

**NATIONAL INSTITUTE FOR RESEARCH IN TUBERCULOSIS
RF TOWER SPECIFICATION – NIRT, TIRUVALLUR SITE
AMC FOR THE YEAR 2022-23**

Specification for Wireless Modem-Cambium eForce200				
S No	Parameter	Specification Requirement	Compliance	Remark
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-5e/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		

Specification for PoE Adapters				
S No	Parameter	Specification Requirement	Compliance	Remark
1	Network Characteristics	The PoE Unit should support 1X10/100/1000 Mbps Ethernet LAN port and PoE ports Auto negotiation IEEE 802.3u 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	

Specification for Aviation Lamp				
S No	Parameter	Specification Requirement	Compliance	Remark
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	

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Specification for Tower (Light Weight Tower)				
S No	Parameter	Specification Requirement	Compliance	Remark
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)	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	

Note : Transmitter Tower Erected at Tiruvallur Collectorate Office and the Receiver Tower at NIRT Tiruvallur Unit Site.