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**RFP for Development, Operation and Management of Defence Testing  
Infrastructure (DTI) for EW under DTIS**

**Corrigendum XVI**

The revised list of tests and test equipment's are as follows:

1. Reference: Appendix-P – List of tests

<b>Revised list of Mandatory Tests</b>		
<b>Sl. No. as per RFP</b>	<b>Mandatory Tests (Revised)</b>	<b>Range (Revised)</b>
1	Radar Warning Receiver tests (System-level, LRU-level and Module-level)	100MHz to 20GHz
2	Antenna testing in anechoic chamber	500MHz to 20GHz, antennas of size 50cm <sup>3</sup> Max.
3	Missile warning system tests {System-level and LRU (Sensor)-level}	250 nm to 280 nm
4	Laser warning system tests {System-level and LRU(Sensor)-level}	905nm / 1550nm
5	Jammer system tests (System Level, LRU-level and Module-level)	400MHz to 20GHz.
6	RF towed decoy tests (System Level, LRU-level and Module-level)	100MHz to 20GHz
17	Low noise amplifier test	IF: 1400-4200 MHz
18	Low power switches test	100MHz to 20GHz, 0.5W max
19	Frequency range test	100MHz to 20GHz
24	Receiver test	IF: 100MHz-4GHz Two tone and spurious response (single signal) receiver tests.
25	Integrated system test	2 to 12GHz
30	Interface tests with other sensors (Antennas, UV Sensors & Laser Sensors)	0.5 to 15m range

<b>Tests deleted from Mandatory tests list</b>		
<b>Sl. No. as per RFP</b>	<b>Mandatory Tests (Revised)</b>	<b>Range (Revised)</b>
7	Laser systems test	2.5 to 20Km at lambda = 1064nm/ 1550nm
8	PCB & Module test system (ATS 500 or equivalent)	PCB thickness range 0.3-1.4mm, 4 - 14 layers PCB
9	Component test system	upto 25MHz digital test rate, Boundary scan, Mixed signal Analysis, Vector less tests, Parametric testing
10	Boundary Scan test system	TCK frequencies upto 166MHz 4TAP, 1.1 to 3.3V in 0.1V steps 1ms, 10ms, 100ms, 1s, 10s, XJTAG signals are +5V".
11	Conformal Coating System	Multi-coating removal upto 5 materials 1. Urethane 2. Parylene 3. Epoxy 4. Silicone 5. Acrylic
12	Automatic Flying Probe Tester	Upto 4 probes top side, upto 2 bottom side probes
13	High Frequency Test and Measurement Instrument	0.1MHz to 3GHz
14	Radiometric qualification tests	15 to 90m resolution
15	Spot facing qualification tests	upto 150mm diameter
16	Radar modelling & target simulation	Upto 0.25 sq. m.
20	Waveform variance test – antenna	10MHz to 40GHz
21	Signal integrity test	100KHz to 40GHz
22	Software verification and validation	Most software from HDL to C based
23	AESA radar transmitter & receiver module test	100KHz to 40GHz
26	Hardware in the loop testing	DC to 40GHz
27	RCS measurement	RF: 400Hz to 40GHz IF: 10Hz to 10KHz Upto 0.01 sq m at -20dB
28	EM environment effects	400MHz to 40GHz, 30 to 1.5Km, Field strength: 50V/m
29	Field test (Receiver test and emitter verification)	400MHz to 40GHz

<b>Tests shifted from Additional tests list to Mandatory tests list</b>		
<b>Sl. No. as per RFP</b>	<b>Mandatory Tests (Revised)</b>	<b>Range (Revised)</b>
17	PRI test / Pulse density test / Emitter tests	1000 to 4000 pulses per second, 100MHz to 20GHz.
18		
19		
20	ECM receiver sensitivity test	Sensitivity range upto -103dBm.

<b>New Tests included in Mandatory tests list</b>		
<b>Sl. No.</b>	<b>Mandatory Tests (Revised)</b>	<b>Range (Revised)</b>
1	RWR spatial coverage test (DF measurement)	1GHz to 20GHz
2	Display luminance measurement test	0.001 to 999,900 cd/m <sup>2</sup>

2. Reference: Appendix-P – List of Test Equipment

Sl. No.	Description of Test Equipment as per RFP	Revised Description of Test Equipment
1	Agile Signal Generators for multi-channel and multi-port threat simulations	Vector Signal Generator, dual channel (Frequency range: 100 MHz to 20GHz).
2	Arbitrary waveform generators for threat simulation for baseband or wideband verification (Frequency range: DC-80 MHz)	Arbitrary waveform generator (Frequency range: DC to 80 MHz)
3	Oscilloscopes (Frequency range: DC-1GHz)	Oscilloscope (Frequency range: 100MHz to 1GHz)
4	Signal analyzers (Frequency range: 2Hz To 26.5GHz)	Signal analyzer (Frequency range: 100MHz to 20GHz)
5	Digital storage oscilloscope (Frequency range: DC-8 GHz)	Digital storage oscilloscope (Frequency range: 100MHz to 8 GHz)
6	Digitizers	Deleted
7	Flexible FPGA tools	Deleted
8	Simulators	Six Axis Motion Simulator
9	Anechoic chamber	Anechoic chamber for testing antennas of size 50cm <sup>3</sup> Max, 500MHz to 20GHz.
10	System integration facility	System integration facility
11	Field ranges	Deleted
	11.1 RADAR Bands: RF Radiation in Open test ranges from 400 MHz to 40 GHz can be configured with available Signal generators and amplifier modules 2W/5W etc. in different frequency bands	Deleted
	11.2 For HF and V/UHF Measurements Anechoic chambers can be used and In injection mode)	Deleted
12	Phase noise analyzer and VCO tester	Phase noise analyzer and VCO tester
13	Vector signal generator (Frequency range: 100kHz to 44GHz)	Signal generator (Frequency range: 100MHz to 20GHz)
14	Network analyzers (Frequency range: 100kHz to 40GHz)	Network analyzer (Frequency range: 100MHz to 20GHz)
15	Spectrum analyzer (Frequency range: 10MHz to 40GHz)	Spectrum analyzer (Frequency range: 100MHz to 20GHz)
16	Run test sequencer software (Frequency range: 9kHz to 40GHz)	Deleted
17	Radar test system	Deleted
18	High Frequency Test and Measurement Instrument (Frequency range: 0.1MHz To 3GHz)	Deleted
19	Flight line threat generator	Flight line threat generator (RF, UV, IR & Laser)
20	Missile launch simulator	Deleted

Sl. No.	Description of Test Equipment as per RFP	Revised Description of Test Equipment
21	-	Luminosity meter
22	-	General equipment such as Computers, Laptops, DC-DC & AC-DC power supplies, 115V 3 phase converters, UPS, multimeters etc.