

BIL/ No	KETERANGAN BARANG DAN PERKHIDMATAN/ Description of Items and Services	BANYAK/ Quantity	HARGA SEUNIT/ Price Per Unit	JUMLAH/ Total
	To procure one complete, latest-generation Global Navigation Satellite System Real-Time Kinematic (GNSS RTK) surveying system for land surveying, cadastral measurement, topographic surveys and other related surveying activities.			
1	Scope of Supply The supplier shall provide a complete GNSS RTK base and rover system, field controller, compatible surveying software, surveying poles, tripod, tribach, batteries, charger, communication accessories, carrying cases, cables, commissioning and user friendly.			
a.	FJD V10L GNSS (Base and Rover)	2		
b.	E600 Controller	2		
c.	Trion Survey Perpetual Software	2		
d.	CLS24 ANTI-CRUSH BIPOD	2		
e.	Range pole bracket	2		
f.	AJ13 TRIBACH with optical plummet	2		
g.	Rotating Adapter	2		
h.	EXTENSION POLE with Height Lever	2		
i.	Heavy Duty Aluminium Tripod	2		
j.	Additional extra battery for Receiver	2		

2	Onsite 2 Days Training with refreshment (30pax) The two (2)-day RTK GNSS Field Training Course will be conducted in the field to provide participants with theoretical knowledge and practical experience in surveying using Real-Time Kinematic (RTK) GNSS technology. The course will cover equipment introduction, system setup and configuration, field coordinate measurements, data collection, accuracy verification, and survey data processing. Through this training, participants are expected to develop the skills required to operate RTK GNSS equipment correctly, conduct systematic surveying activities, and produce reliable and verifiable survey data in accordance with project requirements	1 lot		
3	Technical Specifications GNSS 1408 channels; GPS, GLONASS, BeiDou, Galileo, QZSS, NavIC and SBAS RTK accuracy Horizontal: 8mm + 1ppm RMS: Vertical 15mm + 1ppm RMS Post-processing static accuracy Horizontal 2.5mm + 0.5 ppm RMS: Vertical :5mm +0.5ppm RMS High-precision static accuracy Horizontal: 2.5mm +0.1ppm RMS: Vertical: 3.5mm +0.4ppm RMS Communications Integrated 4G modem; 2.4/5 GHz Wi-Fi; Bluetooth: NFC device pairing Built-in UHF radio Rx/Tx 410-470 MHz/902928 MHz; 2 W transmit power; protocols include TRIMTALK, TRIMMARK III, TT450S.	1 lot		

TRANSEOT, Satel 3AS 4FSK, LoRa and link rates of 9,600 bps to 19,200 bps. Ports 7-pin LEMO port, UHF antenna port and USB Type-C port Data storage 32GB internal memory; output formats NMEA 0183, RTCM 3.x and RINEX; input formats RTCM 2.x, RTCM 3.x and CMR Camera Dual 2 MP; 88° field of view; supports visual survey / photogrammetry Ingress protection IP68, dustproof and protected against continuous immersion to a depth of 1m Operating temperature -35°C to +65°C; storage temperature -40°C to +70°C Battery 7,000 mAh, 7.4V Li-on battery; 30 W PD fast charging Laser Class 2M green laser, wavelength 520 nm ± 20nm; measuring range 0-80m Display 1.41-inch colour OLED screen, 320 x 360, 274 ppi; 4 LEDs and 2 physical buttons Dimensions and weight Diameter x height: Ø130 x 83mm; approximate weight 980g Battery operating time Rover: over 15 hours; Base : 10 hours; Static: over 25 hours. Actual operating time depends on operating conditions			
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