



**DOST-ASTI Bids and Awards Committee  
REQUEST FOR QUOTATION**

<b>Kind of Procurement Activity:</b>	Negotiated Procurement:Small-value Procurement		
<b>Deadline of Submission of Bids:</b>	Apr-16-2024, 2:00 PM		
<b>RFQ No.:</b>	24-04-4754	<b>Date:</b>	April-11-2024
<b>PR No.:</b>	GAA-24-04-18999	<b>Date:</b>	April-04-2024

The Department of Science and Technology (DOST) - Advanced Science and Technology Institute (ASTI), through its Bids and Awards Committee (BAC), intends to procure the enlisted item/s below. Bidders may submit a proposal on any of the lots or items, and evaluation will be undertaken on a per lot or item basis, except otherwise specified in the requirements. Award may be considered for prospective bidder/s proven to be the single/lowest calculated and responsive quotation among all other quotations. Guidelines on the format of quotations and eligibility documents are listed below. Kindly follow the prescribed GUIDELINES to avoid DISQUALIFICATION.

Quotations may be submitted 1) manually to the BAC Secretariat at G/F DOST-ASTI Bldg., UP Technology Park Complex, CP Garcia Ave., UP Campus, Diliman, Quezon City or 2) sent via electronic mail at bac-sec@asti.dost.gov.ph. For further information, please contact the BAC Secretariat at +63 2 8249-8500 loc. 1206/1212.

Thank you.

**BAYANI BENJAMIN R. LARA**  
BAC Chairperson

NO.	TECHNICAL SPECIFICATIONS	QTY	UNIT	UNIT PRICE(Php)	TOTAL PRICE(Php)
1	<p><b>Digital Film Video Camera - 6K, Super 35 sensor, EF Mount, HDMI (Body)</b></p> <p>1. Background / Objectives.</p> <p>1.1. Digital film video camera for video production projects.</p> <p>1.2. Specifications indicated herein are minimum requirements, unless otherwise stated.</p> <p>1.3. Offers of equivalent or better specifications are acceptable.</p> <p>2. Functional / Technical Specifications.</p> <p>2.1. Camera Features.</p> <p>2.1.1. Effective Sensor Size: 23.10mm x 12.99mm (Super 35).</p> <p>2.1.2. Lens Mount: Active EF mount.</p> <p>2.1.3. Lens Control: Iris, focus and zoom on supported lenses.</p> <p>2.1.4. Dynamic Range: 13 Stops.</p> <p>2.1.5. Dual Native ISO: 400 and 3200.</p> <p>2.1.6. Shooting Resolutions.</p> <p>2.1.6.1. 6144 x 3456 (6K) up to 50 fps.</p> <p>2.1.6.2. 6144 x 2560 (6K 2.4:1) up to 60 fps.</p> <p>2.1.6.3. 5744 x 3024 (5.7K 17:9) up to 60 fps.</p> <p>2.1.6.4. 4096 x 2160 (4K DCI) up to 60 fps.</p> <p>2.1.6.5. 3840 x 2160 (Ultra HD) up to 60 fps.</p>	1	unit	190000.00	190,000.00

2.1.6.6. 3728 x 3104 (3.7K 6:5 anamorphic) up to 60 fps.

2.1.6.7. 2880 x 1512 (2.8K 17:9) up to 120 fps.

2.1.6.8. 1920 x 1080 (HD) up to 120 fps.

#### 2.1.7. Frame Rates.

2.1.7.1. Maximum sensor frame rate dependent on resolution and codec selected.

2.1.7.2. Project frame rates of 23.98, 24, 25, 29.97, 30, 50, 59.94 and 60 fps supported.

2.1.7.3. Off-speed frame rates up to 60 fps in 6K 2.4:1, 120 fps in 2.8K 17:9 and 1080HD.

#### 2.1.8. Built in ND Filters.

2.1.8.1. Four position ND filter with clear, 2-stop, 4-stop and 6-stop IR ND filters.

2.1.9. Focus: Auto focus available using compatible lenses.

#### 2.1.10. Iris Control.

2.1.10.1. Iris wheel and touchscreen slider for manual iris adjustment on electronically controllable lenses.

2.1.10.2. Iris button for instant auto iris settings on compatible lenses.

2.1.11. Screen Dimensions: 5-inch, 1920 x 1080.

2.1.12. Screen Brightness: 1500 nits.

2.1.13. Screen Type: LCD capacitive touchscreen.

2.1.14. Metadata Support.

2.1.14.1. Automatically populated lens data from electronic EF lenses.

2.1.14.2. Automatic recording of camera settings and slate data such as project, scene number, take and special notes.

2.1.14.3. A 3D LUT can also be embedded in metadata of RAW files.

#### 2.1.15. Controls.

2.1.15.1. Touchscreen menus on 5-inch screen.

2.1.15.2. 1 x Power Switch.

2.1.15.3. 1 x Record Button.

2.1.15.4. 1 x Stills Button.

2.1.15.5. 1 x Scroll Wheel with push integrated into handgrip.

2.1.15.6. 1 x ISO Button.

2.1.15.7. 1 x White Balance.

2.1.15.8. 1 x Shutter Button.

2.1.15.9. 3 x software configurable Fn buttons.

2.1.15.10. 2 x ND filter button.

2.1.15.11. 1 x Focus Button.

2.1.15.12. 1 x IRIS Button.

2.1.15.13. 1 x High Frame Rate (HFR) Button.

2.1.15.14. 1 x Zoom Button.

2.1.15.15. 1 x Menu Button.

2.1.15.16. 1 x Playback Button.

2.1.16. Timecode Clock: Less than 1 frame drift every 8 hours.

#### 2.2. Connections.

2.2.1. Total Video Inputs: None.

2.2.2. Total Video Outputs: 1 x HDMI up to 1080p60.

2.2.3. Analog Audio Inputs.

2.2.3.1. 2 x mini XLR analog switchable between mic

with phantom power support and line level (up to +14dBu).

2.2.3.2. 1 x 3.5mm stereo Input.

2.2.3.3. All audio inputs can also be used for Timecode input.

2.2.4. Analog Audio Outputs: 1 x 3.5mm headphone jack.

2.2.5. Computer Interface: USB Type-C for external drive recording, PTP camera control and software updates.

## 2.3. Audio.

2.3.1. Microphone: Integrated stereo microphone.

2.3.2. Built in Speaker: 1 x mono speaker.

## 2.4. Standards.

2.4.1. SD Video Standards: None.

2.4.2. HD Video Standards: 1080p23.98, 1080p24, 1080p25, 1080p29.97, 1080p30, 1080p50, 1080p59.94, 1080p60.

2.4.3. Ultra HD Video Standards: 2160p23.98, 2160p24, 2160p25, 2160p29.97, 2160p30, 2160p50, 2160p59.94, 2160p60.

2.4.4. 4K DCI Standards: 4Kp23.98 DCI, 4Kp24 DCI, 4Kp25 DCI, 4Kp29.97 DCI, 4Kp30 DCI, 4Kp50 DCI, 4Kp59.94 DCI, 4Kp60 DCI.

## 2.5. Media.

2.5.1. Media.

2.5.1.1. 1 x CFast card slot.

2.5.1.2. 1 x SD UHS-II card slot.

2.5.1.3. 1 x USB-C 3.1 Gen 1 expansion port for external media for RAW and ProRes recording.

2.5.2. Media Format: Can format media to ExFAT (Windows/Mac) or HFS+ (Mac) file systems.

## 2.6. Supported Codecs.

2.6.1. Codecs.

2.6.1.1. RAW Constant Bitrate 3:1.

2.6.1.2. RAW Constant Bitrate 5:1.

2.6.1.3. RAW Constant Bitrate 8:1.

2.6.1.4. RAW Constant Bitrate 12:1.

2.6.1.5. RAW Constant Quality Q0.

2.6.1.6. RAW Constant Quality Q1.

2.6.1.7. RAW Constant Quality Q3.

2.6.1.8. RAW Constant Quality Q5.

2.6.1.9. ProRes 422 HQ QuickTime.

2.6.1.10. ProRes 422 QuickTime.

2.6.1.11. ProRes 422 LT QuickTime.

2.6.1.12. ProRes 422 Proxy QuickTime.

## 2.7. Control.

2.7.1. External Control.

2.7.1.1. Zoom Demand and Focus Demand for controlling camera and lens from tripod handles.

2.7.1.2. iPad control, Bluetooth control, USB PTP camera control. External control of some camera settings, focus, iris and zoom with compatible lenses, color corrector, tally and internal record start and stop when used with a compatible live production

switcher/software.

## 2.8. Color Corrector.

2.8.1. Color Corrector: YRGB.

## 2.9. Storage.

### 2.9.1. Storage Type.

2.9.1.1. 1 x CFast 2.0.

2.9.1.2. 1 x SD UHS-II card.

2.9.1.3. 1 x high speed USB-C expansion port for external media.

### 2.9.2. Recording Formats.

2.9.2.1. RAW 3:1, 5:1, 8:1, 12:1, Q0, Q1, Q3 and Q5 at 6144 x 3456, 6144 x 2560, 5744 x 3024, 4096 x 2160, 3728 x 3104 and 2880 x 1512 with film, extended video, video dynamic range or custom 3D LUT embedded in metadata.

2.9.2.2. ProRes at 4096 x 2160, 3840 x 2160 and 1920 x 1080 with film, extended video or video dynamic range or custom 3D LUT.

2.9.2.3. Supports recording optional portrait mode metadata for all resolutions in RAW and ProRes.

2.9.3. Storage Rates (based on 30 frames per second).

2.9.3.1. 6144 x 3456 (6K).

2.9.3.1.1. RAW 3:1 - 323 MB/s.

2.9.3.1.2. RAW 5:1 - 194 MB/s.

2.9.3.1.3. RAW 8:1 - 121 MB/s.

2.9.3.1.4. RAW 12:1 - 81 MB/s.

2.9.3.1.5. RAW Q0 - 242 to 483 MB/s.

2.9.3.1.6. RAW Q1 - 162 to 387 MB/s.

2.9.3.1.7. RAW Q3 - 108 to 277 MB/s.

2.9.3.1.8. RAW Q5 - 65 to 162 MB/s.

2.9.3.2. 6144 x 2560 (6K 2.4:1).

2.9.3.2.1. RAW 3:1 - 240 MB/s.

2.9.3.2.2. RAW 5:1 - 144 MB/s.

2.9.3.2.3. RAW 8:1 - 90 MB/s.

2.9.3.2.4. RAW 12:1 - 60 MB/s.

2.9.3.2.5. RAW Q0 - 180 to 359 MB/s.

2.9.3.2.6. RAW Q1 - 120 to 287 MB/s.

2.9.3.2.7. RAW Q3 - 80 to 205 MB/s.

2.9.3.2.8. RAW Q5 - 49 to 120 MB/s.

2.9.3.3. 5744 x 3024 (5.7K 17:9).

2.9.3.3.1. RAW 3:1 - 264 MB/s.

2.9.3.3.2. RAW 5:1 - 159 MB/s.

2.9.3.3.3. RAW 8:1 - 100 MB/s.

2.9.3.3.4. RAW 12:1 - 67 MB/s.

2.9.3.3.5. RAW Q0 - 198 to 396 MB/s.

2.9.3.3.6. RAW Q1 - 133 to 317 MB/s.

2.9.3.3.7. RAW Q3 - 89 to 227 MB/s.

2.9.3.3.8. RAW Q5 - 54 to 133 MB/s.

2.9.3.4. 4096 x 2160 (4K DCI).

2.9.3.4.1. RAW 3:1 - 136 MB/s.

2.9.3.4.2. RAW 5:1 - 82 MB/s.

2.9.3.4.3. RAW 8:1 - 51 MB/s.

2.9.3.4.4. RAW 12:1 - 35 MB/s.

2.9.3.4.5. RAW Q0 - 102 to 203 MB/s.

2.9.3.4.6. RAW Q1 - 68 to 163 MB/s.

2.9.3.4.7. RAW Q3 - 46 to 116 MB/s.

- 2.9.3.4.8. RAW Q5 - 28 to 68 MB/s.
- 2.9.3.4.9. Apple ProRes 422 HQ - 117.88 MB/s.
- 2.9.3.4.10. Apple ProRes 422 - 78.63 MB/s.
- 2.9.3.4.11. Apple ProRes 422 LT - 54.63 MB/s.
- 2.9.3.4.12. Apple ProRes Proxy - 24.25 MB/s.
- 2.9.3.5. 3840 x 2160 (Ultra HD).
  - 2.9.3.5.1. Apple ProRes 422 HQ - 110 MB/s.
  - 2.9.3.5.2. Apple ProRes 422 - 73.6 MB/s.
  - 2.9.3.5.3. Apple ProRes 422 LT - 51 MB/s.
  - 2.9.3.5.4. Apple ProRes Proxy - 22.4 MB/s.
- 2.9.3.6. 3728 x 3104 (3.7K 6:5 anamorphic).
  - 2.9.3.6.1. RAW 3:1 - 177 MB/s.
  - 2.9.3.6.2. RAW 5:1 - 106 MB/s.
  - 2.9.3.6.3. RAW 8:1 - 67 MB/s.
  - 2.9.3.6.4. RAW 12:1 - 45 MB/s.
  - 2.9.3.6.5. RAW Q0 - 133 to 265 MB/s.
  - 2.9.3.6.6. RAW Q1 - 89 to 212 MB/s.
  - 2.9.3.6.7. RAW Q3 - 60 to 152 MB/s.
  - 2.9.3.6.8. RAW Q5 - 36 to 89 MB/s.
- 2.9.3.7. 2880 x 1512 (2.8K 17:9)
  - 2.9.3.7.1. RAW 3:1 - 67 MB/s.
  - 2.9.3.7.2. RAW 5:1 - 41 MB/s.
  - 2.9.3.7.3. RAW 8:1 - 26 MB/s.
  - 2.9.3.7.4. RAW 12:1 - 17 MB/s.
  - 2.9.3.7.5. RAW Q0 - 51 to 101 MB/s.
  - 2.9.3.7.6. RAW Q1 - 34 to 81 MB/s.
  - 2.9.3.7.7. RAW Q3 - 23 to 58 MB/s.
  - 2.9.3.7.8. RAW Q5 - 14 to 34 MB/s.
- 2.9.3.8. 1920 x 1080.
  - 2.9.3.8.1. Apple ProRes 422 HQ - 27.5 MB/s.
  - 2.9.3.8.2. Apple ProRes 422 - 18.4 MB/s.
  - 2.9.3.8.3. Apple ProRes 422 LT - 12.75 MB/s.
  - 2.9.3.8.4. Apple ProRes Proxy - 5.6 MB/s.

## 2.10. Software.

- 2.10.1. Native camera OS.
- 2.10.2. Color correction and non-linear video editing (NLE) application for Mac and Windows including activation key.
- 2.10.3. Camera Setup.
- 2.10.4. RAW Player.
- 2.10.5. RAW QuickLook Plugin.
- 2.10.6. RAW SDK.
- 2.10.7. RAW Speed Test.

## 2.11. Operating Systems.

- 2.11.1. Mac OS.
- 2.11.2. Windows.

## 2.12. Power.

- 2.12.1. Power Supply: 1 x External 12V power supply.
- 2.12.2. External Power Input: 1 x 2-pin locking connector.
- 2.12.3. Battery Type: NP-F570.

## 3. Warranty: 12 months.

## 4. Delivery and Payment.

- 4.1. Delivery within 45 calendar days from issuance of Notice to Proceed (NTP).
- 4.2. Should the delivery date deadline fall on a non-working day, such as a weekend, non-working

	<p>holiday, or work suspension, then the delivery date deadline shall be adjusted to the following working day.</p> <p>4.3. Bid price shall be inclusive of taxes, delivery charges, and all other related fees.</p> <p>4.4. Payment Terms: Prescribed government terms.</p>				
2	<p><b>Arm and Vest Gimbal Support - 18 kg Payload</b></p> <p>1. Background / Objectives.</p> <p>1.1. Arm and vest gimbal support to stabilize gimbal-mounted video cameras for video production projects.</p> <p>1.2. Specifications indicated herein are minimum requirements, unless otherwise stated.</p> <p>1.3. Offers of equivalent or better specifications are acceptable.</p> <p>2. Functional / Technical Specifications.</p> <p>2.1. Vest, adjustable.</p> <p>2.2. Dual arm, spring loaded.</p> <p>2.3. Monopod sled base.</p> <p>2.3.1. Sled rod material: Carbon fiber.</p> <p>2.3.2. Sled rod diameter: 15 mm.</p> <p>2.3.3. Sled 2 rod center distance: 60 mm.</p> <p>2.4. Trini-slider.</p> <p>2.5. Monopod.</p> <p>2.5.1. Material: Carbon fiber.</p> <p>2.5.2. Monopod length range: 45.8 cm to 81 cm / 18 inch to 31.8 inch.</p> <p>2.5.3. Adjustable yoke system.</p> <p>2.6. Counterweight.</p> <p>2.6.1. 0.95 kg x 2.</p> <p>2.6.2. 0.5 kg x 2.</p> <p>2.7. V mount power system with LWS bracket.</p> <p>2.7.1. D-tap to BMPCC cable.</p> <p>2.7.2. DC cable for monitor.</p> <p>2.7.3. NP-FW50 dummy battery to DC power cable.</p> <p>2.7.4. LP-E6 dummy battery to DC power cable.</p> <p>2.7.5. USB to DC cable.</p> <p>2.8. Magic Arm.</p> <p>2.9. Docking plate.</p> <p>2.10. Stabilizer balance fine adjusting head with Manfrotto plate.</p> <p>2.11. Weight bear/capacity: 15 kg maximum.</p> <p>2.12. Arm weight bear/payload: 5 kg to 18 kg.</p> <p>2.13. System weight: 14 kg.</p> <p>2.14. Gimbal compatibility: Any single handle gimbal.</p> <p>2.15. Battery support: V-mount battery.</p> <p>3. Accessories.</p> <p>3.1. Assembly and adjustment tools.</p> <p>3.2. Aluminum box.</p> <p>4. Warranty: 12 months.</p> <p>5. Delivery and Payment.</p> <p>5.1. Delivery within 45 calendar days from issuance of Notice to Proceed (NTP).</p> <p>5.2. Should the delivery date deadline fall on a non-working day, such as a weekend, non-working holiday, or work suspension, then the delivery date deadline shall be adjusted to the following working</p>	1	unit	125000.00	125,000.00

	<p>day.</p> <p>5.3. Bid price shall be inclusive of taxes, delivery charges, and all other related fees.</p> <p>5.4. Payment Terms: Prescribed government terms.</p>				
3	<p><b>UAV Drone - Dual Wide-Angle / 3x Telephoto Cameras</b></p> <p>1. Background / Objectives.</p> <p>1.1. Unmanned Aerial Vehicle (UAV) camera drone for taking aerial shots in video production and still photography projects.</p> <p>1.2. Specifications indicated herein are minimum requirements, unless otherwise stated.</p> <p>1.3. Offers of equivalent or better specifications are acceptable.</p> <p>2. Functional / Technical Specifications.</p> <p>2.1. UAV Drone.</p> <p>2.1.1. Quantity: 1 unit.</p> <p>2.1.2. Aircraft.</p> <p>2.1.2.1. Takeoff weight: 720 g.</p> <p>2.1.2.2. Maximum ascent speed: 10 m/s.</p> <p>2.1.2.3. Maximum descent speed: 10 m/s.</p> <p>2.1.2.4. Maximum horizontal speed (at sea level, no wind): 21 m/s.</p> <p>2.1.2.5. Maximum takeoff altitude: 6000 m.</p> <p>2.1.2.6. Maximum flight time: 46 mins.</p> <p>2.1.2.7. Maximum hovering time: 42 mins.</p> <p>2.1.2.8. Maximum flight distance: 32 km.</p> <p>2.1.2.9. Maximum wind speed resistance: 12 m/s.</p> <p>2.1.2.10. Maximum pitch angle: 35 degrees.</p> <p>2.1.2.11. Global navigation satellite system: GPS, Galileo, BeiDou.</p> <p>2.1.2.12. Hovering accuracy range.</p> <p>2.1.2.12.1. Vertical.</p> <p>2.1.2.12.1.1. +/- 0.1 m (with vision positioning).</p> <p>2.1.2.12.1.2. +/- 0.5 m (with GNSS positioning).</p> <p>2.1.2.12.2. Horizontal.</p> <p>2.1.2.12.2.1. +/- 0.3 m (with vision positioning).</p> <p>2.1.2.12.2.2. +/- 0.5 m (with high-precision positioning system).</p> <p>2.1.2.13. Internal storage: 8 GB.</p> <p>2.1.3. Camera.</p> <p>2.1.3.1. Image Sensor.</p> <p>2.1.3.1.1. Wide-Angle Camera.</p> <p>2.1.3.1.1.1. 1/1.3-inch CMOS.</p> <p>2.1.3.1.1.2. Effective pixels: 48 MP.</p> <p>2.1.3.1.2. Medium Tele Camera.</p> <p>2.1.3.1.2.1. 1/1.3-inch CMOS 3x medium tele.</p> <p>2.1.3.1.2.2. Effective pixels: 48 MP.</p> <p>2.1.3.2. Lens.</p> <p>2.1.3.2.1. Wide-Angle Camera.</p> <p>2.1.3.2.1.1. FOV: 82 degrees.</p> <p>2.1.3.2.1.2. Format equivalent: 24 mm.</p> <p>2.1.3.2.1.3. Aperture: f/1.7.</p> <p>2.1.3.2.1.4. Focus: 1 m to infinity.</p> <p>2.1.3.2.2. Medium Tele Camera.</p> <p>2.1.3.2.2.1. FOV: 35 degrees.</p> <p>2.1.3.2.2.2. Format equivalent: 70 mm.</p>	1	unit	85000.00	85,000.00

2.1.3.2.2.3. Aperture: f/2.8.  
2.1.3.2.2.4. Focus: 3 m to infinity.

### 2.1.3.3. ISO Range.

#### 2.1.3.3.1. Video.

##### 2.1.3.3.1.1. Normal and slow motion.

2.1.3.3.1.1.1. 100-6400 (Normal).

2.1.3.3.1.1.2. 100-1600 (D-Log M).

2.1.3.3.1.1.3. 100-1600 (HLG).

##### 2.1.3.3.1.2. Night.

2.1.3.3.1.2.1. 100-12800 (Normal).

#### 2.1.3.3.2. Photo.

2.1.3.3.2.1. 100-6400 (12 MP).

2.1.3.3.2.2. 100-3200 (48 MP).

### 2.1.3.4. Shutter Speed.

#### 2.1.3.4.1. Wide-Angle Camera.

2.1.3.4.1.1. 12 MP Photo: 1/16000 - 2 sec (2.5 - 8 sec for simulated long exposure).

2.1.3.4.1.2. 48 MP Photo: 1/8000 - 2 sec.

#### 2.1.3.4.2. Medium Tele Camera.

2.1.3.4.2.1. 12 MP Photo: 1/16000 - 2 sec (2.5 - 8 sec for simulated long exposure).

2.1.3.4.2.2. 48 MP Photo: 1/8000 - 2 sec.

### 2.1.3.5. Maximum Image Size.

2.1.3.5.1. Wide-Angle Camera: 8064 x 6048.

2.1.3.5.2. Medium Tele Camera: 8064 x 6048.

### 2.1.3.6. Still Photography Modes.

#### 2.1.3.6.1. Wide-Angle Camera.

2.1.3.6.1.1. Single Shot: 12 MP and 48 MP.

2.1.3.6.1.2. Burst Shooting.

2.1.3.6.1.2.1. 12 MP: 3/5/7 frames.

2.1.3.6.1.2.2. 48 MP: 3 frames.

2.1.3.6.1.3. Auto Exposure Bracketing (AEB).

2.1.3.6.1.3.1. 12 MP: 3/5 frames.

2.1.3.6.1.3.2. 48 MP: 3 frames at 0.7 EV step.

2.1.3.6.1.4. Timed.

2.1.3.6.1.4.1. 12 MP: 2/3/5/7/10/15/20/30/60 sec.

2.1.3.6.1.4.2. 48 MP: 5/7/10/15/20/30/60 sec.

#### 2.1.3.6.2. Medium Tele Camera

2.1.3.6.2.1. Single Shot: 12 MP and 48 MP.

2.1.3.6.2.2. Burst Shooting.

2.1.3.6.2.2.1. 12 MP: 3/5/7 frames.

2.1.3.6.2.2.2. 48 MP: 3 frames.

2.1.3.6.2.3. Auto Exposure Bracketing (AEB).

2.1.3.6.2.3.1. 12 MP: 3/5 frames.

2.1.3.6.2.3.2. 48 MP: 3 frames at 0.7 EV step.

2.1.3.6.2.4. Timed.

2.1.3.6.2.4.1. 12 MP: 2/3/5/7/10/15/20/30/60 sec.

2.1.3.6.2.4.2. 48 MP: 5/7/10/15/20/30/60 sec.

### 2.1.3.7. Photo Format.

2.1.3.7.1. JPEG.

2.1.3.7.2. DNG (RAW).

### 2.1.3.8. Video Resolution.

#### 2.1.3.8.1. Wide-Angle Camera.

2.1.3.8.1.1. H.264/H.265.

2.1.3.8.1.2. 4K: 3840 x 2160



@24/25/30/48/50/60/100 fps.  
2.1.3.8.1.3. FHD: 1920 x 1080 @  
24/25/30/48/50/60/100/200 fps.  
2.1.3.8.1.4. 2.7K Vertical Shooting: 1512 x 2688 @  
24/25/30/48/50/60 fps.  
2.1.3.8.1.5. FHD Vertical Shooting: 1080 x 1920 @  
24/25/30/48/50/60 fps.  
2.1.3.8.2. Medium Tele Camera.  
2.1.3.8.2.1. H.264/H.265.  
2.1.3.8.2.2. 4K: 3840 x 2160  
@24/25/30/48/50/60/100 fps.  
2.1.3.8.2.3. FHD: 1920 x 1080 @  
24/25/30/48/50/60/100/200 fps.  
2.1.3.8.2.4. 2.7K Vertical Shooting: 1512 x 2688 @  
24/25/30/48/50/60 fps.  
2.1.3.8.2.5. FHD Vertical Shooting: 1080 x 1920 @  
24/25/30/48/50/60 fps.

2.1.3.9. Video Format.  
2.1.3.9.1. MP4 (MPEG-4 AVC/H.264, HEVC/H.265).

2.1.3.10. Maximum Video Bitrate.  
2.1.3.10.1. H.264/H.265: 150 Mbps.

2.1.3.11. Supported File System.  
2.1.3.11.1. exFAT.

2.1.3.12. Color Mode.  
2.1.3.12.1. Wide-Angle Camera.  
2.1.3.12.1.1. Normal: 8-bit 4:2:0 (H.264/H.265).  
2.1.3.12.1.2. HLG/D-Log M: 10-bit 4:2:0 (H.265).  
2.1.3.12.2. Medium Tele Camera.  
2.1.3.12.2.1. Normal: 8-bit 4:2:0 (H.264/H.265).  
2.1.3.12.2.2. HLG/D-Log M: 10-bit 4:2:0 (H.265).

2.1.3.13. Digital Zoom.  
2.1.3.13.1. Wide-Angle Camera: 1-3x  
2.1.3.13.2. Medium Tele Camera: 3-9x.

2.1.4. Gimbal.  
2.1.4.1. Mechanical Range.  
2.1.4.1.1. Tilt: -135 degrees to 70 degrees.  
2.1.4.1.2. Roll: -50 degrees to 50 degrees.  
2.1.4.1.3. Pan: -27 degrees to 27 degrees.  
2.1.4.2. Controllable Range.  
2.1.4.2.1. Tilt: -90 degrees to 60 degrees.  
2.1.4.2.2. Pan: -5 degrees to 5 degrees.

2.1.5. Sensing.  
2.1.5.1. Omnidirectional obstacle sensing.  
2.1.5.1.1. Front and rear fisheyes lenses for forward,  
backward, left, right, and upward sensing.  
2.1.5.1.2. Bottom binocular and 3D infrared sensor.

2.1.6. Video Transmission.  
2.1.6.1. Live View Quality.  
2.1.6.1.1. Remote Controller.  
2.1.6.1.1.1. 1080p/30 fps.  
2.1.6.1.1.2. 1080p/60 fps.

- 2.1.6.1.2. Operating Frequency.
  - 2.1.6.1.2.1. 2.4000-2.4835 GHz.
  - 2.1.6.1.2.2. 5.170-5.250 GHz.
  - 2.1.6.1.2.3. 5.725-5.850 GHz.

- 2.1.6.1.3. Transmitter Power (EIRP).
  - 2.1.6.1.3.1. 2.4 GHz.
    - 2.1.6.1.3.1.1. < 33 dBm (FCC).
    - 2.1.6.1.3.1.2. < 20 dBm (CE/SRRC/MIC).
  - 2.1.6.1.3.2. 5.1 GHz.
    - 2.1.6.1.3.2.1. < 23 dBm (CE).
  - 2.1.6.1.3.3. 5.8 GHz.
    - 2.1.6.1.3.3.1. < 33 dBm (FCC).
    - 2.1.6.1.3.3.2. < 30 dBm (SRRC).
    - 2.1.6.1.3.3.3. < 14 dBm (CE).

2.1.6.1.4. Maximum Transmission Distance (free of interference).

- 2.1.6.1.4.1. FCC: 20 km.
- 2.1.6.1.4.2. CE: 10 km.
- 2.1.6.1.4.3. SRRC: 10 km.
- 2.1.6.1.4.4. MIC: 10 km.

2.1.6.1.5. Maximum Transmission Distance (with interference).

- 2.1.6.1.5.1. Unobstructed.
  - 2.1.6.1.5.1.1. Strong Interference: urban landscape, approx. 1.5-4 km.
  - 2.1.6.1.5.1.2. Medium Interference: suburban landscape, approx. 4-10 km.
  - 2.1.6.1.5.1.3. Low Interference: suburb/seaside, approx. 10-20 km.
- 2.1.6.1.5.2. Obstructed.
  - 2.1.6.1.5.2.1. Low Interference and Obstructed by Buildings: approx. 0-0.5 km.
  - 2.1.6.1.5.2.2. Low Interference and Obstructed by Trees: approx. 0.5-3 km.
- 2.1.6.1.6. Maximum Download Speed.
  - 2.1.6.1.6.1. 10 MB/s (with natively compatible remote controller).
  - 2.1.6.1.6.2. Wi-Fi 5: 30 MB/s.

2.1.6.1.7. Lowest Latency.

- 2.1.6.1.7.1. Aircraft + Remote Controller: Approx. 120 ms.

2.1.6.1.8. Antenna.

- 2.1.6.1.8.1. 6 antennas, 2T4R.

2.2. Battery.

- 2.2.1. Quantity: 3 units.
- 2.2.2. Capacity: 4241 mAh.
- 2.2.3. Weight: Approx. 267 g.
- 2.2.4. Nominal voltage: 14.76 V.
- 2.2.5. Maximum charging voltage: 17 V.
- 2.2.6. Type: Li-Ion 4S.
- 2.2.7. Energy: 62.6 Wh.
- 2.2.8. Charging temperature: 5 degrees to 40 degrees C.
- 2.2.9. Charging Time: Approx. 60 mins - 80 mins (dependent on charger type).

2.3. Remote Controller.  
 2.3.1. Quantity: 1 unit.  
 2.3.2. Maximum operating time.  
 2.3.2.1. Without charging any mobile device: 6 hours.  
 2.3.2.2. When charging a mobile device: 3.5 hours.  
 2.3.3. Maximum supported mobile device size: 180 x 86 x 10 mm (L x W x H).  
 2.3.4. Operating temperature: -10 degrees to 40 degrees C.  
 2.3.5. Transmitter Power (EIRP).  
 2.3.5.1. 2.4 GHz.  
 2.3.5.1.1. < 33 dBm (FCC).  
 2.3.5.1.2. < 20 dBm (CE/SRRC/MIC).  
 2.3.5.2. 5.1 GHz.  
 2.3.5.2.1. < 23 dBm (CE).  
 2.3.5.3. 5.8 GHz.  
 2.3.5.3.1. < 33 dBm (FCC).  
 2.3.5.3.2. < 14 dBm (CE).  
 2.3.5.3.3. < 30 dBm (SRRC).

2.4. Propellers.  
 2.4.1. Low-noise propellers (Pair).  
 2.4.1.1. Quantity: 6 units.

2.5. Battery Charging Hub.  
 2.5.1. Quantity: 1 unit.  
 2.5.2. Simultaneously charge three (3) batteries.

3. Accessories.  
 3.1. Shoulder Bag: 1 unit.  
 3.2. Gimbal Protector: 1 unit.  
 3.3. Type-C to Type-C cable: 1 unit.

4. Warranty: 12 months.  
 5. Delivery and Payment.  
 5.1. Delivery within 45 calendar days from issuance of Notice to Proceed (NTP).  
 5.2. Should the delivery date deadline fall on a non-working day, such as a weekend, non-working holiday, or work suspension, then the delivery date deadline shall be adjusted to the following working day.  
 5.3. Bid price shall be inclusive of taxes, delivery charges, and all other related fees.  
 5.4. Payment Terms: Prescribed government terms.

**TOTAL APPROVED BUDGET FOR THE CONTRACT (ABC):** **Php 400,000.00**

**GUIDELINES**

**A. Content and Format of Quotations**

1. The Quotation/s must include the RFQ Number or the PR Number indicated above
2. Bidders must specify the BRAND NAMES and MODEL NAMES/NUMBER for the following goods:
  - a. Computer and electronic equipment and its accessories or peripherals
  - b. Software applications, programs, and digital licenses
  - c. Commercial off-the-shelf electronic devices or components
3. The Quotation/s must indicate the registered business name of the company (or individual), business address and contact number. It must also include the full name and signature of the company's authorized representative.

4. BIR Certificate of Registration for new DOST-ASTI suppliers.

## **B. Eligibility Requirements**

Pursuant to Annex "H" or Consolidated Guidelines for the Alternative Methods of Procurement of the 2016 Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184, the following documents shall be submitted except for Repeat Order, Shopping under Section 52.1(a), and Negotiated Procurement under Sections 53.1 (Two-Failed Biddings), and 53.5 (Agency-to-Agency):

### **For Procurement of Goods**

1. Upon submission of quotation
  - a. Valid PhilGEPS Registration Number / Organization ID
  - b. Valid Mayor's/Business Permit
2. Upon issuance of Notice of Award (NOA)
  - a. Omnibus Sworn Statement (shall be required only for procurement projects with ABC above P50,000.00)
  - b. Income/Business Tax Return (For ABCs above P500,000.00)

### **For Procurement of Infrastructure**

1. Upon submission of quotation
  - a. Valid PhilGEPS Registration Number / Organization ID
  - b. Valid Mayor's/Business Permit
  - c. Valid PCAB License
2. Upon issuance of NOA
  - a. Omnibus Sworn Statement (shall be required only for procurement projects with ABC above P50,000.00)
  - b. Income/Business Tax Return (For ABCs above P500,000.00)

*\*Requirements under Section 53.6 (Scientific, Scholarly or Artistic Work, Exclusive Technology and Media Services) of the revised IRR of RA No. 9184 will not apply to artists such as singer, performer, poet, writer, painter and sculptor who are engaged in business.*

*\*\*Requirements under Section 53.10 (Lease of Real Property or Venue) of the revised IRR of RA No. 9184, specifically Mayor's/Business Permit, PhilGEPS Registration Number and Income/Business Tax Return will not apply to government agencies as lessors.*

*\*\*\*For methods of procurement requiring Mayor's Permit and PhilGEPS Registration Number, valid Certificate of Platinum Membership may be submitted in lieu of the said documents.*

## **C. Terms and Conditions**

1. Additional requirements, if necessary, may be requested by the BAC depending on the item to be bid;
2. All transactions are subject to creditable withholding tax and final Value Added Tax or percentage tax per revenue regulation/s of the BIR;
3. Liquidated damages of at least equal to one-tenth of one percent (0.001) of the cost of the unperformed portion for every day of delay shall be imposed by the DOST-ASTI pursuant to Section 68 of the revised IRR of RA No. 9184; and
4. The DOST-ASTI reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised IRR of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.