

## **Statement of Work (SOW) for First Articles Testing and Delivery**

1.0 Scope. This Statement of Work (SOW) describes the testing requirements for the initial units (First Articles) of the Radio Frequency (RF) filters procured and delivered under this contract.

1.1 Background. First Articles of the desired filters are being procured and tested in order to establish confidence that the modified commercial items delivered will meet the contract's required specifications. There are three sets of requirements for each filter type: electrical, mechanical, and environmental. Threshold and objective specifications for environmental characteristics have been established, in part because some environmental tests have long durations (when possible, these longer tests have been set as objectives rather than thresholds). First Article filters will be verified against threshold requirements of all types for the purposes of acceptance of the first articles, as a condition precedent to the Government ordering additional quantities of the filters, if any, and as a condition precedent to the Government fielding any units. Testing against objective environmental characteristics will be used to communicate possible failure points and environmental limitations to end users.

2.0 Applicable Documents. The documents listed below apply to the requirements stated in this SOW.

2.1 Department of Defense specifications.

- a. RF filter specification (included in Section M of Solicitation #N00039-13-R-0046)

2.2 Department of Defense standards.

- a. MIL-STD 810G, "Environmental Engineering Considerations and Laboratory Tests," 31 Oct 2008.

2.3 Other Government documents.

- a. None.

2.4 Industry documents.

- a. None.

3.0 Requirements.

3.1 Task 1, Electrical Testing. The contractor shall test each First Article to be delivered to verify conformance with the electrical characteristics in the RF filter specification. The contractor shall deliver a test report for each unit that includes:

- The filter type ("Filter 1," "Filter 2," or "Filter 3") and serial number of the unit tested
- The power handling capacity to which the unit was tested
- S11, S12, S22, and S21 plots covering 30 MHz to 2700 MHz (each data set may be provided as multiple plots, not to exceed eight [8] pages total)
- A table listing the minimum rejection or maximum insertion loss measured across each band for which a rejection or insertion loss requirement is stated in the RF filter specification

The electrical test report may be combined with the mechanical test report for each filter.

3.2 Task 2, Mechanical Testing. The contractor shall test each First Article to be delivered to verify conformance with the mechanical characteristics in the RF filter specification. The contractor shall deliver a test report for each unit that includes:

- The filter type (“Filter 1,” “Filter 2,” or “Filter 3”) and serial number of the unit tested
- The measured weight of the filter
- Statement of the nominal connector types of the filter and assertion that these were verified through visual inspection
- Statement of the nominal dimensions of the filter and assertion that these were verified through measurement
- Statement of the package coating of the filter and assertion that this was verified through visual inspection

The mechanical test report may be combined with the electrical test report for each filter.

3.3 Task 3, Threshold Environmental Testing. The contractor shall test one or more First Articles to verify conformance with the threshold environmental characteristics in the RF filter specification. The contractor shall deliver an environmental test report containing Pretest Baseline Data and Post-test Data as described in MIL-STD-810G, Part One, Sections 5.9 and 5.13 (respectively). Test descriptions shall include an indication of whether the unit(s) tested passed or failed threshold requirements for each environmental condition. Only one threshold environmental test report is required for each order of First Articles; multiple units from that order may be utilized in the tests to reduce schedule time.

3.4 Task 4, Objective Environmental Testing. The contractor shall test one or more First Articles to evaluate performance against the objective environmental characteristics in the RF filter specification. The contractor shall deliver an environmental test report containing Pretest Baseline Data and Post-test Data as described in MIL-STD-810G, Part One, Sections 5.9 and 5.13 (respectively). Test descriptions shall include an indication of whether the unit(s) tested passed or failed objectives for each environmental condition, and any measured limits if objectives were not met. Only one objective environmental test report is required for each order of First Articles; multiple units from that order may be utilized in the tests to reduce schedule time, including units that were previously subjected to threshold environmental tests.

3.5 Task 5, Filter Delivery. The contractor shall deliver First Articles ordered to the Government per the terms of the schedule below and the contract.

4.0 Delivery Schedule.

4.1 Delivery Schedule Abbreviations. The following abbreviations are used in the delivery schedule:

Abbreviation	Definition
H	Hard Copy
E	Electronic Copy
U	Units
NLT	Not Later Than
DADOA	Days after Delivery Order award
AM/COR	Acquisition Manager/Contract Contracting Officer's Representative (COR)
TM/ACOR	Task Manager/Administering COR

#### 4.2 Schedule.

Item	Task Ref	Title	Distribution	E	H	U	Delivered
1.	5	First Half of First Articles	TM/ACOR			6	NLT 70 DADOA
2.	1	Electrical Test Reports for First Half of First Articles	AM TM/ACOR	1 1	1 1		NLT 70 DADOA
3.	2	Mechanical Test Reports for First Half of First Articles	AM TM/ACOR	1 1	1 1		NLT 70 DADOA
4.	3	Threshold Environmental Test Report	AM TM/ACOR	1 1	1 1		NLT 70 DADOA
5.	5	Second Half of First Articles	TM/ACOR			6	NLT 168 DADOA
6.	1	Electrical Test Reports for Second Half of First Articles	AM TM/ACOR	1 1	1 1		NLT 168 DADOA
7.	2	Mechanical Test Reports for Second Half of First Articles	AM TM/ACOR	1 1	1 1		NLT 168 DADOA
8.	4	Objective Environmental Test Report	AM TM/ACOR	1 1	1 1		NLT 168 DADOA