NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL, SRINIVASNAGAR, MANGALORE-575025

Date: 20/09/2023

Corrigendum 1

With reference to the Bid for **": Arduino Nano 33 loT, Sensors, Relay, Cables, and Connectors"** for Ref. Number**.: Notification No: NITK/CSE/OH-35/2023/Arduino/995/4,Dt: 08-09-2023**, please note the following:

Add on to Technical Specification:

1. **Camera Image Sensor Module for Arduino Specification**

Compatible Devices	Cameras
Connector Type	VGA
Connector Gender	Male-to-Female
Colour	Any
Item Dimensions LxWxH	7 x 5 x 5 Centimeters

- High sensitivity for low-light operation, low operating voltage for embedded application, standard SCCB interface compatible with I2C interface, with AL422 3M-Bits FIFO, raw RGB, RGB (GRB4:2:2, RGB565/555/444),YUV(4:2:2) and YCbCr(4:2:2) output format, support VGA, CIF and from CIF to 40 x 30 format
- Vario pixel method for sub-sampling. Auto image control: AEC, AGC, AWB, ABF, ABLC. Image quality control: Color saturation, hue, gamma, sharpness and anti-blooming. ISP includes noise reduction and defect correction
- Support image scaling. Lens shading correction. Flicker 50/60Hz auto detection. Color saturation level auto adjust
- Edge enhancement level auto adjust. De-noise level auto adjust parameter photosensitive array: 640 x 480
- IO Voltage: 2.5V to 3.0V. Operating power: 60mW/15fpsVGAYUV. Sleeping mode: <20μA
  Example: REES52 OV7670 Robodo OV7670 640x480 VGA CMOS

2. **Soil Test Sensor**

It should be equipped with Humidity Detector, Soil Comprehensive Sensor, and Soil EC Sensor for Conductivity Moisture, Temperature, Ph, Nitrogen, Phosphorus and Potassium (All-in-One device)

3. **Relay Module Voltage and Current Rating related Specifications**

Single Channel Specification

Connector Type	Through Hole
Contact Material	Silver Copper

Contact Type	Normally Closed
Current Rating	10 Amps
Mounting Type	Flange Mount

- The 1-channel 5V control Single-Pole Double-Throw (SPDT) High-level trigger AC power relay board can be controlled directly via a microcontroller. It can switch up to 10A at 250 VAC. The inputs are isolated in order to protect any delicate control circuitry.
- Low level trigger mode | Pull down circuit to avoid malfunction | Triode drive | High impedance controller pin | Compliant with international safety standards | Power supply indicator lamp | Control indicator lamp | Indicator for relay output status
- LxWxH : 3.8 x 2.6 x 1.8 cm
- The 1-channel relay module can be used for microcontroller development board module or home appliance control. Never use a relay which exceeds the relay's contact rating mentioned on the blocks.
- Number of channels : 1 Operating Temperature Range : -40 to 85 °C Switching Voltage(AC) : 250V@10A Switching Voltage(DC) : 30V@10A Trigger Current : 20 mA Trigger Voltage : 5 V(DC)

Double Channel Specification

Operation Mode	Automatic
Coil Voltage	5 Volts
Contact Current Rating	10 Amps
Maximum Switching Current	10 Amps

- A relay is an electrically operated switch having a set of input terminals for a single or multiple control signals, and a set of operating contact terminals. This is a 2 channel relay module which can be used to activate up to 250V AC and 30V DC. The switch may have a number of contacts in multiple contact forms, such as make contacts, break contacts, or combinations thereof.
- Power indicator - Green | Relay status indicator - Red | 8550 transistor-driven | Strong driving ability | Fixed bolt hole | Easy installation | Diode effusion protection | Short response time | Board mode selection | Real-time working status indicator
- LxWxH : 43 x 43 x 17 mm
- This 2 channel relay module can be used to control various appliances, and other equipments with large current. It is ideally suited to controlling larger voltages in your project through Wi-Fi.
- Number of channels : 2 Operating Voltage (VDC) : 2.5 ~ 5.5 Trigger Voltage (VDC) : 5 Trigger Current (mA) : 20 Switching Voltage (VAC) : 250@10A Switching Voltage (VDC) : 30@10A Operating Temperature (°C) : -40 to 85 Opt. Relative Humidity(RH) : 20% ～ 85% Storage condition (°C) : -65 to 125 Transmission Distance : 400m (max.) Baud Rate : 9600

4. **Adapter with wire Specification**

Connectivity Technology	USB
Connector Type	USB, Micro USB
Compatible Devices	Arduino Nano 33 IoT
Compatible Phone Models	Most of the model

Special Feature	Input : AC 100-280V~50/60Hz, Total Output : DC 5V-2.4A, USB Port : Dual USB Ports, Weight : 42g Dimension : 6.36 X 4.22 X 2.36Cm,Warranty: 12 months,, Input : AC 100-280V~50/60Hz, Total Output : DC 5V-2.4A, USB Port : Dual USB Ports, Weight : 42g
Input Voltage	240 Volts (AC)

- 2.4A 12w Dual USB Port 5V/2.4A Wall Charger, should Come with 1M Micro USB Cable, USB Wall Charger Adapter for Arduino Nano 33 IoT.
- 【Dual Port USB Wall Charger Adapter】The USB Charger with dual ports allow you to charge 2 devices at the same time with the total output of 2.4A current. Single port allows Max 2.4A current when connecting only one device. Much more convenient and save your time effectively.
- 【Multi-Protection】 Internal protection mechanisms offers multiple Protection against short-circuit, over-temperature, over-current, over-voltage and more.
- 【Durable Design】 Robust textured casing and premium internal components ensure perfect performance regardless of scrapes, bumps, or drops. Power Source Type: Corded Electric.

5. M12 Thermocouple, Plug in Responsive Temperature Controller Sensor (Wire Length-4m)

6. Jumpier Wire male to male 8 strips (8* 40 = 320) and male to female 2 strips (2 * 40 = 80)

7. Micro USB 3A Cable**:** Micro USB 55 Tangle-Free, Sturdy Micro USB Cable with 3A Fast Charging & 480mbps Data Transmission, 10000+ Bends Lifespan & Extended 1.5m Length Black

   ✓ It Ensures High Speed Transmission And Charging By Offering 3A Fast Charging And Data Transmissions With Rapid Sync At 480 Mbps
   ✓ The Braided Skin Makes It Durable And Invincible Against External Damage So You Can Have An Absolute Hassle-Free & Tangle Free Experience
   ✓ Its Durable Pvc Housing And The Flexible Design Makes It Last 6 Times Longer Than Other Cables
   ✓ Usb Cable Offers A Perfect 1.5 Meters In Length For Smooth & Hassle-Free User Experience For Superior Charging & Data Transfer Tasks
   ✓ The Compact And Smooth Aluminium Connector Fits Most Cases Seamlessly And Resists Corrosion For Signal Purity
   ✓ Micro Usb 55 Cable Offers Universal Compatibility As It Is Compatible With Most Android Smartphones, Tablets, Pc Peripherals, Bluetooth Speakers, Power Banks, Game Consoles & All Micro-Usb Enabled Devices

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