Specification For Communication System of Bomb Disposal Suit

No. OCFAV/BDS/Com.Sys./26/01

Dated: 05.10.2026

S. no	Parameter	Qualitative Requirement
1.	Communication system	The system is to be integrated with Bomb Suit helmet (provided by user) and should provide two way communication (Both wired & Wireless) facilitating clear communication between bomb technician's helmet and commander. It should provide a two way communication on radio and on wire between operator and base station upto a min distance of 100mts wired and 200mts wireless (LOS). Built in microphones and headphones/integrate radio communication in helmet facilitating clear communication between bomb technician and commander without compromising the comfort of the bomb technician.
2.	Two way Communication System (Both wired & Wireless)	i. Wireless hands free (VOX) communication without use of PPT ii. Wireless range of min. 200 metres iii. Hard wire spool min. 100 metre for wired communication. iv. Control module cum amplifier for communication system v. Recording facility for recording live wired communication (Optional for wireless communication) vi. Head set vii. Built in microphones and headphones/ integral radio communication in helmet facilitating clear communication between bomb technician and Commander without any hindrance in performing EOD task. viii. Power supply ix. Minimum one front facing live video camera x. Minimum one front facing search light
3.	Live video camera	Helmet must have minimum one front facing HD video camera of minimum 2 Megapixel resolution and a minimum 10 inch monitor for Live Video transmission to base station located at a distance of 200mts LOS (line of sight) and 100mts BUA (built up area) wirelessly.
4.	Ear Protection	The helmet should be incorporated with built-in microphone and speaker for the operator to hear all the conversation taking place in the vicinity. The helmet should have automatic decibel cut out system (85-95 db) to protect the ears of the operator. (OEM to furnish certificate from any NABL/International accredited laboratory.)
5.	Controls for Ventilation system	Helmet mounted fan for ventilation should be provided with control unit within easy reach and vicinity of the bomb technician.
6.	Hand operable arrangements	The system must have integrated control panel wearable on wrist or within easy reach of the bomb technician for operating various features of the helmet including light, audio, ventilation controls. No dangling wires to be present more than 15cm.
7.	Performance during mobility test of Bomb Suit	i. During mobility test, while the subject is running and walking for 100 m, subject should be able to persistently communicate with the commander without interruption.
8.	Power Pack	i. Suitable power pack should be provided, which can provide min 2.5hrs of working time with all systems switched on. ii. It should not cause inconvenience and interference to the bomb technician's ability to carry/operate other equipment and mobility of the bomb technician. iii. The power pack should have battery status indicator on it or on the hand worn controller within the clear vision of bomb technician. iv. The battery type should be rechargeable and commercially available off the shelf v. The power pack should have outlets for all accessories including helmet

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9.	Recharging	i. The recharging to be done through AC and DC charger both. Suitable charger should be provided. ii. Spare batteries to be provided
10.	Shelf Life and Spare Parts support	i. Shelf life of communication system - 7 years. ii. Maintenance support in terms of spare parts for repair – 7 years. (OEM to provide certificate for the same)

1. OEM to submit latest NABL/International accredited lab test report for Communication System as mentioned in points above during bid participation.
2. Supplier shall provide compliance statement for all the above parameters during bid participation.
3. Each bidder shall demonstrate the offered product at OCF Avadi within ten (10) days from the bid closing date and submit one (1) reference sample to the factory within the same period. Reference samples submitted by unsuccessful bidders shall be returned after placement of the order. OCFAV shall retain the successful bidder's reference sample until acceptance of the first supply against the order.

05/10/2016
GO/R&D