, LTR, Legal
Duplex (Option)	No
Supplied Drivers	Canon Advanced Raster Printing System (CARPS) for Windows 98, Me, 2000 and XP
Printer	No
Fax	No

Network features

Type	USB
Network protocols	No

7 Photo Copy Machine

- **Type:** - Digital A3 copier
- **Copy Sizes:** - Cassette=A5 ó A3, Bypass=A5R-A3, envelopes
- **Resolution:** - Scanning=600dpi x 600dpi, Copying: 1200dpi equivalent x 600dpi
- **Multiple copies:** - 1 to 99 sheets
- **Copy Speed:** - A4: 16cpm, A3: 10cpm
- **First out put speed:** - less than 8 seconds
- **Magnification:** - Zoom: 50-200%, Fixed: 50%, 70%, 100%, 141%, 200%
- **Memory:** - standard 128MB to 256MB
- **CPU:** - Minimum 192 MHz
- **Paper input capacity:** - standard=250 sheets x 2 cassettes,
- **Power Supply :** - 220V AC to 240V AC +/- 10% (50/60Hz)
- **Power Consumption:** - 1.6kw max
- **Accessories:** - Toner, developer if necessary, Getting Started Guide/CD, power cord
- **Warranty:** - Minimum One Year

8. Minimum Specification of Lap Top Computer

- **dual core Intel centrino processor 2.2GHZ and above :Mobile Technology**
- **Memory: 2GB DDR RAM**
- **Hard Disk Drive: 120 GB Hard Disk Drive**
- **Display: 15.4” XGA TFT display**
- **Multimedia: Audio system with two built in speakers MS-sound compatible**
- **Sound System: Toshiba bass enhanced sound system with SRS surround, build in stereo speakers**
- **Storage Devices: DVD-RW/CR-RW**
- **Network Card: 10/100 mbps Ethernet card: Wireless LAN**
- **1 s-video TV out, Three USB and 1 VGA**
- **Internal modem-56K**
- **User hardware manual all in one (Utility CD, Recovery CD and Original Win XP)**
- **Removable, Rechargeable lithium Ion(Li-ion) High battery capacity-high battery performance**
- **AC adapter and power cable**
- **Preloaded software’s: Genuine Win XP professional , MS Office 2003, Visual Geez and Power Geez, etc**
- **Carrying case Included best quality**
- **Including Optical USB mouse and pad**
- **Flash Memory**

- **Integrated Web Cam**

Warranty: Minimum One Year

9.. Network Cable

- UTP cat 5E or above that is TIA/EIA verified
- should run 90 meters without signal degradation.

10. Divider(Original and Known Brand)

- Voltage:220V-240V
- Current: 15A
- Frequency:50Hz
- Must have at least 6 outlets
- All outlets must have status LED
- Must have fuse

11. Trunk

- (25 x 40)mm size or
- (40 x 60)mm

12. Voltage Stabilizer

- **Input voltage:** 160-270V
- **Output voltage:** 220V
- **Power:** 800VA
- **Phase:** single phase
- Frequency:** 50/60Hz
- Ambient Temperature:** 5-40⁰c
- Ambient Humidity:** less than 90%