

MAKLUMAT SPESIFIKASI ITEM

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MAKLUMAT SPESIFIKASI ITEM

No Pelawaan	: UiTM/B1/PER/SHR/B/0625/0038
Butiran Tawaran	: Cadangan Membekal, Menghantar, Memasang, Mengujilari Dan Menyelenggara Peralatan Pengajaran dan
Keterangan Item	: 0609010700027 : Electrical/Electricity/Electronic Wares - Multimeter/Multitester/Ammeter/Voltmeter
Nama Spesifikasi	: PKE 2025 (V2) 6½-Digit Dual-Display Digital Multimeter
Kuantiti	: 15.000

Butiran Keperluan

1 General

I Measures 11 input signals:

- DC voltage,
- DC current,
- True RMS AC voltage,
- AC Current,
- Two- and four-wire
- Resistance,
- Frequency,
- Continuity,
- Diode test,
- Temperature,
- Capacitance

Calit

Tawaran Syarikat

☐

II

- Signature 7-inch dual-measurement color display
- Fast reading rate of up to 1000 readings/s for speed-critical measurements
- 10,000 points logging memory for recording more data and perform analysis or better
- Standard USB and LAN for flexible PC connectivity
- USB flash drive support to copy / load configuration for repeated test setup

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Butiran Keperluan**Calit****Tawaran Syarikat**

II • Includes digital multimeter (DMM) software for remote control and data logging

III

- Combination of hard and soft keys for more intuitive front-panel operation
- Standard connectivity to the PC
- Signature 7-inch dual-measurement color display
- USB flash drive adds convenience

IV

- Simplify Data Gathering and Analysis with digital multimeter (DMM) Software
- Record measurements and export results in a few clicks
- Remotely control your DMM via LAN
- Power supply: 100 V / 120 V (127 V) / 220 V (230 V) / 240 V $\pm$ 10%, AC line frequency 45 Hz – 66 Hz, automatically sensed at power on
- Shock and vibration: Tested to IEC/EN 60086-2

2 DC specifications Accuracy $\pm$ (% of reading + % of range):

I DC voltage

- Range: 100.000 mV (min)
- Input impedance: 10 M ohm or > 10 G ohm
- Temperature coefficient: 0.0005 + 0.0005

II

- Range: 1000.00 V (max)
- Input impedance: 10 M ohm
- Temperature coefficient : 0.0005 + 0.0001

3 Resistance

I

- Range: 100.000 ohm (min)
- Test current or burden voltage: 1 mA
- Temperature coefficient : 0.0006 + 0.0005

II

- Range: 100.000 M ohm (max)
- Test current or burden voltage: 500 nA || 10 M?
- Temperature coefficient : 0.1500 + 0.0002

4 DC current

Butiran Keperluan

	Calit	Tawaran Syarikat
I	☐	
• Range: 100.0000 μA (min) • Test current or burden voltage: 0.011 V • Temperature coefficient : 0.0020 + 0.0030		
II	☐	
• Range: 10.0000 A (max) • Test current or burden voltage: 0.5 V • Temperature coefficient : 0.0050 + 0.0010		
5 Continuity		
I	☐	
• Range: 1000 ohm • Test current or burden voltage: 0.5 mA • Temperature coefficient : 0.0010 + 0.0020		
6 Diode test		
I	☐	
• Range: 5.0000 V • Test current or burden voltage: 0.5 mA • Temperature coefficient : 0.0010 + 0.0020		
7 True RMS		
I True RMS AC voltage	☐	
100 mV, 1 V, 10 V, 100 V, and 750 V ranges		
A)	☐	
• Frequency : 3 Hz to 5 Hz • Temperature coefficient/$^{\circ}$C : 0.100 + 0.003		
B)	☐	
• Frequency: 5 Hz to 10 Hz • Temperature coefficient / $^{\circ}$C : 0.035 + 0.003		
C)	☐	
• Frequency: 10 Hz to 20 kHz • Temperature coefficient / $^{\circ}$C : 0.005 + 0.003		
D)	☐	
• Frequency: 20 kHz to 50 kHz		

Butiran Keperluan

Calit Tawaran Syarikat

• Temperature coefficient / °C : 0.011 + 0.005			
E)			
• Frequency: 50 kHz to 100 kHz			
• Temperature coefficient / °C : 0.060 + 0.008			
F)			
• Frequency: 100 kHz to 300 kHz			
• Temperature coefficient / °C : 0.200 + 0.020			
II True RMS AC current			
100 µA, 1 mA, 10 mA, and 100 mA ranges			
Burden voltage : 0.011, 0.11, 0.05, 0.5 V			
A)			
•			
• Frequency: 3 Hz to 5 kHz			
• Temperature coefficient / °C : 0.015 + 0.006			
•			
B)			
• Frequency: 5 kHz to 10 kHz (typ)			
• Temperature coefficient / °C : 0.030 + 0.006			
8 Frequency accuracy ± (% of reading):			
I Frequency			
A)			
• Range: 100.000 mV to 750.00 V (min)			
• Frequency: 20 Hz – 300 kHz (min)			
• Temperature coefficient / °C, 0 °C – 18 °C, 28 °C – 55 °C: 0.005			
B)			
• Range: 10.0000 mA to 3.0000 A (max)			
• Frequency: 20 Hz – 10 kHz (max)			
• Temperature coefficient / °C, 0 °C – 18 °C, 28 °C – 55 °C: 0.005			

Butiran Keperluan**Calit****Tawaran Syarikat**

9 Temperature and capacitance specifications Accuracy $\pm$ (% of reading + % of range)

I Temperature

A)

- PT100 (DIN/IEC 751) : Probe accuracy + 0.05 °C
- Thermistor : Probe accuracy + 0.1 °C

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II Capacitance

A)

- Range: 1.000 nF (min)
- Temperature coefficient / °C: 0.05 + 0.05

☐

B)

- Range: 100 μ F (min)
- Temperature coefficient / °C: 0.05 + 0.01

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10 Supplied Accessories

I

- Power cord Per Unit
- Test leads Per Unit

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11 Manual and Documentation

I Original copies of user and operational manual of the equipment must be provided

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12 Installation , Testing and Commissioning

I

- Tenderers is required to install and commissioning the proposed equipment in the specified laboratory location in Faculty of Electrical Engineering, UiTM Shah Alam by their qualified trainers.
- Installation, testing and commissioning of the entire system should be completed within one month from the delivery date.

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13 Training

Butiran Keperluan

I Tenderers are required to provide training for the use, maintenance and troubleshoot of the equipment to the Technical Staff & Lecturer of Faculty of Electrical Engineering, UiTM Shah Alam and all training-related costs are borne by the tenderers

14 After Sales Service

Calit

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Tawaran Syarikat

- I
- Tenderers must have local service for repair services and provide on call services when required by UiTM.
 - Tenderers must provide details of the warranty (warranty 3 years)

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