AIO PC Touch Unit	Specification	Comp	liance
		Yes	No
Form Factor	All-in- One with Monitor stand and VESA support (100mm)		
Chipset	Intel		
Processor	Core i5		
Graphics	Integrated Graphics		
•	1 x Display Port, 2 x Other, Supports two independent displays		
Display	24" Touch (604.5mm) Full HD 1080p (1920x1080) TFT colour, , wide viewing angle (+/- 89°), LED backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, (DP in / out combo)		
Camera	Optional 2.0-megapixel camera, fixed focus, supports 1080p, with dual array digital microphone, LED indicator, physical switch on/off, Skype for Business certified		
Memory Type	DDR4, Minimum 2 sockets		
Memory Size	16 GB		
Hard Disk Type	HDD		1
Hard Disk Size	500GB 2 x 2HDD		1
Optical Drive	None		+
WLAN	802.11n, 802.11ac and 802.11ad		+
WWAN	4G LTE		
Connectivity	Gigabit ethernet, integrated in Wi-Fi + Bluetooth combo adapter		
Power Supply Unit	150 watts, autosensing, 85% PSU		
Security	1.Security chip - Trusted Platform Module,		
Cooding	TCG 1.2-compliant		
	Chassis Intrusion Switch		
	3. a. Security slot in rear for attachment of optional cable		
	b.Lock should also lock chassis		
	Power-on, Administrator & Hard disk password		
	Boot sequence control		
	Boot sequence control Boot without keyboard and mouse		
Environmental	ENERGY STAR 6.1, EPEAT Gold rating; ErP Lot 3; GREENGUARD; RoHS-compliant; TCO Certified		
Operating System	Windows 10 Enterprise 64-bit		
Software			
Warranty	3 Years On-Site Next Business Day		
Ports	Rear ports: Four USB 3.0, ethernet (RJ-45), DisplayPort in/out combo		
	port, optional 9 pin serial		
	Side ports: Two USB 3.0, optional card reader, one headphone /		
	microphone combo jack (3.5mm)		
Multi touch	Optional Projected Capacitive Touch (PCT) technology, supports 10-		
	point touch		
Audio	High Definition (HD) Audio, two internal speakers Dolby Audio certified		
Keyboard	Full Size Keyboard (USB connector), black	İ	
Mouse	Enhanced Optical USB Wheel Mouse, black		
Plug	Red Octopus Plug (2 KETTLEHEADS & 1 CLOVER HEAD)		
Image	Transnet Software Image Installed		
Asset Tag	Transnet Asset Tag with unique number		
Lock	Cable Lock		

COMMENTS:		
VERIFIED BY:	SIGNATURE:	DATE:

Camera Unit Specification		Compliance	
		Yes	No
PROPOSED BRAND AND MODEL			
Operating Environment	0 – 40 °C, 85% or less humidity		
Dimensions	140.7 x 104.8 x 76.8mm		
Weight (body only)	Approx. 701g		
Fast continuous shooting	Capture the action at up to 10fps		
Effective Pixels	Approx. 32.5 MP		
Total Pixels	Approx. 34.4 MP		
Aspect Ratio	3:2		
Key Specifications			
Frames per second	Fast continuous shooting - up to 10 frames per second		
Scene Intelligent auto	Intelligent optical viewfinder		
Crosstype	45 cross type AF points with multi-controller		
Focus tacking	iTR focus tracking		
4K	4K filmmaking and Dual Pixel CMOS AF		
ISO	Maximum ISO 25,600		
Wi-Fi	Wi-Fi and Bluetooth		
Туре	EOS 90D		

COMMENTS:		
VERIFIED BY:	SIGNATURE:	DATE:

Desktop for Graphic D	esign Unit Specification	Comp	oliance
		Yes	No
PROPOSED BRAND AND MODEL			
Model	Retina 5K, 27-inch		
Chipset	Intel		
Processor	3.7GHz 6-core Intel Core i5 (Turbo Boost up to 4.6GHz)		
Graphics	3.7GHz,		
•	Radeon Pro 580X with 8GB of GDDR5 memory		
Display	5120-by-2880 resolution with support for one billion colors		
Camera	Two 4096-by-2304 (4K) external displays at 60Hz with support for millions of colors		
Memory Type	8GB (two 4GB) of 2666MHz DDR4 memory; four SO-DIMM slots, user accessible Configurable to 16GB, 32GB, or 64GB		
Memory Size	16 GB		
Hard Disk Type	HDD		
Hard Disk Size	500GB 2 x 2HDD		
Connection and Ports	Four Thunderbolt 3 (USB-C) ports with support for: Charging; DisplayPort;Thunderbolt (up to 40 Gbps) USB 3.1 Gen 2 (up to 10 Gbps)		
Camera and Video Support	Simultaneously supports full native resolution on the built-in display at millions of colours and: One external 6K display with 6016-by-3384 resolution at 60Hz at over a billion colours, or One external 5K display with 5120-by-2880 resolution at 60Hz at over a billion colours, or Up to two external 4K displays with 4096-by-2304 resolution at 60Hz at millions of colours		
Keyboard and	Backlit Magic Keyboard with:66 (ISO) keys including 4 arrow keys in		
Trackpad	an inverted-T arrangement Touch Bar;Touch ID sensor Ambient light sensor;Force Touch trackpad for precise cursor control and pressure-sensing capabilities; enables Force clicks, accelerators, pressure-sensitive drawing, and Multi- Touch gestures		
Power and Battery	Up to 10 hours wireless web; Up to 10 hours TV app movie playback; Up to 30 days of standby time; Built-in 58.2-watt-hour lithium-polymer battery 61W USB-C Power Adapter		
Wireless	Wi-Fi: 802.11ac Wi-Fi wireless networking IEEE 802.11a/b/g/n compatible Bluetooth Bluetooth 5.0 wireless technology		
Accessibility	With built-in support for vision, hearing, mobility, and learning, you can create and do amazing things. Learn more Features include: Voice Control VoiceOver Zoom Increase Contrast Reduce Motion Siri and Dictation Switch Control Closed Captions Text to Speech		
Audio	Stereo speakers with high dynamic range Three microphones; 3.5 mm headphone jack		
Mouse	Enhanced Optical USB Wheel Mouse, black		
Touch Bar Option	Touch Bar		
Warranty	Extended warranty with three year coverage		
Include in the box	61W USB-C Power Adapter and USB-C Charge Cable (2 m)		

COMMENTS:		
VERIFIED BY:	SIGNATURE:	DATE:

Drone Type 1 Unit Specification		Compl	iance
		Yes	No
PROPOSED BRAND AND MODEL			
Weight (Battery & Propellers Included)	1388 g		
Diagonal Size (Propellers Excluded)	350 mm		
Max Ascent Speed	S-mode: 6 m/s		
	P-mode: 5 m/s		
Max Descent Speed	S-mode: 4 m/s		
	P-mode: 3 m/s		
Max Speed	S-mode: 45 mph (72 kph)		
•	A-mode: 36 mph (58 kph)		
	P-mode: 31 mph (50 kph)		
Max Tilt Angle	S-mode: 42°		
· • • • • • • • • • • • • • • • • • • •	A-mode: 35°		
	P-mode: 25°		
Max Angular Speed	S-mode: 250°/s		
man, inguiai opoca	A-mode: 150°/s		
Max Service Ceiling Above Sea Level	19685 feet (6000 m)		
Max Wind Speed Resistance	10 m/s		
Max Flight Time	Approx. 30 minutes		
Operating Temperature Range	32° to 104°F (0° to 40°C)		
Satellite Positioning Systems	GPS/GLONASS		
Hover Accuracy Range	Vertical:		
Trovor Adodracy Range	±0.1 m (with Vision Positioning)		
	±0.5 m (with GPS Positioning)		
Vision System	Forward Vision System		
Vision Gystem	Backward Vision System		
	Downward Vision System		
Velocity Range	≤31 mph (50 kph) at 6.6 ft (2 m)		
velocity realige	above ground		
Altitude Range	0 - 33 feet (0 - 10 m)		
Operating Range	0 - 33 feet (0 - 10 m)		
Obstacle Sensory Range	2 - 98 feet (0.7 - 30 m)		
FOV	Forward: 60°(Horizontal),	 	
	±27°(Vertical)		
	Backward: 60°(Horizontal),		
	±27°(Vertical)		
	Downward: 70°(Front and		
	Rear), 50°(Left and Right)		
Measuring Frequency	Forward: 10 Hz		
	Backward: 10 Hz		
	Downward: 20 Hz		
Operating Environment	Surface with clear pattern and		
	adequate lighting (lux>15)		

COMMENTS:		
	SIGNATURE:	DATE:

Drone Type 2 Unit Specification		Compli	ance
		Yes	No
PROPOSED BRAND AND MODEL			
Weight	570g		
Size	Folded: 180×97×84 mm (Length×Width×Height)		
	Unfolded: 183×253×77 mm (Length×Width×Height)		
Diagonal Distance	302 mm		
Max Ascent Speed	4 m/s (S Mode) 4 m/s (N Mode) 4 m/s (N Mode)		
Max Descent Speed	3 m/s (S Mode) 3 m/s (N Mode) 5 m/s (S Mode and N Mode during a sharp descent) 3 m/s (all modes at elevations over 4500 m)		
Max Service	5000 m		
Ceiling Above Sea Level			
Max Flight Time (without wind)	34 minutes		
Max Hover Time (without wind)	33 minutes		
Max Flight Distance	18.5 KM		

COMMENTS:		
VERIFIED BY:	SIGNATURE:	DATE:

Executive Headsets Unit Spe	cification	Compl	iance
		Yes	No
PROPOSED BRAND AND			
MODEL			
Colour	Silver		
	Dynamic driver		
	Active Noise Cancellation		
	Transparency mode		
	Adaptive EQ		
Audio Technology	Spatial audio with dynamic head tracking1		
	Optical sensor (each ear cup)		
	Position sensor (each ear cup)		
	Case-detect sensor (each ear cup)		
	Accelerometer (each ear cup)		
	Gyroscope (left ear cup) Optical sensor (each ear cup)		
	Position sensor (each ear cup)		
	Case-detect sensor (each ear cup)		
	Accelerometer (each ear cup)		
Sensors			
Sensors	Gyroscope (left ear cup)		
	Nine microphones in total:		
	Eight microphones for Active Noise Cancellation		
	Three microphones for voice pickup (two shared with Active		
Microphones	Noise Cancellation and one additional microphone)		
Chip	H1 headphone chip (each ear cup)		
	Digital Crown		
	Turn for volume control		
	Press once to play, pause, or answer a phone call		
	Press twice to skip forwards		
	Press three times to skip back		
	Press and hold for Siri		
	Noise control button		
	Press to switch between Active Noise Cancellation and		
Controls	Transparency mode		
Size and weight	384.8 grams (13.6 ounces)		
Oize and Weight	Executive Headsets		
	Up to 20 hours of listening time on a single charge with Active		
	Noise Cancellation or Transparency mode enabled3		
	Up to 20 hours of movie playback on a single charge with		
	spatial audio on4		
	Up to 20 hours of talk time on a single charge5		
	5 minutes of charge time provides around 1.5 hours of		
	listening time6		
	Executive Headsets with Smart Case		
	Storage in the Smart Case preserves battery charge in ultra-		
-	low-power state		
Battery	Charging via Lightning connector	1	
Connectivity	Bluetooth 5.0]	
	Executive Headsets		
	Smart Case		
	Lightning to USB-C Cable		
In the box	Documentation		

COMMENTS:		
VERIFIED BY:	SIGNATURE:	DATE:

Executive Laptop Un	it Specification	Compl	
D'ante O'	1 40 0 (MAinimum Cim)	Yes	No
Display Size	13.3" (Minimum Size)		
Chipset	Intel Core		
Processor	Intel i7 latest generation		
Graphics	Intel HD Graphics		
	Supports external analogue monitor via VGA and digital monitor via Mini DisplayPort; supports three independent displays;		
D' I.	supports three independent displays;		
Display	HD (1366x768), 200 nits, 300:1 contrast ratio,FPR Touch Style		
Camera	HD720p resolution, low light sensitive, fixed focus		
Memory Type	DDR4, 2 x 16 socket		
Memory Size	32GB, 1 Dimm		
Hard Disk Type	SSD		
Hard Disk Size	512GB - 1TB(or higher)		
Connectivity	Gigabit Ethernet		
WWAN	4G-5G LTE		
WLAN	802.11n, 802.11ac and 802.11ad	ļ	
Bluetooth	Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Power Supply Unit	45-watt AC adapter		
Battery	Li-lon - Battery Life: min. 8 hours battery life		
Security	Security: Power-on password, hard disk password, supervisor password,		
	security keyhole		
	Security chip: Trusted Platform Module, TCG 2.0 -compliant		
	Fingerprint reader		
Environmental	ENERGY STAR 6.1; RoHS-compliant		
Operating System Software	Windows 10 Professional 64-bit		
Warranty	3 Years On-Site Next Business Day		
Ports	Three USB 3.0 (one Always On), MiniDP, HDMI, Ethernet (RJ-45), Dock connector, VGA		
	4-in-1 reader		
	Sim Slot		
	Mini Display Port to VGA Monitor Cable		
Multimedia	HD Audio, stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack, Internal Speaker, 720p low light sensitivity Camera		
Keyboard	6-row, spill-resistant, multimedia Fn keys, Backlit LED backlight		
Pointing Device	TrackPoint pointing device and buttonless surface touchpad, multi-touch		
Mouse	Wireless Travel Mouse with a built-in adaptor bluetooth		
Accessories	Stylers Pen	1	
10000001100	Privacy Filter Screen Protector*	 	
Carry Bag	Basic Notebook Case	 	
Plug	Red Plug	 	
Auto Pilot	Windows Autopilot for pre provisioned deployment		
Hardware and	•TPM 2.0 is enabled and in a good state (not in Reduced Functionality		
firmware best	Mode) on devices intended for Windows Autopilot self-deploying mode.		
practice guidelines	•The OEM should provision either of the following information into the		
for Windows	SMBIOS fields. The information should follow Microsoft specifications		
Autopilot	(Manufacturer, Product Name, and Serial Number stored in SMBIOS Type		
deployment	1 04h, Type 1 05h and Type 1 07h).		
process	oUnique tuple info (Smbios System Manufacturer, Smbios System ProductName, Smbios System SerialNumber)		
•	oPKID + Smbios System SerialNumber		
	•Before shipping devices to an Autopilot customer or channel partner, the		
	OEM should upload 4K Hardware Hashes to Microsoft by using the CBR		
	report. The hashes should be collected using the OA3 Tool RS3+ run in	1	Ī

	 •Microsoft requires that OEM shipping drivers get published to Windows Update within 30 days of the CBR submission date. System firmware and driver updates are published to Windows Update within 14 days. •The OEM ensures that the PKID provisioned in the SMBIOS is passed on to the channel. •When using a VM for Autopilot testing, assign at least 2 processors and 4gb of memory. *Note: The minimum system requirements for Windows 11 are 2 processors and 4gb memory. 	
Software best practice guidelines for Windows Autopilot Windows Autopilot deployment process	Windows Autopilot device should be preinstalled with a Windows 11 base image 21H2, plus drivers plus business application specified by Transnet. This will be pre-provisioned. Preinstall licensed version of Office, such as Microsoft 365 Apps for enterprise. Per OEM Policy, Windows features, including built-in apps, shouldn't be disabled or removed.	
Lock	Notebook Cable Lock	

COMMENTS:		
VERIFIED BY:	SIGNATURE:	DATE:

Laptop Graphics U	nit Specification		oliance
Туре	Laptop	Yes	No
Chipset	Intel Core		
Processor	12th Generation I9 or XEON equivalent		
Graphics	Graphics Card Quad port, 2GB DDR3, Dual-Link DVI-I, Display Port Graphics Card		
Memory Type			
Memory Size	DDR4, Minimum 2 sockets 32 GB		
Hard Disk Type	HDD		
Hard Disk Type	500GB(or higher)		
Optical Drive	None		
Connectivity	Gigabit ethernet, integrated in Wi-Fi + Bluetooth combo adapter		
Power Supply Unit	One fixed 490 watts, autosensing, 90%, 80 PLUS Gold qualified		
Security Security	1.Security chip - Trusted Platform Module,		
Security			
	TCG 1.2-compliant		
	2. Chassis Intrusion Switch		
	3. One lock to secure both cover and entire system:		
	a. Padlock loop (rear for optional padlock)		
	b. Security slot (in rear for optional cable)		
	4. Power-on, Administrator & Hard disk password		
	5. Boot sequence control		
	6. Boot without keyboard and mouse		
	7. Individual USB port disablement		
	8. Smart USB protection, allows keyboard/ mouse only, blocks all storage devices		
F	Can be done via software/ AD		
Environmental	RoHS-compliant/EPEAT Gold rating on all models		
Operating System Software	Windows 10 Enterprise 64-bit		
Warranty	3 Years On-Site Next Business Day		
Ports	Front ports: Four USB 3.0 (one Diagnostic, one Always On), one combo audio/microphone jack (3.5mm)		
	Rear ports: Four USB 2.0, four USB 3.0, one serial (9-pin), one ethernet (RJ-45),		
	three analogue audio ports (line-in, line-out, mic-in) - Front and rear, two PS/2		
	SIM Slot		
Audio	High Definition (HD) Audio, internal speaker		
Keyboard	Full size Keyboard (USB connector), black		
Mouse	Enhanced Optical USB Wheel Mouse, black		
Plug	Red Octopus Plug (CPU and monitor to connect to single red power)		
Monitor	24 " WIDE LED TFT Tilt Monitor - 1440 X 900 -3 Year Warranty X2		
Auto Pilot	Windows Autopilot for pre provisioned deployment		
Hardware and	•TPM 2.0 is enabled and in a good state (not in Reduced Functionality Mode) on		
firmware best	devices intended for Windows Autopilot self-deploying mode. •The OEM should provision either of the following information into the SMBIOS		
practice guidelines for	fields. The information should follow Microsoft specifications (Manufacturer, Product		
Windows	Name, and Serial Number stored in SMBIOS Type 1 04h, Type 1 05h and Type 1		
Autopilot	07h).		
deployment	oUnique tuple info (Sm bios System Manufacturer, Sm bios System ProductName, Sm bios System Serial Number)		
process	oPKID + Smbios System Serial Number		
	•Before shipping devices to an Autopilot customer or channel partner, the OEM		
	should upload 4K Hardware Hashes to Microsoft by using the CBR report. The hashes should be collected using the OA3 Tool RS3+ run in Audit mode on full OS.	1	

	 •Microsoft requires that OEM shipping drivers get published to Windows Update within 30 days of the CBR submission date. System firmware and driver updates are published to Windows Update within 14 days. •The OEM ensures that the PKID provisioned in the SMBIOS is passed on to the channel. •When using a VM for Autopilot testing, assign at least 2 processors and 4gb of memory. *Note: The minimum system requirements for Windows 11 are 2 processors and 4gb memory. 	
Software best practice guidelines for Windows Autopilot Windows Autopilot deployment process	Windows Autopilot device should be preinstalled with a Windows 11 base image 21H2, plus drivers plus business application specified by Transnet. This will be preprovisioned. Preinstall licensed version of Office, such as Microsoft 365 Apps for enterprise. Per OEM Policy, Windows features, including built-in apps, shouldn't be disabled or removed. Oahle Land.	
Lock	Cable Lock	

COMMENTS:		
VERIFIED BY:	SIGNATURE:	DATE:

Workstation Graphics	s Unit Specification	Comp	
	Γ_	Yes	No
Form Factor	Tower		╀
Chipset	Intel Core		-
Processor	12th Generation I9 or XEON equivalent		+
Graphics	Graphics Card Quad port, 2GB DDR3, Dual-Link DVI-I, Display Port Graphics Card		
Memory Type	DDR4, Minimum 2 sockets		
Memory Size	32 GB		
Hard Disk Type	HDD		
Hard Disk Size	500GB(or higher)		<u> </u>
Optical Drive	None		
Connectivity	Gigabit ethernet, integrated in Wi-Fi + Bluetooth combo adapter		
Power Supply Unit	One fixed 490 watts, autosensing, 90%, 80 PLUS Gold qualified		-
Security	1.Security chip - Trusted Platform Module,		
	TCG 1.2-compliant		
	2. Chassis Intrusion Switch		
	3. One lock to secure both cover and entire system:		1
	a. Padlock loop (rear for optional padlock)		
	b. Security slot (in rear for optional cable)		+
	4. Power-on, Administrator & Hard disk password		
	5. Boot sequence control		
	6. Boot without keyboard and mouse		
	7. Individual USB port disablement		
	8. Smart USB protection, allows keyboard/ mouse only, blocks all storage devices Can be done via software/ AD		
Environmental	RoHS-compliant/EPEAT Gold rating on all models		
Operating System Software	Windows 10 Enterprise 64-bit		
Warranty	3 Years On-Site Next Business Day		
Ports	Front ports: Four USB 3.0 (one Diagnostic, one Always On), one combo audio/microphone jack (3.5mm)		
	Rear ports: Four USB 2.0, four USB 3.0, one serial (9-pin), one ethernet (RJ-45), three analogue audio ports (line-in, line-out, mic-in) - Front and rear, two PS/2		
Audio	High Definition (HD) Audio, internal speaker		Ī
Keyboard	Full size Keyboard (USB connector), black		+
Mouse	Enhanced Optical USB Wheel Mouse, black		
Plug	Red Octopus Plug (CPU and monitor to connect to single red power)		+
Monitor	24 " WIDE LED TFT Tilt Monitor - 1440 X 900 -3 Year Warranty X2		
Auto Pilot	·		+
Hardware and	Windows Autopilot for pre provisioned deployment •TPM 2.0 is enabled and in a good state (not in Reduced Functionality Mode) on		+
firmware best	devices intended for Windows Autopilot self-deploying mode.		
practice guidelines	•The OEM should provision either of the following information into the SMBIOS		
for Windows	fields. The information should follow Microsoft specifications (Manufacturer,		
Autopilot	Product Name, and Serial Number stored in SMBIOS Type 1 04h, Type 1 05h and		
deployment	Type 1 07h).		1
process	oUnique tuple info (Smbios System Manufacturer, Smbios System ProductName, Smbios System SerialNumber)		
l	oPKID + Smbios System SerialNumber		
	Before shipping devices to an Autopilot customer or channel partner, the OEM		
	should upload 4K Hardware Hashes to Microsoft by using the CBR report. The		1
	hashes should be collected using the OA3 Tool RS3+ run in Audit mode on full OS.		
	•Microsoft requires that OEM shipping drivers get published to Windows Update		1
	within 30 days of the CBR submission date. System firmware and driver updates		1
	are published to Windows Update within 14 days.		

	The OEM ensures that the PKID provisioned in the SMBIOS is passed on to the channel. When using a VM for Autopilot testing, assign at least 2 processors and 4gb of memory. *Note: The minimum system requirements for Windows 11 are 2 processors and 4gb memory.	
Software best practice guidelines for Windows Autopilot Windows Autopilot deployment process	•Windows Autopilot device should be preinstalled with a Windows 11 base image 21H2, plus drivers plus business application specified by Transnet. This will be preprovisioned. •Preinstall licensed version of Office, such as Microsoft 365 Apps for enterprise. Per OEM Policy, Windows features, including built-in apps, shouldn't be disabled or removed.	
Lock	Cable Lock	

COMMENTS:		
VERIFIED BY:	SIGNATURE:	DATE:

High Performance I	_aptop Unit Specification		pliance
D: 1 0:	4511 (14)	Yes	No
Display Size	15" (Minimum Size)		
Chipset	Intel		
Processor	Intel i7 latest generation		
Graphics	Intel HD Graphics		
	Supports external digital monitor via HDMI or USB Type-C;		
	Supports three independent displays;		
Display	HD (1366x768), 200 nits, 300:1 contrast ratio,FPR Touch Style		
Camera	HD720p resolution, low light sensitive, fixed focus		
Memory Type	DDR4, 2 x socket		
Memory Size	16GB, 1 Dimm		
Hard Disk Type	SSD/HDD		
Hard Disk Size	500GB (or higher)		
Connectivity	Gigabit Ethernet		
WWAN	4G-5G LTE		
WLAN	802.11n, 802.11ac and 802.11ad		
Bluetooth	Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo adapter		
Power Supply Unit	45-watt AC adapter		
Battery	Li-Ion - Battery Life: min. 8 hours battery life		
Security	Security: Power-on password, hard disk password, supervisor password, security keyhole		
	Security chip: Trusted Platform Module, TCG 2.0 -compliant		
	Fingerprint reader		
Environmental	ENERGY STAR 6.1; RoHS-compliant		
Operating System Software	Windows 10 Professional 64-bit		
Warranty	3 Years On-Site Next Business Day		
Ports	Three USB 3.0 (one Always On), MiniDP, HDMI, Ethernet (RJ-45), Dock		
	connector, VGA		
	4-in-1 reader		
	Sim Slot		
	Mini Display Port to VGA Monitor Cable		
Multimedia	HD Audio, stereo speakers, 2W x 2 / dual array microphone, combo audio/microphone jack, Internal Speaker,		
Keyboard	720p low light sensitivity Camera 6-row, spill-resistant, multimedia Fn keys, Backlit LED backlight		
Pointing Device	TrackPoint pointing device and buttonless surface touchpad, multi-touch		
Mouse			
Carry Bag	USB Optical Wheel Travel Mouse Basic Notebook case		-
Plug	Red Plug	-	
	Windows Autopilot for pre provisioned deployment		
Auto Pilot	1 1 1		
Hardware and firmware best practice guidelines for Windows	 •TPM 2.0 is enabled and in a good state (not in Reduced Functionality Mode) on devices intended for Windows Autopilot self-deploying mode. •The OEM should provision either of the following information into the SMBIOS fields. The information should follow Microsoft specifications (Manufacturer, Product Name, and Serial Number stored in SMBIOS Type 1 04h, Type 1 05h 		
Autopilot deployment process	and Type 1 07h). oUnique tuple info (Smbios System Manufacturer, Smbios System ProductName, Smbios System SerialNumber) oPKID + Smbios System SerialNumber		
	•Before shipping devices to an Autopilot customer or channel partner, the OEM should upload 4K Hardware Hashes to Microsoft by using the CBR report. The		

	hashes should be collected using the OA3 Tool RS3+ run in Audit mode on full OS. •Microsoft requires that OEM shipping drivers get published to Windows Update within 30 days of the CBR submission date. System firmware and driver updates are published to Windows Update within 14 days. •The OEM ensures that the PKID provisioned in the SMBIOS is passed on to the channel. •When using a VM for Autopilot testing, assign at least 2 processors and 4gb of memory. *Note: The minimum system requirements for Windows 11 are 2 processors and 4gb memory.	
Lock	Notebook Cable Lock	

COMMENTS:		
VERIFIED BY:	SIGNATURE:	DATE:

Laptop for Graphic Des	sign Unit Specification	Comp	liance
		Yes	No
PROPOSED BRAND AND MODEL			
Size	13 Inch		
Chipset	Intel Core		
Processor	2.0GHz quad-core 10th-generation Intel Core i7, Turbo Boost up to 3.8GHz, with 6MB shared L3 cache		
Graphics	Intel Iris Plus Graphics		
Display	24" Touch (604.5mm) Full HD 1080p (1920x1080) TFT colour, , wide viewing angle (+/- 89°), LED backlight, 250 nits, 16:9 aspect ratio, 1000:1 contrast ratio, (DP in / out combo)		
Camera	Optional 2.0-megapixel camera, fixed focus, supports 1080p, with dual array digital microphone, LED indicator, physical switch on/off, Skype for Business certified		
Memory Type	DDR4, Minimum 2 sockets		
Memory Size	16 GB		
Hard Disk Type	HDD		
Hard Disk Size	500GB 2 x 2HDD		
Connection and Ports	Four Thunderbolt 3 (USB-C) ports with support for: Charging; DisplayPort; Thunderbolt (up to 40 Gbps) USB 3.1 Gen 2 (up to 10 Gbps)		
Camera and Video Support	Simultaneously supports full native resolution on the built-in display at millions of colours and: One external 6K display with 6016-by-3384 resolution at 60Hz at over a billion colours, or One external 5K display with 5120-by-2880 resolution at 60Hz at over a billion colours, or Up to two external 4K displays with 4096-by-2304 resolution at 60Hz at		
Keyboard and	millions of colours Backlit Magic Keyboard with:66 (ISO) keys including 4 arrow keys in an		
Trackpad	inverted-T arrangement Touch Bar; Touch ID sensor Ambient light sensor; Force Touch trackpad for precise cursor control and pressure-sensing capabilities; enables Force clicks, accelerators, pressure-sensitive drawing, and Multi-Touch gestures		
Power and Battery	Up to 10 hours wireless web;Up to 10 hours TV app movie playback; Up to 30 days of standby time; Built-in 58.2-watt-hour lithium-polymer battery 61W USB-C Power Adapter		
Wireless	Wi-Fi: 802.11ac Wi-Fi wireless networking IEEE 802.11a/b/g/n compatible Bluetooth Bluetooth 5.0 wireless technology		
Accessibility	Accessibility features help people with disabilities get the most out of their MacBook Pro. With built-in support for vision, hearing, mobility, and learning, you can create and do amazing things. Learn more		
	Features include: Voice Control Voice Over Zoom Increase Contrast Reduce Motion		
	Siri and Dictation Switch Control		

	Closed Captions Text to Speech	
Audio	Stereo speakers with high dynamic range	
	Three microphones; 3.5 mm headphone jack	
Touch Bar Option	Touch Bar	
Warranty	iCare extended warranty with three-year coverage	
Include in the box	61W USB-C Power Adapter and USB-C Charge Cable (2 m)	

COMMENTS:		
VERIFIED BY:	SIGNATURE:	DATE:

Scanner Unit Specification		Compliance	
		Yes	No
PROPOSED BRAND AND MODEL			
Scanner type	Flatbed colour		
Photoelectric device	Colour CCD line sensor		
Effective pixels	40,800 x 56,160 pixels at 4800 dpi		
	Scanning area may be restricted if resolution setting is large.		
Document size	Reflective:		
	The scanner should be able to scan both A3 and A4 papers		
	Transparent:		
	35 mm film strip: 6 frames at a time		
	35 mm slides: up to 4 slides at a time		
Scanning resolution	4800 dpi (main scan)		
	9600 dpi with Micro Step (sub scan)		
Output resolution	50 to 6400, 9600, and 12800 dpi (50 to 6400 dpi in 1 dpi increments)		
Image data	16 bits per pixel per colour internal		
-	16 bits per pixel per colour external (maximum)		
Interface	One USB 2.0 Hi-speed port		
Light source	White LED		

COMMENTS:		
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Standard Laptop Unit Sp	ecification	Comp	liance
		Yes	No
Display Size	14" (Minimum Size)		
Chipset	Intel Core		
Processor	Intel i5 latest generation		
Graphics	Intel HD Graphics		
	Supports external digital monitor via HDMI or USB Type-C;		
	Supports three independent displays;		
Display	HD (1366x768), 200 nits, 300:1 contrast ratio		1
Camera	HD720p resolution, low light sensitive, fixed focus		
Memory Type	DDR4, 2 x socket		
Memory Size	16 GB		1
Hard Disk Type	HDD		
Hard Disk Size	320 GB (or higher)		
Connectivity	Gigabit Ethernet		
WWAN	4G-5G LTE		-
WLAN	802.11n, 802.11ac and 802.11ad		
Bluetooth	Bluetooth 4.1 wireless, integrated in Wi-Fi + Bluetooth combo		
Diuetootri	adapter		
Power Supply Unit	45-watt AC adapter		1
Battery	Li-Ion - Battery Life: min. 8 hours battery life		1
	·		
Security	Security: Power-on password, hard disk password, supervisor password, security keyhole		
	Security chip: Trusted Platform Module, TCG 2.0 -compliant		
	Fingerprint reader		
Environmental	ENERGY STAR 6.1; RoHS-compliant		
Operating System Software	Windows 10 Professional 64-bit		
Warranty	3 Years On-Site Next Business Day		
Ports	Three USB 3.0 (one Always On), MiniDP, HDMI, Ethernet (RJ-45), Dock		
	connector, VGA		
	4-in-1 reader		
	Sim Slot		
	Mini Display Port to VGA Monitor Cable		
Multimedia	HD Audio, stereo speakers, 2W x 2 / dual array microphone,		
	combo audio/microphone jack, Internal Speaker, 720p low light sensitivity Camera		
Keyboard	6-row, spill-resistant, multimedia Fn keys, Backlit LED backlight		
Pointing Device	TrackPoint pointing device and buttonless surface touchpad,		-
Folitting Device	multi-touch		
Mouse	USB Optical Wheel Travel Mouse		
Carry Bag	Basic Notebook case		
Plug	Red Plug		
Auto Pilot	Windows Autopilot for pre provisioned deployment		1
Hardware and	•TPM 2.0 is enabled and in a good state (not in Reduced Functionality		
firmware best practice	Mode) on devices intended for Windows Autopilot self-deploying mode.		
guidelines for	•The OEM should provision either of the following information into the		
Windows Autopilot	SMBIOS fields. The information should follow Microsoft specifications		
deployment process	(Manufacturer, Product Name, and Serial Number stored in SMBIOS Type 1 04h, Type 1 05h and Type 1 07h).		
	oUnique tuple info (Smbios System Manufacturer, Smbios System		
	ProductName, SmbiosSystem SerialNumber)		
	oPKID + Smbios System SerialNumber		

	Before shipping devices to an Autopilot customer or channel partner, the OEM should upload 4K Hardware Hashes to Microsoft by using the CBR report. The hashes should be collected using the OA3 Tool RS3+ run in Audit mode on full OS. Microsoft requires that OEM shipping drivers get published to Windows Update within 30 days of the CBR submission date. System firmware and driver updates are published to Windows Update within 14 days. The OEM ensures that the PKID provisioned in the SMBIOS is passed on to the channel. When using a VM for Autopilot testing, assign at least 2 processors and 4gb of memory. *Note: The minimum system requirements for Windows 11 are 2 processors and 4gb memory.	
Software best practice guidelines for Windows Autopilot Windows Autopilot deployment process	*Windows Autopilot device should be preinstalled with a Windows 11 base image 21H2, plus drivers plus business application specified by Transnet. This will be pre-provisioned. *Preinstall licensed version of Office, such as Microsoft 365 Apps for enterprise. Per OEM Policy, Windows features, including built-in apps, shouldn't be disabled or removed.	
Lock	Notebook Cable Lock	

COMMENTS:		
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USB Headset Unit Specification		Complian	
		Yes	No
PROPOSED BRAND AND MODEL			10
Туре	C3220/C3225		
Weight (with cable)	118 g/0.26 lbs (C3220), 121 g/0.27 lbs(C3225)		
Weight (without cable)	92 g/0.20 lbs(C3220/C3225)		
Speaker Size	28mm/0,09 ft		
	Connects to either Windows or Mac PC via USB,		
Specification	USB Headsets must be Microsoft Teams compliant		
PC Audio Performance	Dynamic EQ, microphone frequency response, 100Hz-10kHz optimal for PC wideband voice telephonyb(up to 6,800 Hz), Hi-Fi Stereo (C3220/C3225, Receive output from from 20Hz-20kHz, Enhanced digital signal processing (DSP), Noisecancelling microphone, Adjustable audio alerts with PLantronics Hub Software(mute/volume).		
	SoundGuard: Acoustic limiting for protection against		
Hearing Protection	sounds above 118 Dba.		
Remote Call Protection	Call answer/ignore/end/hold,redial, mute,volume+-		
Input Impedance	32 ohms		
Speaker Sensitivity	90dB		
Speaker Bandwidth (Speech Mode)	200-6800Hz		
Speaker Bandwidth (Media Mode)	20-20000Hz		
Maximum Acoustic Output	118dBSPL		
Microphone Sensitivity	38dBV/Pa		
Microphone Boom Length	130 mm / 0.43 ft		
Microphone Bandwidth	100-10000Hz		
Cable Length (Inline Module To Headset)	790 mm/ 2.59 ft (C3210, 3220) 1295 mm/ 4.25 ft (C3215, 3225)		
Cable Length			
(USB To Inline Module)	900 mm/ 2.95 ft	1	1
Cable Length	1610 mm/ 5.28 ft (C3210, 3220)		
(Total USB To Headset) Headband Adjustment	2270 mm/ 7.45 ft (C3215, 3225)	1	+
r leaubanu Aujustinent	35 mm/ 0.11 ft (C3210, 3215) 70 mm/ 0.23 ft (C3220, 3225)		

COMMENTS:		
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Wireless/Bluetooth Headsets Unit Specification		Compliance	
		Yes	
PROPOSED BRAND AND MODEL			
Туре	Wireless Bluetooth 5200 Blackwire Headsets must be Microsoft Teams compliant		
HEADSET WEIGHT	20 gm / .04 lbs		
SPEAKER SIZE	13.6 mm		+
SPECIFICATION: TALK TIME/ STAND BY	Up to 7 hrs, Up to 9 days standby time, Wireless/Bluetooth Headsets must be		
WIRELESS RANGE	Microsoft Teams compliant, UC Models, 30 m/98 ft Office Models, 75 m/250 ft		
BLUETOOTH® TECHNOLOGY	Bluetooth Version Blutooth 5.0 with BLE Bluetooth Profiles A2DP HFP HSP PBAP SSP2		
AUDIO FEATURES	Six layers of WindSmart technology PC wideband and mobile wideband Up to 6,800 Hz Echo cancellation Proprietary DSP A2DP		
CODECS	• MSBC • G.722 • CVSD • SBC		
SPEAKER RANGE COMMUNICATION	100 Hz-6.8 kHz		
SPEAKER RANGE MUSIC/MEDIA	100 Hz-20 kHz		
SPEAKER SENSITIVITY	Optimized for telecommunications, music/media		
SPEAKER IMPEDANCE	16 ohm		
BATTERY CAPACITY	122 mAh typical / 120 mAh minimum		
BATTERY TYPE	Rechargeable non-replaceable lithium-ion		
CHARGE TIME	1.5 hours		
HEARING PROTECTION	SoundGuard Sound leveling for listening comfort and acoustic limiting for protection against sounds above 118 dBA		
MICROPHONE AND TECHNOLOGY	Digital MEMS omni-directional four mic array, multi-mic noise canceling		
CALL CONTROLS	Call answer/ignore/end Redial Mute Volume + /		

ALERTS	Enhanced voice alerts announce remaining talk-time, mute and connection status	
SOFTPHONE COMPATIBILITY	Built for UC applications and softphones from Avaya, Cisco, Microsoft,	
APPS	Plantronics Hub desktop2 version is available for Windows/Mac Mobile version offered on Android and iOS Plantronics Manager Pro2 suites Asset Management & Adoption Call Quality & Analytics Health & Safety Amazon Alexa (easy access) Tile (lost headset location	

COMMENTS:		
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