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PRASAR BHARTI
BROADCASTING CORPORATION OF INDIA
DIRECTORATE GENERAL: DOORDARSHAN

Specifications for the Batteries and Chargers

Specifications No.: SD 20/2010
Dated: 15.07.2010

1. SCOPE:

These specifications lay down the performance requirement of Batteries and Chargers to be used with XDCAM HD422 HDTV Digital Recording Format Camcorders. The Batteries and Chargers will be used for indoor and outdoor TV Coverage.

2. GENERAL:

- a) **The offered system should be from a reputed manufacturer and the quoted model should be field proven and in use by leading broadcasters. The bidder should essentially submit the list of the broadcasters to whom the quoted model has been supplied. The tenders without the proper user list are liable to be rejected.**
- b) The bill of material is given in **Appendix-I**.
- c) The list of Doordarshan centres for which the equipment are being procured is available at **Appendix-II**.

3. FEATURES REQUIRED FOR BATTERIES:

- a) The Battery should be based upon lithium ion cell technology.
- b) The battery should provide 14.4v (12.4 ~ 16.8v) nominal output voltage.
- c) It should be capable of providing approx. 7A current @14.4v
- d) The nominal capacity of the battery should be 91Wh and it should be able to run XDCAM HD422 HDTV Digital Recording Format Camcorders for 2 hours. It should also be able to run camera mounted light, RF microphone receiver or RF camera mount A/V transmitter besides the camcorder for shorter duration.
- e) The battery should have on board display to monitor capacity, remaining runtime, critical operating characteristics and conditions of the battery. In addition, remaining battery capacity information (fuel gauge) should also be available to the operator in the viewfinder of the camcorder.
- f) The battery should be lightweight and rugged in design to withstand the environment hazards such as vibration, shocks etc.



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4. TECHNICAL SPECIFICATIONS FOR BATTERIES:

S. No.	Parameters	Figures
1.	Output Voltage	14.4v Nominal (12.4 ~ 16.8v Operating)
2.	Capacity	Nominal 91 Wh; Typical 83Wh
3.	Fuse	Internal 10A
4.	Recommended operation	50-100 watts
5.	Typical run time	2 hours
6.	Weight	≤0.80kg
7.	Size	13.88 x 10.31 x 5.94 cm
8.	Charge temperature	0 to 40°C
9.	Mount	Anton Bauer Gold Mount
10.	Discharge temperature	-20 to 60°C
11.	Storage temperature	-20 to 50°C

5. FEATURES REQUIRED FOR CHARGERS:

- a) The Charger should be able to charge different size, type, and chemistry (NiCad, NiMH and Li-Ion) batteries.
- b) It should be possible to mix and match batteries on charger to select a charge routine designed specifically for that battery's particular cell chemistry.
- c) This Charge routine should maximize the reliability, performance, safety, and service life of the battery cells.
- d) It should be four position sequential and fast Charger.
- e) The battery charger should not take more than 3 hours to charge fully discharge battery to charge 100%.
- f) It should have multi-function LCD readout to display critical battery and charger data
- g) It should be fully compatible with the battery given above.
- h) It should provide regulated 70 watt DC power supply output for camera operation from AC mains.
- i) It should work on 90-240 VAC 50-60 Hz
- j) The charger should be lightweight and rugged in design to withstand the environment hazards such as vibration, shocks etc.

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6. TECHNICAL SPECIFICATIONS FOR CHARGERS:

S. No.	Parameters	Figures
1.	Charging terminals	4 (four)
2.	Operating Voltage	100-240 VAC, 50/60 Hz
3.	Camera power supply output	70 Watt, 16VDC on 4 pin XLR connector
4.	Mount	Anton Bauer Gold Mount
5.	Approx. Size	8 x 32 x 21 cm
6.	Weight	≤2.0kg
7.	Fuse	5 amp

6. COMPLIANCE:

- (a) Any substandard equipment included in the offer may cause the rejection of complete offer with the sole responsibility of bidder.
- (b) The firm should provide the offered un-priced bill of material in electronic form also in addition to the hard copy for ease of technical evaluation.
- (c) **A point-by-point compliance statement from the principal manufacturer in respect of all the points laid down in these specifications is to be enclosed along with the offer in the format given below. Mere signature on the copy of the specifications shall not be accepted as a compliance statement.**

The figures so mentioned should be supported by record of these in the technical literature enclosed with the tender and reference to the page number of enclosed literature for all features and technical specifications should be mentioned in the relevant column. Offers without the compliance statement or with incomplete compliance statement will liable to be rejected with the sole responsibility of the bidder. Any deviation from the specifications detailed in the compliance statement is to be highlighted separately.

Sr. No of DD specs.	DD specs.	Compliance (Yes/No)	Performance Fig. of equipment Offered.	Reference to the Page Number of enclosed literature	Deviations, in case of non-compliance	Optional items if any reqd. to make the sys. Compliant to DD specs.	Features in the offered Product which exceeds DD specs.

7. ACCESSORIES:

All the accessories such as power cables etc. required to complete the system should be offered by the bidder. **The bidder should certify the completeness of the system in all respect.** All the optional items

should be quoted separately. The bidder must provide enough details about such optional items to decide its utility.

8. DOCUMENTATION:

One set of printed technical and operation & maintenance manuals for all the equipments are to be provided on non-returnable basis along with the tender to facilitate the technical evaluation, otherwise the tender is liable to be ignored. The successful bidder will have to supply one set of printed operation, service and maintenance manuals with respect to each equipment.

9. GUARANTEE:

- (a) The system should be guaranteed for two years of trouble free operation from the date of supply. In case of any equipment failure including software and hardware within this period, the same shall be rectified or replaced free of cost to Doordarshan.
- (b) The guarantee should cover all hardware and modules of the complete system.

10. DEMONSTRATION:

If necessary, the firm may be asked for demonstration of the offered system as part of the technical evaluation. In such case the firm will have to make suitable arrangement for the demonstration of the offered system at Doordarshan Bhawan, New Delhi, on notice of 21 days. Accordingly the firm should be in readiness for demonstration on a notice of 21 days.

11. INSPECTION:

The equipment shall be subjected to inspection by authorized Doordarshan officials at New Delhi.

12. ENCLOSURES:

The bidder must necessarily submit the following enclosures along with the technical bid:

- (a) Compliance statement with respect to all the points of the specifications duly signed by the OEM.
The reference to the page number of enclosed literature for all features and technical specifications should be essentially mentioned in the relevant column of the compliance statement.
- (b) Technical manuals/Detailed technical literature/catalogues for all the offered products for substantiating the model no. and technical specification.
- (c) **Model specific User list of the offered product.**

(d) Any other document mentioned elsewhere in the tender document.

The tender is liable to be rejected in the absence of the above enclosures with the sole responsibility of the bidder.



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Appendix-I

Bill of Material Required

Sl. No.	Details of Item	Quantity
1.	Batteries with Anton Bauer Gold Mount plate	40 Nos.
2.	Quad Chargers for above batteries	8 Nos.
3.	Operation manual/User Guide/ Technical Manual/ Installation Manual etc.	20 Sets
4.	Service & Maintenance Manuals	20 Sets

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LIST OF DOORDARSHAN CENTRES

Sl. No.	Zone	Location of Doordarshan Centre	Qty.	
			Batteries	Chargers
1.	North Zone	Delhi	10 Nos.	2 Nos.
2.	East Zone	Kolkata	10 Nos.	2 Nos.
3.	South Zone	Chennai	10 Nos.	2 Nos.
4.	West Zone	Mumbai	10 Nos.	2 Nos.
TOTAL			40 Nos.	8 Nos.

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G. L.