

SPECIFICATION SHEET

HAND HELD DEVICE SPECIFICATION

Annexure-I

S. No.	Features	Specification	Vendor Compliance Yes/No	Remarks
1	Application Flexibility	Support 1D,2D barcode scanning, RFID & imaging		
2	Construction	Rugged. IP64 rated sealing		
3	Antennas	Integrated Internal Antennas		
4	Antenna Direction	Vendor to specify		
5	Wireless connectivity	Superior wireless connectivity; Enable real-time data communications with Integrated 802.11 a/b/g		
6	Display	Large QVGA display Good clarity and contrast.		
7	Read Range	0.2 ft. to 10 ft./6.09 cm to 304.8 cm		
8	Write Range	1 ft. to 2 ft./30.5 cm to 60.9 cm		
9	WPAN (Bluetooth Support)	Bluetooth v1.2 with BT Explorer		
10	Operating temperature	Vendor to specify		
11	Storage temperature	Vendor to specify		
12	Persistent storage and multimedia application support	Ensure retention of mission-critical data with 624 MHz enhanced memory architecture.		
13	Ergonomics	Forward scanning, pistol grip ergonomics		
14	Application Programming Interface	API (Application Programming Interface) for Microsoft® Windows® CE.NET 4.2 and Windows Mobile 5.0		
15	Expansion	SD/MMC card		
16	Memory (Flash/RAM)	64 MB/128 MB		
17	Operating system (OS)	Microsoft Windows Mobile 5.0 Premium		
18	Processor (CPU)	Intel® XScale™ Bulverde PXA270 processor at 624 MHz or equivalent.		
19	Drop specification	Multiple drops to concrete: 6 ft./1.8 m across the operating temperature range		
20	Warranty	Three years comprehensive warranty with maintenance support.		
21	Spare Batteries	Spare Batteries to be provided		
22	Desktop Docking station	With power lead and USB communication cable for Computer connectivity		
23	CISCO Compatibility	The HHD should be compatible with CISCO products		
24	Browser Support	The HHD minimum IE6 compatible.		

SPECIFICATION SHEET

RFID PRINTER SPECIFICATION

Annexure-II

S. No.	<u>Features</u>	<u>Specification</u>	Vendor Compliance Yes/No	Remarks
1	Application	Should Support protocols like EPC Gen1 Class1, EPC Gen1 Class o, EPC Gen2 Class1, Matrics 0+, ISO18000-06 and Philips UCODE 1.19.		
2	Calibration Feature	RFID calibration feature with automatic program position selection for optimal transponder placement		
3	Printing	XML - enabled printing		
4	Processor	Single 32 bit 133 MHz RISC processor or equivalent		
5	Memory	16 MB SDRAM; 4 MB non-volatile Flash memory		
6	Print Methods	Thermal transfer or direct thermal		
7	Operating Temperature	Vendor to specify		
8	Storage Temperature	Vendor to specify		
9	Print Speed	203 dpi: 10" (254mm)/sec, 300 dpi: 8" (203 mm)/sec		
10	Print Width	4" (104 mm) maximum		
11	Print Length	39" (991 mm) maximum		
12	Printer Resolution	203 dpi (8 dots/mm) to 300 dpi (12 dots/mm)		
13	Media sensors	Transmissive & Reflective		
14	Warranty	Three Years Comprehensive Warranty with maintenance support.		

SPECIFICATION SHEET

RFID TAGS SPECIFICATION

Annexure-III

S. No.	<u>Features</u>	<u>Specification</u>	Vendor Compliance Yes/No	Remarks
1	Standard	EPC Global Class1 Gen2		
2	Functionality	Read/write (user programmed)		
3	Operating Frequency Range	860 - 960 MHz		
4	Reads per sec	upto 880 reads per second		
5	Write Speed	5 tags per second - rewriteable many times		
6	Tag Data Verification	16bit CRC for reads and writes		
7	Security	16-bit lock and kill passwords		
8	Storage temperature	Vendor to specify		
9	Operating temperature	Vendor to specify		
10	Tag life	Minimum Five/Ten years		
15	Pre-Print	The Tag should be pre-printed with visual BHEL Logo as per the BHEL specification.		

SPECIFICATION SHEET

ASSET TRACKING SYSTEM SPECIFICATION

Annexure-IV

S. No.	Features	Specification	Vendor Compliance Yes/No	Remarks
1	Database	Host based asset database		
2	Support	Support Hybrid RFID & Barcode Solution		
3	Structure Support	Support multi – level organisation structure		
4	Scalability	Scalable system architecture based on .Net technologies		
5	Architecture	SAAS architecture in order to enable department wise asset management		
6	Multipurpose	An Application suite shall be available, so that the same hardware can be used for multiple applications like file tracking, vehicle tracking, inventory tracking etc.		
7	Integration	Software should get seamlessly integrated with existing applications like Oracle, SAP etc		
8	Customisation	Vendor to have the source code with them so that they can do a substantial customization as per the requirement.		
9	Flexibility	Tag printing to be configured from within the User Interface		
10	Service	Three year service contract		
11	Accessibility	Browser interface for access in a Intranet or internet or VPN		
12	Grouping	Hierarchical structure of assets to organize assets in groups		
13	Representation	Graphical representation of assets can be notified at the home page with the combination of multiple companies or categories		
14	Codification	Notifications with Colour Codes can be visualised for lease and lease to module for the assets		
15	Tracking	Schedules can be created for maintenance, verification and location transfer and can be tracked.		
16	Maintenance	Maintenance of assets to be done with HHT		
17	verification	Physical Verification of assets to be done with HHT		
18	validation	Validation of Location Transfer of Assets to be done with HHT		
19	Synchronisation	The Handheld application shall provide cradle based, wifi based data synchronization		
20	Data	Handheld data shall be working on a database		
21	Application features	The handheld application shall be able to provide features for asset ID encoding, Location transfers, asset audits, preventive maintenance		
22	Processing	System shall be able to process the data based on work orders		
23	Licensing	Unlimited and perpetual.		

Price Bid Format.

Annexure-V

Prices to be specified whether they are inclusive or exclusive of taxes

S.No.	Description (Should comply to Spec)	Make/Model To be specified	Qty	Unit Price	Total Price
			a	b	c=(a*b)
IT/C/06/09/RFID					
1	Hand Held Reader with spare batteries, Desktop docking station with power lead and USB communication cable. (BOM as per Annexure-I) with 3 year comprehensive warranty and maintenance support.		1		
2	Printer with perpetual printer license and 3 years comprehensive warranty with maintenance support. (BOM and specification as per Annexure-II)		1		
3	Ribbon for the the above said printer		10		
4	Asset Tags (Specification as per Annexure-III)		5000		
5	Asset Tracking System with unlimited and perpetual licenses as per Annexure-IV.		1		
Total					
(Signature of the Authorised Person with seal)					

ELIGIBILITY CRITERIA

		Annexure-VI	
S. No.	The Vendor / Company :	Vendor Compliance Yes/No	Remarks
1	Should have deployed RFID Systems with local support available in Hyderabad		
2	Should be able to provide a Business Application Software in SOA (Service Oriented Architecture) with matured application architecture		
3	Shall be owning the RFID Solution stack, with source code available, so that the software can be customized at the lowest level, in order to make the application completely meeting BHEL comprehensive current and future requirements.		
4	Should have deployed RFID based stock tracking solutions in heavily metallic environments and integrated with back end application. (proof to be subbmitted)		
5	The vendor should have executed atleast one single RFID project in Asset Tracking worth a minimum of Rs.One Crore (Proof of purchase order and proof of successful completion of the project to be subbmitted to BHEL)		
6	The company should be able to demonstrate SAP integration and should have implemented atleast one integration at customer location.		
7	Should be able demonstrate and present software application, which is being used in more than five client locations.		
8	Should provide a solution in such a way that it should get seamlessly integrated with oracle/SAP		
9	Should be able to offer 24X7 support		
10	The company should have the capability to encapsulate and customise the passive tags to suit the environmental demands of current and future requirements of BHEL.		