

**NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS**  
**RF TOWER SPECIFICATION - TIRUVALLUR AND MADURAI SITES**  
**AMC FOR THE YEAR 2022-23**

<b>Specification for Wireless Modem-Cambium eForce300</b>				
<b>S No</b>	<b>Parameter</b>	<b>Specification Requirement</b>	<b>Compliance</b>	<b>Remark</b>
1	Architecture	Outdoor Unit with an integrated antenna supporting India WPC GSR Unlicensed Frequency Band 5.8 GHz	Yes	As per WPC GSR 1048E
2	WPC Certification/ ETA Certification	Certificate shall be furnished for the equipment approval from WPC India	Yes	
3	Antenna Gain	Integrated 25 dBi or better	Yes	
4	TX power	23dBm or above with control option	Yes	
5	PoE to ODU Interface	Outdoor CAT-Se/CAT 6; Maximum cable length: 100m for 10/100BaseT and 75m for 1000BaseT	Yes	
6	Net throughput	300Mbps or better	Yes	
7	Security	Should support AES 128 bit	Yes	
8	Range	Up to 20Km	Yes	
9	IP rating	IP 66 or better	Yes	
10	Operating Temperature	0 to 60 °C		

<b>Specification for PoE Adopters</b>				
<b>S No</b>	<b>Parameter</b>	<b>Specification Requirement</b>	<b>Compliance</b>	<b>Remark</b>
1	Network Characteristics	The PoE Unit should support 1X10/100/1000 Mbps Ethernet LAN port and PoE ports Auto negotiation IEEE 802.33u supporting up to 200 Mbps Ethernet Ring/Redundancy	Yes	
2	Power feeding	PoE module should support power input DC 20 to 60 VDC or AC 110-240V	Yes	
3	Make	Same make as ODU or compatible with ODU	Yes	

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<b>Specification for Aviation Lamp</b>				
<b>S No</b>	<b>Parameter</b>	<b>Specification Requirement</b>	<b>Compliance</b>	<b>Remark</b>
1	Material	Unbreakable white polycarbonate dome	Yes	
2	Base	Unbreakable Copolymer	Yes	
3	No of LED	54*3 Circumference 162 Nos.	Yes	
4	Power On/Off	Automatic	Yes	
5	Light Intensity	1500CD	Yes	
6	Latitude Range	1000 Mtrs	Yes	

<b>Specification for Tower (Light Weight Tower)</b>				
<b>S No</b>	<b>Parameter</b>	<b>Specification Requirement</b>	<b>Compliance</b>	<b>Remark</b>
1	Type of Tower	Light Weight Triangular fully galvanized	Yes	
2	Erection	Self-Supporting	Yes	
3	Maintenance	Provision should be made for climbing	Yes	
4	Minimum Weight	750 Kgs	Yes	
5	Lightning Arrestor	Franklin Rod with spikes	Yes	
6	Earthing Pattern	Tower should be earthed separately	Yes	
7	Height	18 Mtrs (NIRT Tiruvallur Site) 27 Mtrs (NIRT Madurai Site)	Yes Yes	
8	Earthing by	Graphite compound pit with carbon rod	Yes	
9	Earth resistance	Less than 2 ohms	Yes	
10	LED type Aviation lamp	At the top of twilight switch	Yes	
11	Painting	Epoxy with 2 coats of enamel paint (all by ISI) in Day and Night markings.	Yes	

**Terms & conditions for the Comprehensive Annual Maintenance Contract for RF tower  
Wireless Modem and Accessories NIRT Sites at Thiruvallur and Madurai**

1. Preventive Maintenance should be done once in three months without fail.
2. Call should be attended within 4 hours.
3. If the call is not completed within 24 Hours a replacement /stand-by should be provided.



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4. The firm should preferably have experience in maintenance similar setup
5. Preference will be given to those firms who are registered /approves by any competent government Department /organization.
6. Actual Commencement of the AMC starts only after inspecting all the listed Equipment at the site. This inspection has to be done by the vendor & acquaint themselves with all the local conditions, means of access to undertake maintenance etc., once they have awarded the contract, No claims will be accepted on this account of inspection period.
7. Replacement of Faulty items has to be of same model, brand and capacity. Otherwise, if the items are not available with manufacturer or agency may be replaced with other equivalent make.
8. AMC should cover all the required software issues.
9. All the configuration may be inspected and sticker may be pasted at the time of AMC.
10. The NIRT reserves the right to accept or reject the quotations without assigning any reasons thereof.
11. Any decision taken by the Director, NIRT at any point of time in connection with this process shall be final and conclusive and no claim or dispute from any quarter in this regard shall be entertained. The last date may be extended subject to requirement.
12. No advance payment will be made before executing the contract. The payment will be made on rendering the services in two instalments one on completion of first half of the year and the other on completion of one year with Satisfactory report of end users.
13. NIRT, Chennai will not be responsible for any delay for late receipt of quotations and quotations received late will not be considered at any cost.
14. No extra payment will be made on account of transportation, handling, loading Unloading, labour charges etc.
15. While submitting the quotations, the rate against each work and net amount to be paid, GST etc. should be specified separately.