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|  | **IOTSC AppLication form for purchase of  goods / acquisition of services** | | | |  |
| 1. **Project information** | | | | | |
| Name of Principal Investigator: Shaodan Ma | | | | | |
| IOTSC/R.C./FDCT Project Reference Number: 0087/2022/AFJ | | | | | |
| Project Title (in Chinese and English): AI驅動的6G無線智能空口傳輸理論與關鍵技術/AI-Driven Intelligent 6G Wireless Communications: Theory and Technology | | | | | |
| 1. **JUSTIFICATION FOR GOOD(S) / SERVICE(S) *(at least 50 words)*** | | | | | |
| 1. Since the wireless communication have come to the multi-modality aided less pilot overhead exploration. The true indoor environmental wireless communication may be enhanced via the digital twins virtual simulation. Thus, the Graph Processing Unit (GPU) can be utilized to enhance the computing capability for AI model training and 3D map reconstruction applications. 2. A new holder needs to be designed to mount the mmWave antenna array on the new vehicle, which includes holder and bracket. 3. A new shell needs to be designed to decorate the user vehicle, and for better safeguarding the inner equipment. | | | | | |
| 1. **DESCRIPTION FOR GOOD(S) / SERVICE(S)** | | | | | |
| **Item A: name (both in Chinese and English):** 图形计算单元/Graph Processing Unit (GPU) | | | | | |
| **Category of Budget e.g. 3.1 – Lab Equipment: Consumables** | | | | | |
| **Specification** | | **Quantity** | **Est. unit price in MOP** | **Potential vendor / provider *(optional) with contact name, email and phone number.*** | |
| NVIDIA GeForce RTX 4090 2-Slot Blower Type Graphics Card  Dimensions (LxHxW): 266.7 x 111.2 x 36.2mm  CUDA Cores: 16,384  Base Clock: 2.2 GHz  Boost Clock: 2.5 GHz  Memory: 24 GB GDDR6X  Memory Bus: 384-bit  Memory Bandwidth: 1008 GB/s  Ray Tracing Cores: 128 (3rd Gen)  Tensor Cores: 512 (4th Gen)  TDP: 450W | | 1 | 29200 | AUSALE/ service@ausale.au/1300 883 218 | |
| **Item B: name (in Chinese and English): 内存/memory** | | | | | |
| **Category of Budget e.g. 3.1 – Lab Equipment: Consumables** | | | | | |
| **Specification** | | **Quantity** | **Est. unit price in MOP** | **Potential vendor / provider *(optional) with contact name, email and phone number.*** | |
| DDR4 3200MHz | | 4 | 250 | 金士顿旗舰店 | |
| **Item C: name (in Chinese and English): 天线支架/antenna bracket** | | | | | |
| **Category of Budget e.g. 3.1 – Lab Equipment: Consumables** | | | | | |
| **Specification** | | **Quantity** | **Est. unit price in MOP** | **Potential vendor / provider *(optional) with contact name, email and phone number.*** | |
| Bracket: 40cm hight | | 1 | 100 | 佛山欧贝睿铝业 | |
| **Item D: name (in Chinese and English): 车辆外壳/vehicle shell** | | | | | |
| **Category of Budget e.g. 3.1 – Lab Equipment: Consumables** | | | | | |
| **Specification** | | **Quantity** | **Est. unit price in MOP** | **Potential vendor / provider *(optional) with contact name, email and phone number.*** | |
| Acrylic sheet | | 1 | 200 | 巨蒙旗舰店 | |
| **Item E: name (in Chinese and English): 天线固定座/antenna holder** | | | | | |
| **Category of Budget e.g. 3.1 – Lab Equipment: Consumables** | | | | | |
| **Specification** | | **Quantity** | **Est. unit price in MOP** | **Potential vendor / provider *(optional) with contact name, email and phone number.*** | |
| Holder: 20cm\*20cm | | 1 | 200 | 鑫瑞泰五金 | |