## General Specifications for Basic Computer Hardware for Comments **Minimum Specifications for AIOs**

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Parameters	(Normal Office Function)		Mid Level Desktop PC (Normal Office Function)		High Level Dekstop PC (Middle/ Higher Mgmt/ Mid Scale Programming/ Development)	
Processor Make	Intel Core i3 12th Gen or higher	AMD Ryzen™ 3 Series Desktop Processors or higher	Intel Core i5 12th Gen or higher	AMD Ryzen™ 5 Series Desktop Processors or higher	Intel Core i7 12th Gen or higher	AMD Ryzen™ 7 Series Desktop Processors or higher
Generation	12th or Higher	5000 Series or Higher	12th or Higher	5000 Series or Higher	12th or Higher	5000 Series or Higher
CPU Architecture	x64	CPU Socket: AM4 or higher	x64	CPU Socket: AM4 or higher	x64	CPU Socket: AM4 or higher
Speed (Min Base Freq)	2.2 Ghz or Higher	3.8 Ghz or Higher	2.2 Ghz or Higher	3.8 Ghz or Higher	2.5 Ghz or Higher	3.8 Ghz or Higher
Max. Boost Clock Freq	4.10 Ghz or Higher	4.20 Ghz or Higher	4.10 Ghz or Higher	4.20 Ghz or Higher	4.4 Ghz or Higher	4.5 Ghz or Higher
CPU Cores	Min 4	Min 4 Multithreaded Cores	Min 4	Min 6 Multithreaded Cores	Min 6	Min 8 Multithreaded Cores
CPU Threads	Min 8	Min 8	Min 8	Min 12	Min 12	Min 16
L3 Cache	12 MB or Higher	8 MB or Higher	12 MB or Higher	16 MB or Higher	12 MB or Higher	16 MB or Higher
RAM	8 GB DDR4 or Higher expandable upto 32 GB	8 GB DDR4 or Higher	8 GB DDR4 or Higher expandable upto 64 GB	8 GB DDR4 or Higher	16 GB DDR4 or Higher	16 GB DDR4 or Higher
ROM/ HDD	256 GB SSD	expandable upto 32 GB 256 GB SSD	256 GB SSD	expandable upto 64 GB	expandable upto 64 GB	expandable upto 64 GB
KOWI/ HDD	1 TB Sata HDD	1 TB Sata HDD	1 TB Sata HDD	256 GB SSD 1 TB Sata HDD	256 GB SSD 1 TB Sata HDD	256 GB SSD 1 TB Sata HDD
Chipset/ Mother Board	Intel 600 Series (H670 or Q670 or W680 or Z690 or B660 or higher)	(Pro 500 or Pro 565 or Higher)	Intel 600 Series (H670 or Q670 or W680 or Z690 or higher)	(Pro 500 or Pro 565 or Higher)	Intel 600 Series (H670 or Q670 or W680 or Z690 or higher) or Intel 700 Series (H770, W790, Z790 or higher)	(Pro 500 or Pro 565 or Higher)
Display Size	23.8" or Higher FHD	23.8" or Higher FHD				
Display Type	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal or higher)	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal or higher)	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal or higher)	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal or higher)	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal or Higher)	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal or higher)
Dedicated Graphic Card	-		-		Compatibile Graphic Card with 8GB or Higher DDR RAM	
Connectivity	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on- board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher
Keyboard	Wired USB of Same Make as Desktop OEM	Wired USB of Same Make as Desktop OEM	Wired USB of Same Make as Desktop OEM	Wired USB of Same Make as Desktop OEM	Wired/Wireless USB of Same Make as Desktop OEM	Wired/Wireless USB of Same Make as Desktop OEM
Mouse	Wired USB of Same Make as Desktop OEM	Wired USB of Same Make as Desktop OEM	Wired USB of Same Make as Desktop OEM	Wired USB of Same Make as Desktop OEM	Wired/Wireless USB of Same Make as Desktop OEM	Wired/Wireless USB of Same Make as Desktop OEM
Factory preloaded OS	Windows 11 Professional 64 bit OS	Windows 11 Professional 64 bit OS	Windows 11 Professional 64 bit OS	Windows 11 Professional 64 bit OS	Windows 11 Professional 64 bit OS	Windows 11 Professional 64 bit OS
Warranty	3Yrs comprehensive onsite	3Yrs comprehensive onsite				

Single Function & Multi Function Printer Minimum Specs (A4 size)						
Parameters	MFP- (PSC) Mono	MFP- (PSC) Color	Printer (Mono)	Printer (Color)		
Print Technology	Laser/ Inktank	Laser/ Inktank	Laser/ Inktank	Laser/Inktank		
Type of Printing	Mono	Color	Mono	Color		
Type of Machine	Multi Function	Multi Function	Single Function	Single Function		
Paper Size	A4/Legal	A4/Legal	A4/Legal	A4/Legal		
Flatbed Size	A4/Legal	A4/Legal	NA	NA		
Print Speed (mono)	18 PPM or higher	18 PPM or higher	18 PPM or higher	18 PPM or Higher		
Automatic Document Feeder	Optional (as per need)	Optional (as per need)	Not Applicable	Not Applicable		
Duplex Feature	Yes (Auto)	Yes (Auto)	Optional	Optional		
Network Connectivity	Yes (LAN)	Yes (LAN)	Optional	Optional		
USB Port	Yes	Yes	Yes	Yes		
Duty Cycle	Min 10000 per month	Min 10000 per month	Min 5000 per month	Min 5000 per month		
Onsite OEM Warranty	Min 3 Yrs	Min 3 Yrs	Min 3 Yrs	Min 3 Yrs		
Wireless Connectivity	Yes	Yes	Yes	Yes		
RAM	Min 64 Mb	Min 64 Mb	Min 64 Mb	Min 64 Mb		

Note: Inputs are sought for New Cartridge Yield in case both Laser and Inktanks

Parameters	Color Copier	Mono Copier	
Printer Type:	Print, Scan, Copy with ADF	Print, Scan, Copy with ADF	
Maximum Print Resolution:	4800 x 1200 dpi (with variable-sized droplet technology)	4800 x 1200 dpi (with variable-sized droplet technology)	
Paper Size (Original/Image):	A3/A3	A3/A3	
Processor:	1.2 GHz Dual Core Processor or better	1.2 GHz Dual Core Processor or better	
Minimum RAM Size (GB)	4GB	4GB	
Automatic Duplex Printing :	up to A3 size	up to A3 size	
РРМ	Minimum 20 PPM	Minimum 20 PPM	
Minimum Hard Disk Capacity (GB):	256 GB	256 GB	
Document Feeder:	Platen or DADF or RADF or SPDF as per need	Platen or DADF or RADF or SPDF as per need	
Platen/Flatbed Size:	A3	A3	
Print Direction:	Bi-Directional Printing, Uni -Directional Printing	Bi-Directional Printing, Uni -Directional Printing	
Cartridge Technology:	Separate Drum and Toner	Separate Drum and Toner	
m	600 x 600 dpi or Higher	600 x 600 dpi or Higher	
Max copies :	999 copies	999 copies	
Reduction / Enlargement:	25-400% , Auto Fit Function	25-400% , Auto Fit Function	
Scan Functon:	Flatbed colour image scanner	Flatbed colour image scanner	
Optical resolution:	600 x 600 dpi or Higher	600 x 600 dpi or Higher	
Networking:	Ethernet 10/100/1000	Ethernet 10/100/1000	
Number of Main Paper Tray:	2	2	
Main Paper Tray Minimum Capacity (Number):	500	500	
Minimum By Pass Tray Capacity:	100	100	
Yield of the cartridge supplied with Machine in terms of number of prints:	atleast 10000	atleast 10000	
Life of Drum in terms of number of Prints:	atleast 50000	atleast 50000	
Trolley with castor wheels:	Optional (as per need)	Optional (as per need)	
Duty Cycle (No of Prints/Month)	50000	50000	
Warranty:	3 Year Comprehensive onsite warranty	3 Year Comprehensive onsite warranty	

		Minimu	ım Specifications for	Desktop PC			
Parameters	Entry Level Desktop PC Mid Level Desktop PC (Normal Office Function) (Normal Office Function)		Desktop PC	High Level Dekstop PC (Middle/ Higher Mgmt/ Mid Scale Programming/ Development)			
Processor Make	Intel Core i3 12th Gen or higher	AMD Ryzen™ 3 Series Desktop Processors or higher	Intel Core i5 12th Gen or higher	AMD Ryzen™ 5 Series Desktop Processors or higher	Intel Core i7 12th Gen or higher	AMD Ryzen™ 7 Series Desktop Processors or higher	
Generation	12th or Higher	5000 Series or Higher	12th or Higher	5000 Series or Higher	12th or Higher	5000 Series or Higher	
CPU Architecture	x64	CPU Socket: AM4 or higher	x64	CPU Socket: AM4 or higher	x64	CPU Socket: AM4 or higher	
Speed (Min Base Freq)	2.2 Ghz or Higher	3.8 Ghz or Higher	2.2 Ghz or Higher	3.8 Ghz or Higher	2.5 Ghz or Higher	3.8 Ghz or Higher	
Max. Boost Clock Freq	4.10 Ghz or Higher	4.20 Ghz or Higher	4.10 Ghz or Higher	4.20 Ghz or Higher	4.4 Ghz or Higher	4.5 Ghz or Higher	
CPU Cores	Min 4	Min 4 Multithreaded Cores	Min 4	Min 6 Multithreaded Cores	Min 6	Min 8 Multithreaded Cores	
CPU Threads	Min 8	Min 8	Min 8	Min 12	Min 12	Min 16	
L3 Cache	12 MB or Higher	8 MB or Higher	12 MB or Higher	16 MB or Higher	12 MB or Higher	16 MB or Higher	
RAM	8 GB DDR4 or Higher expandable upto 32 GB	8 GB DDR4 or Higher expandable upto 32 GB	8 GB DDR4 or Higher expandable upto 64 GB	8 GB DDR4 or Higher expandable upto 64 GB	16 GB DDR4 or Higher expandable upto 64 GB	16 GB DDR4 or Higher expandable upto 64 GB	
ROM/ HDD	256 GB SSD						
	1 TB Sata HDD						
Chipset/ Mother Board	Intel 600 Series (H670 or Q670 or W680 or Z690 or B660 or higher)	(B500, Pro 500, Pro 565 or Higher)	Intel 600 Series (H670 or Q670 or W680 or Z690 or higher)	(B500, Pro 500, Pro 565 or Higher)	Intel 600 Series (H670 or Q670 or W680 or Z690 or higher) or Intel 700 Series (H770, W790, Z790 or higher)	B550, X570, and A520 with AMD Radeon or higher	
Display Size	21" or Higher FHD						
Display Type	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal or higher)	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal or higher)	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal or higher)	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal or higher)	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal or Higher)	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal or higher)	
Dedicated Graphic Card		-		_	Compatibile Graphic Card with 8GB or Higher DDR RAM		
Connectivity	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	
Keyboard	Wired USB of Same Make as Desktop OEM	Wired USB of Same Make as Desktop OEM	Wired USB of Same Make as Desktop OEM	Wired USB of Same Make as Desktop OEM	Wired/Wireless USB of Same Make as Desktop OEM	Wired/Wireless USB of Same Make as Desktop OEM	
Mouse	Wired USB of Same Make as Desktop OEM	Wired USB of Same Make as Desktop OEM	Wired USB of Same Make as Desktop OEM	Wired USB of Same Make as Desktop OEM	Wired/Wireless USB of Same Make as Desktop OEM	Wired/Wireless USB of Same Make as Desktop OEM	
Factory preloaded OS	Windows 11 Professional 64 bit OS	Windows 11 Professional 64 bit OS	Windows 11 Professional 64 bit OS				
Warranty	3Yrs comprehensive onsite						

## **Minimum Specifications for Laptop**

Parameters	Entry Level Laptop (Normal Office Function)		Mid Level Laptop (Middle/ Higher Mgmt/ Mid Scale Programming/ Development)		High End Laptop (Top Mgmt/ High End Programming/ Development)	
Processor	Intel Core i3 12th Gen or higher	AMD Ryzen™ 3 Series Processors or higher	Intel Core i5 12th Gen or higher	AMD Ryzen™ 5 Series Processors or higher	Intel Core i7 12th Gen or higher	AMD Ryzen™ 7 Series Processors or higher
Generation		5000 Series or Higher				
Speed (Min Base Freq)	2.2 Ghz or Higher	2.0 Ghz or Higher	2.5 Ghz or Higher	2.0 Ghz or Higher	1.6 Ghz or Higher	2.0 Ghz or Higher
Max. Boost Clock Freq	4.10 Ghz or Higher	4.0 Ghz or Higher	4.4 Ghz or Higher	4.0 Ghz or Higher	4.9 Ghz or Higher	4.0 Ghz or Higher
CPU Cores	Min 4	Min 4 Multithreaded Cores	Min 6	Min 6	Min 8	Min 8
CPU Threads	Min 8	Min 8	Min 12	Min 12 Multithreaded Cores	Min 16	Min 16 Multithreaded Cores
L3 Cache	12 MB or Higher	8 MB or Higher	12 MB or Higher	16 MB or Higher	16 MB or Higher	16 MB or Higher
RAM	8 GB DDR4 or Higher expandable upto 32 GB	8 GB DDR4 or Higher expandable upto 16 GB	16 GB DDR4 or Higher expandable upto 64 GB	16 GB DDR4 or Higher expandable upto 32 GB	16 GB DDR5 or Higher expandable upto 128 GB	16 GB DDR4 or Higher expandable upto 32 GB
ROM/ HDD	512 GB SSD or Higher	512 GB SSD or Higher	512 GB SSD or Higher	512 GB SSD or Higher	512 GB SSD or Higher	512 GB SSD or Higher
Display Size	13" or Higher	13" or Higher	13" or Higher	13" or Higher	13" or Higher	13" or Higher
Display Type	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal) or higher	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal) or higher	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal) or Higher	Integrated graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal) or higher	Integrated or discrete graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal) or higher	Integrated or discrete graphics processor capable of 1440 X 900 resolution, or better (1920 X 1080 or 1200 ideal) or higher
Connectivity	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher	10/100/1000 on board Integrated Gigabit Port & on-board WiFi 802.11 bgn/ac + Bluetooth 5.0 or higher
Factory preloaded OS	Windows 11 Professional 64 bit OS	Windows 11 Professional 64 bit OS	Windows 11 Professional 64 bit OS	Windows 11 Professional 64 bit OS	Windows 11 Professional 64 bit OS	Windows 10 or 11- 64-Bit Professional Edition
Warranty	3Yrs comprehensive onsite	3Yrs comprehensive onsite	3Yrs comprehensive onsite	3Yrs comprehensive onsite	3Yrs comprehensive onsite	3Yrs comprehensive onsite
Accessories	To be supplied with bagpack	To be supplied with bagpack	To be supplied with bagpack	To be supplied with bagpack	To be supplied with bagpack	To be supplied with bagpack