

संख्या. पी-63013/11/2022/मोड-1/सीसुबल/ 2253-

भारत सरकार, गृह मंत्रालय
महानिदेशालय सीमा सुरक्षा बल
(रसद निदेशालय: आधुनिकीकरण सैल)
(Email-comdtord@bsf.nic.in)
(Fax: 011-24367683)

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ब्लाक संख्या . 10,
सीजीओ काम्पलैक्स,
लोधी रोड, नई दिल्ली-03
दिनांक 18 जुलाई 2023

सेवा में,

महानिदेशक:- आसाम राईफलस (through LOAR), केन्द्रीय ओद्योगिक सुरक्षा बल,
केन्द्रीय रिजर्व पुलिस बल, भारतीय तिब्बत बोर्डर पुलिस, सशस्त्र सीमा बल,
राष्ट्रीय सुरक्षा गार्ड एवं पुलिस अनुसन्धान एवं विकास ब्योरो

विषय: अनुमोदित गुणात्मक आवश्यकता /परीक्षण निर्देशों का प्रेषण।

तकनीकी विशेषज्ञों के उप समूह द्वारा किए गये सूत्रीकरण एवं महानिदेशक सीमा सुरक्षा बल द्वारा अनुमोदित निम्नलिखित उपकरणों के गुणात्मक आवश्यकता/परीक्षण निर्देशों को आपकी अग्रिम कार्यवाही हेतु प्रेषित किया जाता है।

(i) Driver Night Sight

(ii) Fusion Monocular

संलग्न : उपरोक्तनुसार

इन्द्र देव सिंह

(इन्द्र देव सिंह)
उप महानिरीक्षक (रसद)

प्रतिलिपि :-

1. तकनीकी निदेशक
The Technical Director
राष्ट्रीय सूचना-विज्ञान केन्द्र, नोर्थ ब्लाक,
गृह मंत्रालय, नई दिल्ली
NIC, North Block, MHA
New Delhi (द्वारा ई-मेल)
(ई-मेल पता : mpsugandhi@nic.in) : आपसे अनुरोध है कि उक्त उपकरण के गुणात्मक आवश्यकता /परीक्षण निर्देशों को गृह मंत्रालय की वैबसाईट (MHA - Division of MHA+ - Police Modernisation Division- Qualitative Requirements- Qualitative Requirements of Machinery & Eqpt items with Surveillance item) पर अपलोड करने का श्रम करें।
2. SO (IT), North Block, MHA
(Through E-mail)
(E-mail address: soit@nic.in) : आपसे अनुरोध है कि उक्त उपकरण के गुणात्मक आवश्यकता /परीक्षण निर्देशों को गृह मंत्रालय की वैबसाईट (MHA - Division of MHA+ - Police Modernisation Division- Qualitative Requirements- Qualitative Requirements of Machinery & Eqpt items with Surveillance item) पर अपलोड करने का श्रम करें।
3. तकनीकी विंग, सीमा सुरक्षा बल : आपसे अनुरोध है कि उक्त उपकरण के गुणात्मक आवश्यकता /परीक्षण निर्देशों को सीमा सुरक्षा बल की वैबसाईट पर अपलोड करने का श्रम करें।
4. फाईल।

QRs/TDs OF FUSION MONOCULAR

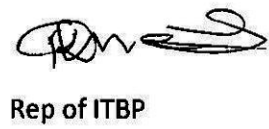
| S/N | Parameters | Quality Requirements | Trial Directive |
|-----|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | General | Fusion Monocular is equipment, which enables troops to see and operate in dark hours of night. It has both technologies in it i.e. II tube based and thermal. | - |
| 2. | Weight | 500 gm ± 10% gm including Battery. | To be physically checked by BOO. |
| 3. | Parameters | Real time night vision capabilities of 18 mm II tube technology fused with Thermal Imaging technologies for surveillance purpose. It Must be capable of being used as a hand held viewer, face & helmet mounted. Suitable adaptor should be provided with each such monocular. A durable and comfortable neck strap should be provided with each monocular. | To be physically checked on OLED display and external screen. |
| 4. | Thermal Imager parameters | I) Spectral range - 8-14 μm or better. II) Sensor Resolution 640x480 or better III) Pixel pitch 12 microns or better IV) Polarity:-Should have feature of white hot and edge detection for the ease of use. | Firm to submit Detector datasheet and certificate of manufacturer. |
| 5. | II tube Specifications | I) Resolution – 64 lp/mm II) Signal to noise ratio – 24 III) It should be military grade. IV) It should have inbuilt AGC and BSP. V) It should be auto-gated. | Firm to submit OEM Certificate for same. These parameters will be checked at IRDE Dehradun or SIW BSF during field trial. Equipment must comply all parameters. |
| 6. | Operational parameters | (i) Operating temp- -20° to 55°C (ii) Storage temp- -30°C to 55°C (iii) System should be ruggedized as per latest Mil Std 810G / JSS- 55555 in respect of humidity, shock, vibration, and bump supported by National/ International accredited lab certificate. | Firm to submit NABL certificate from any Indian accredited lab. |
| 7. | Field of View | For II tubes – FOV of 45° or more. For TI – FOV of 30° or more. | To be physically checked by BOO for both Day and TI. |


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Rep of CRPF


Rep of BSF


Rep of BSF


Rep of SSB

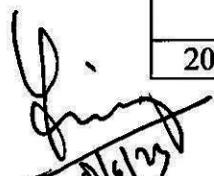

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Rep of AR


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|-----|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 8. | Recognition (In star lit conditions without moon) | For human being: Detection – minimum 250 meter. Recognition – Minimum 150 meter. | To be physically checked by BOOs. |
| 9. | Frame rate | Not less 25 FPS. | Firm to submit OEM certificate for same. To be physically checked by BOOs |
| 10. | Battery and battery back-up. | Equipment should work on a commercially available battery, which will provide 6 hours endurance to be checked on fusion mode. | To be physically checked by BOOs. |
| 11 | Transportation case | One hard rugged case for transportation for equipment and accessories and soft carry case for equipment with shoulder strap. | Hard carrying case will be dropped from 1 meter height on a hard surface; no deformation/breakage is allowed. Monocular should be fully functional after the drop test. |
| 12 | Starting time | 10 sec or less | To be Physically checked by BOOs. |
| 13 | Dioptr | +4D to – 4D or better | To be physically checked by BOOs at SIW, BSF and firm to provide a lab certificate in this regard. |
| 14 | Battery Charger | It should have a commercially charger capable to charge the battery completely in less than 3 hours. | To be physically checked by BOOs. |
| 15 | Technical Manual | Technical manual / operational manual should be provided. One spare Eye guard and OG cover, and one set of cells / battery should be provided with each sight. | To be physically checked by BOOs |
| 16 | Warranty | Minimum 2 years | Firm to submit an undertaking certificate in this regard. |
| 17 | Service Life | Minimum 10 years | Firm to submit an undertaking certificate in this regard. |
| 18 | Water resistance | The complete equipment should be functional after being submersed into water in 1 meter depth for half an hour without water leakage in to its interior. The Fusion monocular should function properly after it. | To be Physically checked by BOOs. |
| 19 | Low battery indication | Low battery indication should be provided inside the field of view (FOV) | To be Physically checked by BOOs. |
| 20 | Magnification | 1 x or better | To be Physically checked by BOOs. |


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Miscellaneous:-

- i) One additional set of battery be provided.
- ii) Cleaning kit should be provided with each of the equipment.
- iii) List of supporting test equipment's and their rate should be provided.
- iv) Supplier to submit undertaking to provide spare parts for next 10 years minimum from the date of supply.
- v) Technical manual/operational manual including repair manual of Fusion Monocular should be provided.
- vi) Repair and maintenance training should be arranged for about 3 working days to minimum 5 technicians at OEM premises and operational training to be provided at any field location. Number of persons and field locations to be specified by the users at the time of tender.
- vii) Firm to provide list of spares with its Cat part number for identification and placing indent.

To be Physically checked by BOOs.

[Signature]
8/6/23

(Shri Vinay Verma, DC (Ord), CRPF)

[Signature]
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(Shri Arvind Tomar, DC, BSF)

[Signature]
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(Shri Gaurav, DC, BSF)

[Signature]
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(Shri Kaushal Yadav, Team Comdr, NSG)

[Signature]
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(Shri H B Thapa, Nb/Sub., AR)

[Signature]

(Shri Ram Gopal Meena, Insp/Tech, ITBP)

[Signature]

(Shri Sandeep Kumar, ASI/Conn, SSB)

[Signature] 8/6/23
(Dr. Raveesh Kumar, PSO (W), BPR&D)

[Signature]
8/6/23
Shri. Des Raj, DIG (Ord) Dte, CRPF

[Signature] 8/6
Smt. V Sonal Misra, IPS
(IG Provisioning Dte)

Approved/Not approved

(Nitin Agarwal) IPS
DG BSF

[Signature]
Shri. Daljit Singh Chawdhary, IPS
SDG HQ CRPF