

**TENDER SPECIFICATION OF RADIO COMMUNICATION SERVICE MONITOR - BN DOCKYARD
MONGLA (ADHOC)**

1. **Name of the Equipment.** Radio Communication Service Monitor/ Radio Test Set.
2. **Purpose.** For testing the transmission and reception of different radio communication equipment.
3. **Quantity** : 01 (One) complete set.
4. **Type** : To be mentioned.
5. **Brand** : To be mentioned.
6. **Model** : To be mentioned.
7. **Country of Origin** : Australia, Canada, Germany, Netherlands, Spain, Switzerland, Sweden, USA, Japan, and UK (To be mentioned).
8. **Country of Manufacture** : Australia, Canada, Germany, Netherlands, Spain, Switzerland, Sweden, USA, Japan, and UK (To be mentioned).
9. **Year of Manufacture** : 2023 or later.
10. **Manufacturer** : Name and full address with e-mail of manufacturer to be mentioned.
11. **Supplier/Local agent** : Name and full address with e-mail of Supplier to be mentioned.
12. **Qualification of Bidder.** Manufacturers of Radio Communication Service Monitor/ Radio Test Set or their authorized distributor/ agent can submit quotations through their authorized local agent in Bangladesh. In case of offer from distributor/ agent, certificate of dealership/ agency ship from Original Equipment Manufacturer (OEM) is to be submitted with the offer.
13. **Classification/Standard.** The offered items/ equipment under the scope of supply are to fulfil to the requirement of IEEE/IEC/IMO and other internationally recognized standards. The applicable classification standard(s) of offered items are to be mentioned and should be well supported by the certificates/ OEM brochures.
14. **Scope of Supply.**
 - a. 01 x Radio Communication Service Monitor/ Radio Test Set with necessary tools and accessories for immediate operation (as per para 15 to 18).
 - b. Installation, Supervision & STW (as per para 23).
 - c. Test, Trial and Acceptance (as per para 24).
 - d. Local Training (as per para 25).
 - e. Documentations (as per para 22, 27 and 28).
 - f. Optional Spares and tools (If required) (as per para 19, 20 and 21).
15. **Environmental Condition.**
 - a. Ambient Operating Temperature : 5° C to + 55° C.
 - b. Storage Temperature : To be mentioned.
 - c. Relative Humidity : Up to 95 % (Non condensing).

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Technical Specification. The Radio Communication Service Monitor/ Radio Test Set should have the following Configuration:

Ser	Description	Parameter	Remarks
1.	Frequency Range	2MHz to 1000MHz	To be mentioned
2.	Frequency Resolution	10Hz or better	
3.	Level		
	FM,M,CW	-134dBm to 0 dBm or better	To be mentioned
	AM	-134 dBm to -3 dBm (Depending on modulation depth) or better	To be mentioned
4.	Level Resolution	0.1dB or better	To be mentioned
5.	Fine Variation of Level		
	FM,M,CW	0 dB to -19.9 dB, non-interrupting	To be mentioned
	AM	0 dB to -4.9 dB, non-interrupting	To be mentioned
6.	Level Error	≤ 2 dB (for levels-128 dBm to -3 dBm, $f > 1$ MHz) or better	To be mentioned
7.	Harmonics	≤ -25 dBc or better	To be mentioned
8.	Non Harmonics	≤ -50 dBc (> 5 kHz from carrier, level -3 dBm) or better	To be mentioned
9.	Residual AM (CCITT,RMS)	$\leq 0.03\%$ or better	To be mentioned
10.	Residual FM (CCITT,RMS)		
	0.4 MHz to 250 MHz to 1000 MHz	≤ 10 Hz or better	To be mentioned
	250 MHz to 500 MHz	≤ 5 Hz or better	To be mentioned
11.	Phase Noise	≤ -110 dBc/Hz (20 kHz from carrier) or better	To be mentioned
12.	Power supply	220/ 240V AC $\pm 10\%$ 50Hz to 60 Hz	To be mentioned
13.	Dimensions (W×H×D)	-	To be mentioned
14.	Screen Size	-	To be mentioned
15.	Weight	-	To be mentioned

17. **Power Supply Available in the Installation Site.** Available power supply in the installation site is 380~440V, 50Hz, 3 Phase and 220V, 50Hz, 1 Phase. The other power supply unit (if necessary) for the Radio Communication Service Monitor/ Radio Test Set is to be provided by the Supplier.

18. **Standard Accessories.** Standard accessories must include every item and accessories, which are essential to make the offered system completely operational, whether those are mentioned in the specification or not. A list of such items/ accessories is to be provided with the quotation. Any such accessories, kit and items associated to operate said equipment are to be mentioned clearly and submit with offer mentioning item wise price.

19. **Optional Spares.** A list of spares is to be quoted separately mentioning item-wise. Buyer shall have the right to select item/ items from bidder's proposed list.

20. **Optional Items.** Optional Items/ accessories if needed to be quoted separately with item wise price. Moreover, logical explanation for such requirement is to be mentioned, item wise. Buyer shall have the right to select item/ items from bidder's proposed list.

21. **Special Tools.** 01(One) set of special tools (If required) for operation, maintenance and repair of the item is to be included with the scope of supply. List of special tools is to be provided with quotation indicating price of each item (if recommended).

22. **Documents.** 01 (One) set of following documents and manuals in English are to be provided with the Radio Communication Service Monitor/ Radio test set at free of cost at the time of delivery:

- Training Manual (the manual must include theoretical concepts and detail procedure of all the possible experiments).
- Operating Manual.
- Technical Manual with Circuit Diagram (At least up to module level) and Parts Catalogue.

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Installation, Supervision & STW.

- a. Technical documents (Installation drawings, Installation instruction, specifications etc) required for installation of the Radio Communication Service Monitor/ Radio Test Set is to be supplied by the manufacturer well in advance.
- b. Installation of the items will be done by the manufacturer's/ supplier engineer under the supervision of the purchaser.
- c. Cost of supervision of installation works, setting to work (STW) and Commissioning are to be quoted separately.

24. **Test, Trial and Acceptance.** On completion of installation, setting to work, HAT are to be conducted in the presence of supplier/ manufacturer engineer. All expenses of supplier engineer are to be borne by the supplier. Final acceptance will be given by BN (CINS) after satisfactory Test and Trial of the set.

25. **Local Training.** The manufacturer's/ supplier is to send one competent engineer who will provide onboard operation and maintenance training in a BN premises to a group of BN personnel for duration of 05 working days after necessary test/ trial and commissioning. The training should include (but not limited to) the following:

- a. System composition, configuration, principle of operation and troubleshooting.
- b. Software installation, operation and configuration for smooth conducting of all the tests.
- c. Theoretical concept and procedure of tests (practical).
- d. Repair and maintenance.

26. **Technical Support.** Technical support is to be provided to solve any maintenance and operational problem arising within the warranty period. An assurance by the Bidder stating agreement in this respect is to be submitted with the offer.

27. **Quality Assurance Certificate.** Quality Assurance Certificate in respect of the associated equipment in regards to its manufacturing and performance is to be provided by bidder with the offer and at the time of delivery of the items.

28. **Certificate.** The bidder shall provide following certificates:

- a. Manufacturer's Authorization Certificate with the offer.
- b. Pre-delivery Inspection Certificate (in English) from the OEM is to be provided by the bidder 02 weeks prior to shipment to DNW&EE, CINS (Ctg) and NSD (Ctg).
- c. Quality Assurance Certificate from the OEM with the offer and at the time of delivery.
- d. Guarantee and warranty certificates with the offer and at the time of delivery.

29. **Delivery.**

- a. The supplied items are to be delivered within **03 (three) months** after signing the contract to the following consignee:

The Commanding Officer
Naval Stores Depot
New Mooring, Chittagong,
Bangladesh

or Officer In Charge
Naval Stores Sub Depot Dhaka
Naval Unit Khilkhet
Namapara, Dhaka-1229, Bangladesh

- b. Incase of CFR, the supplier will carry the items from Chittagong sea port/ air port as applicable) to NSD Chittagong/ NSSD Dhaka (as applicable) at the cost and risk of supplier.

c. **Port of Shipment.** To be mentioned.

d. **Source of Supply.** To be mentioned.

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Brochures/ Booklet. One set of original brochures/ booklets in English having details technical information including pictures of different parts of the equipment, system connection diagram etc, about the quoted of the Radio Communication Service Monitor/ Radio Test Set is to be provided along with the quotation for evaluation/ assessment.

31. **Guarantee of Supply of-Spares.** The supplier is to give guarantee of continued supply of spares for at least 05 (Five) years at a reasonable price.

32. **Warranty.**

a. 12 (Twelve) Months warranty for trouble free operation is to be provided by the manufacturer for the item from the date of acceptance by the buyer. If any component of the supplied items becomes defective during the warranty period, the warranty shall be extended automatically (for relevant component) for the period of the subject component remains defective.

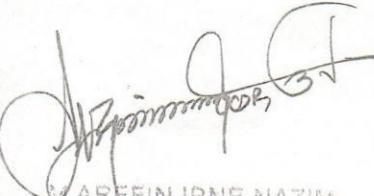
b. For warranty repair/ replacement, the supplier will collect the defective item from NSD, Chittagong/ NSSD, Dhaka (as applicable) and re-supply the same to collecting place after warranty repair or for replacement within 90 (ninety) days from the date of defect at no cost to the purchaser.

33. **Validity.** The offer shall remain valid till 30 June 2024.

34. **Price.** If the item is imported against this tender, price to be quoted without import duties.

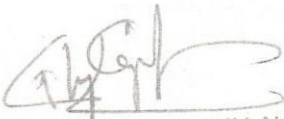
35. **Terms of Payment.** 100% Payment will be made in local currency after final acceptance by BN as per DGDP rules.

36. **Compliance Statement.** A clear and complete compliance statement of the tender supported by the product catalogue and Brochure with necessary specification and drawing/ diagram is to be submitted for evaluation of the quotation. Incomplete compliance statement will attribute to cancellation of the offer. If any clause of this specification does not commensurate with offered item practically, the deviation has to be spelt out clearly.



MAREFIN IBNE NAZIM
Member Secy
Date 08/11/2023
Staff Officer (Electrical)
Director of Naval Weapons
and Electrical Engineering
NHQ, Banani, Dhaka-1213

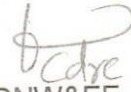

DNS (Rep)
Member
Date
Lt Commander BN
Staff Officer (Rep-II)
Naval Headquarters
Banani, Dhaka-1213


M BELLAL HOSSAIN
Lt Commander BN
Staff Officer (Rep-II)
Naval Headquarters
Banani, Dhaka-1213
Date 08/11/23


AHAMED AMIN ABDULLAH
Captain BN
Director of Naval Armament
Inspection
NHQ, Banani, Dhaka-1213
Date 08/11/23


M IQBAL
Captain BN
Director of Naval Info & Tech
Naval Headquarters
Banani, Dhaka-1213
Date 09/11/23


M MOHIBUL HOSSAIN
Commodore BN
Director of Naval Engineering
Naval Headquarters
Banani, Dhaka-1213
Date 09/11/2023


M ABDUL LATIF
Commodore BN
Director of Naval Weapons
and Electrical Engineering
NHQ, Banani, Dhaka-1213
Date 09.11.23