

## GPS Clock Specification

### Mandatory Criteria

Mandatory Eligibility Criteria	Compliant (Indicate Yes or No)
1. Dual redundant GPS receiver configuration with automatic switchover as illustrated in annexure A (GPS Design), complete with power supply in redundant configuration.	
2. Each unit to be supplied with a single active antenna with compatible splitter and lightning protection kit, including inline surge arrestors and mounting hardware as illustrated in annexure A (GPS Design).	
3. Receiver must be capable of tracking 12 parallel channels.	
4. Receiver to be equipped with TCP/IP management port with SNMPv2 support.	
5. Equipment must be controlled through web interface.	
6. Power Supply: 230V 50Hz AC +/- 10%.	
7. Operating Temperature shall be in the range between 0°C to +40°C or wider.	
8. Operating Humidity: 90% non-condensing or more	
9. Output Signal: 10 MHz sine wave $\geq -5\text{dBm}$ .and $\leq +20\text{dBm}$ level	
10. No of Frequency Reference Outputs: $\geq 8 \times \text{BNC } 50 \Omega$ as illustrated in annexure A (GPS Design).	
11. Stability: $1 \times 10^{-11}$ daily average or better	
12. Frequency Accuracy: $1 \times 10^{-11}$ .or better	
13. Holdover Drift: $1 \times 10^{-9}$ /day. or better.	
14. Phase Noise @ 100Hz:- $-135\text{dBc/Hz}$ or better.	
15. 1 PPS Output Signal: square wave. TTL	
16. No of Timing Reference Outputs: $\geq 8 \times \text{BNC } 50 \Omega$ , as illustrated in annexure A (GPS Design).	
17. Timing Accuracy: 100ns peak or better	
18. Holdover Drift: $\pm 10\mu\text{s}$ (2 hour without GPS).	
19. Equipment Dimensions: 1RU (19"rack).	

Mandatory Eligibility Criteria	Compliant (Indicate Yes or No)
20. Receiver must have GPS referenced NTP server available on the management port.	
21. Equipment warranty shall be at least two years	
22. Equipment supplied must come with SLA agreement for at least 5 years after the warranty.	

### Functional Criteria

No.	Functionality Criteria	Maximum points	Documents required
1.	<b>GPS Antenna Input Connector:</b> <ul style="list-style-type: none"> <li>Any type of female with N type adapter, 50Ω = <b>10 Points</b></li> <li>N type Female, 50 Ω GPS Antenna Input Connector = <b>20 Points</b></li> </ul>	20	Specification or Datasheet stating the compliance with the requirements.
2.	<b>Support and Maintenance:</b> <ul style="list-style-type: none"> <li>No Support = <b>0 Points</b></li> <li>International Support = <b>10 Points</b></li> <li>Local Support = <b>20 Points</b></li> </ul>	20	Proof of support from supplier
	<b>Total Points</b>	<b>40</b>	

Total minimum qualifying functional score is 20 points.