STATEMENT OF WORK

PMEL High-Frequency Universal Counters

11 May 2026

1.0. **BACKGROUND:** The 88th LRS/LGRMCD Precision Measurement Equipment Laboratory (PMEL) requires high-frequency counters to calibrate critical high-frequency Test, Measurement, and Diagnostic Equipment (TMDE), such as spectrum analyzers and signal generators. The current legacy end-of-life counters are experiencing severe physical hardware degradation, specifically failing input impedances, rendering them unserviceable. Continuing to utilize degraded equipment introduces severe measurement errors, resulting in faulty customer equipment being returned to the field and directly degrading mission readiness. This procurement will restore full calibration capability.

2.0. **SCOPE:** This Statement of Work (SOW) defines the requirement for the procurement of three (3) brand name Keysight high-frequency universal counters for the PMEL at Wright-Patterson Air Force Base (WPAFB).

3.0. **TECHNICAL REQUIREMENTS:** The contractor shall provide the following commercial-off-the-shelf (COTS) equipment. This requirement is restricted to the specific brand name manufacturer (Keysight Technologies) to ensure strict compliance with established Air Force Technical Orders (TOs) and existing automated calibration software procedures.

- 3.1. **Manufacturer**: Keysight Technologies
- 3.2. **Model**: 53230A Universal Frequency Counter/Timer (12 digits/s, 20 ps)
- 3.3. **Quantity**: Three (3) Each
- 3.4. **Required Options/Configurations**:
  - 3.4.1. Must include Channel 3 - 15 GHz Continuous Wave (CW) capability.
  - 3.4.2. Must feature a Type-N Channel 3 input connection located on the front panel of the unit.
  - 3.4.3. Must include LAN, USB, and GPIB.
  - 3.4.4. Must include Ultra High-stability Oven Controlled Crystal Oscillator (OCXO) Timebase
  - 3.4.5. Must include ANSI Z540-1-1994 Calibration.
- 3.5. **Condition**: All equipment must be strictly new manufacture. Refurbished, used, or gray-market items are unacceptable.

4.0. **TRAINING:** None Required.

5.0. **INSTALLATION:** Installation will be carried out by PMEL government contractor personnel. No installation services are required from the vendor.

6.0. **DELIVERY:**

6.1. **Location:** Delivery shall be made directly to the PMEL facility receiving area at Wright-Patterson AFB at the address listed below:

6.1.1. SHIP TO DoDAAC: F4F3AM
POC: Chris Guhl
88 LRS/LGRMCD
5060 PEARSON RD.
AREA A, BUILDING 884
WRIGHT-PATTERSON AFB, OH 45433
(937) 522-4498; christopher.guhl.1.ctr@us.af.mil

6.2. **Schedule**: The contractor shall provide an estimated delivery timeline upon contract award based on standard commercial lead times. All items shall be shipped FOB Destination.

7.0. GOVERNMENT POINT OF CONTACTS

7.1. Primary: Chad Zeretzke (937) 257-4063
7.2. Alternate: Gary Beckley (937) 257-6813

8.0. **INSPECTION AND ACCEPTANCE**: 88 LRS is designated as the office responsible for inspection and final acceptance of the supplies or services provided in this order. A receiving report shall be accomplished immediately upon receipt and acceptance of supplies. Acceptance will be based on a visual inspection for shipping damage and verification that the items match the exact manufacturer, model number, and required options specified in Section 3.0.

9.0. **WARRANTY:** The contractor shall provide the standard commercial Original Equipment Manufacturer (OEM) warranty for all units, effective upon the date of Government acceptance.

10.0. **DELIVERY PROCEDURES – COMMERCIAL VEHICLES:** All vehicles larger than a large pick-up truck are required to be inspected by the Wright-Patterson Air Force Base Commercial Vehicle Delivery Gate (CVDG) prior to entering the installation.

10.1. The company shall properly ship the system to the PMEL at WPAFB, OH. All shipping costs to include insurance will be included in contractor's proposal. Great care using standard, approved packaging methods shall be taken.

10.2. Vehicles to be inspected include, but are not limited to, the following:

10.2.1. Step van/panel truck
10.2.2. Tractor/trailer, box and flatbed containing cargo
10.2.3. Tanker trucks
10.2.4. Box trucks
10.2.5. Tour buses
10.2.6. Garbage/recycled waste trucks
10.2.7. Concrete trucks/mixers, dump trucks
10.2.8. Cranes, recreational vehicles, petroleum tanker

10.3. This inspection will be conducted at Gate 26A located off State Route 235. The following are exemptions to vehicles utilizing the CVDG:

10.3.1. If the vehicle has the product inside (concrete and asphalt trucks) and timely delivery is necessary due to product deterioration it does not need to enter the CVDG.

10.3.1.1. To bypass the CVDG, the contractor shall submit a list containing drivers' names, social security numbers and the state in which the driver's license is held for those drivers who will be entering the base.

10.3.1.2. This shall be accomplished 24 hours prior to requested entry time. If entry is requested on Monday, this list must be submitted by Friday at 1630 hours.

10.3.1.3. All lists shall be submitted to the 88th ABW/CE Directorate contract inspector. The only gates that may be used under this exemption shall be 15A, 26A, 38A, and gate 1B.

10.3.1.4. If the driver's name is not on the list, he/she will not be allowed access to the installation through these gates and the base will not assume liability for denied access.

10.4. If a delivery vehicle must exit, and then re-enter the base to complete its route, the vehicle shall be resealed upon exiting the base.

10.4.1. After initially passing through the commercial vehicle delivery gate, trucks shall be resealed at Gates 15A, 38A and 22B. The resealing of the trucks will allow them to continue to any other area of the installation (Areas A, B, or Kittyhawk) without reprocessing through the CVDG.

10.4.2. To receive resealing assistance, the drivers shall physically stop at one of the three authorized gates and request the installation entry controller to reseal their truck and provide the next location of their delivery. The controller will reseal the truck and give the delivery driver a pre-clearance form. The driver shall present the pre-clearance form to the entry controller at the next point of installation entry. This reentry can be through any base gate.

10.5. Vehicles may be subject to an inspection at any of installation entry control points during a directed random antiterrorism measure (RAM.) Any commercial vehicle, regardless of size, can be directed to the CVDG at the discretion of the installation entry controller.