

## Technical specification of products

S.N	Purchaser's Specification	Bidder's Compliance Sheet
	Portable Brain Scanner	
	Manufacturer	InfraScan
	Type/Model	2000
	Country of Origin	USA
1	<b>Description of Function</b>	
1.1	Near Infrared system that provides visualization/evaluation of head trauma patients with possible intracranial hemorrhage	Yes, comply
2	<b>Operational Requirements</b>	
2.1	Handheld and lightweight	Yes, comply
3	<b>System Configuration</b>	
3.1	Portable Brain Scanner with cradle, detectors, and light source	Yes, comply
4	<b>Technical Specification</b>	
4.1	Shall have integrated processing, display, and control functions within the handheld brain scanner	Yes, comply
4.2	Shall provide graphics report for detection of traumatic supratentorial hematomas of greater than 3.5ml in volume or better	Yes, comply
4.3	Shall detect hematomas up to 2.5cm deep from the brain surface or better	Yes, comply
4.4	The scanning wavelength shall be safe for eye protection technology and shall be incorporated in device with sensor	Yes, comply
4.5	Shall have facility to transfer the data from the device to a computer	Yes, comply
4.6	Laser Diode shall have range within the infrared or near-infrared wavelength	Yes, comply
4.7	Shall have peak pulse power up to 100 milliwatt	Yes, comply
4.8	Shall have rechargeable or AA size disposable battery	Yes, comply
4.9	Battery shall provide operational time of at least 90 minutes	Yes, comply
5	<b>Accessories, spares, and consumables</b>	
5.1	Accessories:	
	- Main Unit-1	Yes, comply
	- Charger/Cradle-1	Yes, comply
	- Rechargeable battery - 2 set	Yes, comply
	- Carrying/Holding Bag-1	
6	<b>Operating Environment</b>	
6.1	The system offered shall be designed to be operational in environment of temperature: 0-45 degrees Celsius and humidity: 0-90%	Yes, comply
6.2	Power supply for cradle shall be 200-240V AC, 50/60Hz fitted with appropriate plug type D round 3 pins	Yes, comply
7	<b>Standards and Safety Requirements</b>	
7.1	ISO 13485 and EU or USFDA certificate must be submitted	Yes, comply
8	<b>User Training</b>	
8.1	Must be provided to user as per requirement	Yes, comply
9	<b>Warranty</b>	
9.1	Comprehensive warranty for complete 2 years	Yes, comply
10	<b>Maintenance Service During Warranty Period</b>	Yes, comply
10.1	During warranty period supplier must ensure corrective/breakdown maintenance as required	Yes, comply

# INFRASCANNER MODEL 2000



## "TIME LOST IS BRAIN LOST"

**In patients with head trauma the early screening for intracranial bleeding is critical.**

The timing of any required neurosurgical intervention is a major factor affecting patient outcomes.

## Handheld Brain Hematoma Diagnostics

The Infrascanner is a portable screening device that uses Near-Infrared (NIR) technology to screen patients for intracranial bleeding, identifying those who would most benefit from immediate referral to a CT scan and neurosurgical intervention. In the triage of head trauma patients, the Infrascanner can identify patients most likely to have intracranial bleeding.



A 431 patient, multi-center clinical trial, demonstrated that the Infrascanner was better than a physical examination alone.



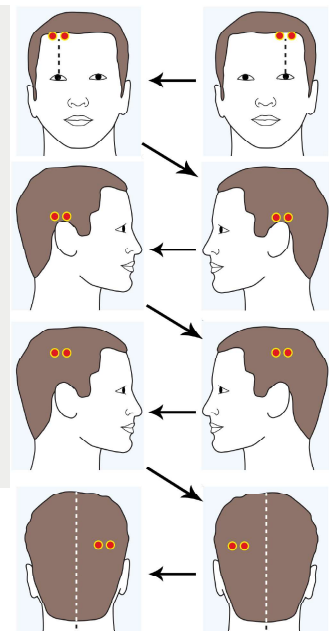
The Infrascanner is light-weight and handheld, and provides a simple, positive or negative graphic report and can be used as a simple extension of the routine neurological examination.



The Infrascanner is not a replacement for a CT scan. It is a simple, easy-to-use screening tool which can be used to identify high-risk patients, who can then be prioritized for transportation to a trauma center where a CT scan and neurosurgical treatment is available.

### Infrascanner Detection Abilities:

- Patient measurement is completed within 2-3 minutes.
- Can detect hematomas greater than 3.5 cc in volume.
- Detects hematomas up to 2.5 cm deep from the surface of the brain (or 3.5 cm from the skin surface).
- **Accuracy:** In patients with Epidural, Subdural and Intracerebral hematomas: Sensitivity = 88% / Specificity = 90.7%\*
- The New Guided Mode feature allows novice or untrained users to use the device accurately by following simple graphic instructions.



\* C. Robertson, E. Zager, R. Narayan, N. Handly, A. Sharma, D. Hanley, H. Garza, E. Maloney-Wilensky, J. Plaum, and C. Koenig, "Clinical Evaluation of a Portable Near-Infrared Device for Detection of Traumatic Intracranial Hematomas," Journal of Neurotrauma, vol. 27, pp. 1597-1604, 2010



**SIMPLE** Graphic Results in Minutes

**RAPID** Hematoma Detection

**PORTABLE** and Accurate

## INFRASCANNER MODEL 2000

### INFRASCANNER TECHNOLOGY – HOW IT WORKS

Extra-vascular blood absorbs NIR light more than intra-vascular blood since there is a greater concentration of hemoglobin (usually 10 fold) in an acute hematoma than in the brain tissue where blood is contained within vessels. The Infrascanner measures the difference in NIR light absorption at corresponding locations on the left and right sides of the head. The detection depth is within 3.5 cm of the skin surface, where blood migrates in most cases of bleeding.

### INFRASCANNER CLINICAL APPLICATIONS

#### Pre-Hospitalization Screening

Head trauma patients can be diagnosed at the site of injury by first responders. The Infrascanner can be used in villages, small towns, islands, mines, sport clubs, skiing sites, hospitals without CT Scan or Neurosurgeons and evacuation vehicles.

#### Hospital Emergency Department (ER) Screening

Traumatic Brain Injury (TBI) patients with multiple complications (like those arising from accidents) can be screened in the ER to help determine the urgency of TBI treatment with respect to other complications. In the event of multiple casualties, it is urgent to set correct priority list of patients for CT scan. Infrascanner screening of patients under alcohol or drug effect, little children etc is unique since neurological evaluation in these cases is impossible.

#### Bed Side Monitoring

Patients with apparently moderate or severe head injury can be monitored as often as necessary, at bedside to provide early detection of changes in intracranial hematomas between CT scans and decrease a frequency of CT scans for monitoring after neuro surgical procedures. Since around 20% of trauma related hematomas are delayed for more than 12 hours after the accident, Infrascanner can be used as a bedside monitoring tool for the patients left in hospital for observation period.

#### Infrascanner Military Application

The Infrascanner has a very specific application in detecting TBI on the battlefield and in routine military settings where timely triage is critical. The United States Navy and Marines have invested significantly in Infrascanner development and have successfully field tested it in Iraq. Early hematoma detection can contribute to saving lives and in planning an adequate evacuation priority of the injured.



**Bid Submission Form**

Date :- 2081/07/20

To,  
Nepal APF Hospital,  
Balambu, Kathmandu, Nepal

We, the undersigned, declare that:

(a) We have examined & have no reservations to the Bidding Documents, including Addenda No.: No addenda.

We offer to supply in conformity with the Bidding Documents & in accordance with the Delivery Schedules specified in the Schedule of Requirements the following Goods & related Services: Science laboratory Equipments. The total price of our Bid, excluding any discounts offered in item (d) below, is; Nrs **3444000** | - (Nrs. only) excluding Tax and Vat.

(b) The discounts offered and the methodology for their application are: Not applicable.

(c) Our bid shall be valid for the period of 90 days from the date fixed for the bid submission deadline in accordance with the Bidding Document, & it shall remain binding upon us & may be accepted at any time before the expiration of that period

(d) If our Bid is accepted, we commit to obtain a Performance Security in the amount as specified in 1TB 41 for the due performance of the Contract;

(e) We are not participating, as Bidders, in more than one Bid in this bidding process, other than alternative offers in accordance with the Biding Document.

(f) The following commissions, gratuities, or fees, if any, have been paid or are to be paid with respect to the bidding process or execution of the Contract:

**Name of Receipt  
Amount**

**Address**

**Reason**

**NONE**

(g) We understand that this bid, together with your written acceptance thereof included in your notification of Ward shall constitute a binding contract between us, until a formal contract is prepared & executed.

(h) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.

- (i) We declare that we are have not been blacklisted as per 1TB 3.4 and no conflict of interest in the proposed procurement proceedings & we have not been punished for an offence relating to the concerned profession of business.
- (j) We agree to permit GoN/DP or its representative to inspect our accounts & records & other documents relating to the bid submission & to have them audited by auditors appointed by the GoN/DP.

Name: Rachana Pudasaini Acharya  
In the capacity of: Managing Director  
Signed:

Regards,



**Palpasa**  
Enterprises Pvt.Ltd.

Rachana Pudasaini Acharya  
Managing Director

Duly authorized to sign the bid for & behalf of Palpasa Enterprises PVT.LTD.

Date: - 2081/07/20

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Signed:

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