

Government of India  
BHABHA ATOMIC RESEARCH CENTRE  
Health Safety & Environmental Group  
Radiation Safety Systems Division

**Enquiries**

Ref: RSSD/RMS&DS/AJ/AGSS/ 2019/

Date: January 18, 2019

Quotation is invited for the fabrication of Radiation Monitoring Watch as per the specifications in Annexure -1. (10Nos).

Terms and conditions: Quotation should reach the undersigned at the given address on or before 17 February 2019 upto 14:00.

1. Quotation should be sent in a sealed envelope marked with "Quotation for Fabrication of Radiation Watch" to the under signed at the following address.

Mr. Amit Jain  
Scientific Officer (F)  
RMS&DS  
Radiation Safety Systems Division  
Mumbai – 400 085

2. Any offer can be rejected without assigning any reason
3. Quotation must be send only through Govt Post.
4. Cost should include material, labour and any other expenditure incurred for successful completion of this assignment.
5. Rate should be type written only and hand written rate shall not be considered.
6. Pl quote HSN Code of the item in their quataion for GST verification.
7. Quotation should be kept valid for 45 days from 17 February 2019.

For any clarification the undersigned may please be contacted.

*Amit*  
18/1/19  
(Amit Jain)

## Annexure 1

(10 NOS).  
**Fabrication of Radiation Monitoring Watch require following steps:**

1. **PCB Designing:** Layout and Fabrication of 4 layer circular PCB with maximum dia. of 45mm. (circuit will be provided, components list as per annex 1a)
2. **Procurement of components:** BOM of single unit of monitor is in annexure 1a
3. **Design and fabrication of Radiation Watch enclosure using 3D printing:** Enclosure will be circular wrist watch like structure along with leather wrist watch straps and transparent glass. It should accommodate above PCB perfectly and 3 revisions may be required for the same.
4. **Fabrication of Radiation Watch Enclosure using Vaccum cast:** After the approval of 3D printed design from indenting officer, final waterproof Radiation monitoring wrist watch enclosures have to be fabricated using vaccum cast. Enclosure should have compatible leather wrist watch straps and transparent glass.

## Annexure 1a

Component list for each monitor:

Sr. No.	Quantity	Part number	Description
1	4	ZRB18AR61E106ME01L	10uF/25V
2	4	C1206C102KDGACAUTO	1nF/1kV
3	2	C0603C102M3RACTU	1nF/25V
4	4	CC0603KRX5R8BB105	1uF/25V
5	2	NSR02100HT1G	NSR02100HT1G
6	1	MM3Z43VT1G	MM3Z43VT1G
7	1	MM3Z4V7T1G	MM3Z4V7T1G
8	1	ZP1313	GM tube
9	1	SMTU 2450N-LF	Battery holder
10	1	54550-1033	LCD top contact
12	1	SRR6603-103ML	10mH
13	1	7BB-20-6	buzzer
14	1	CRCW12060000Z0EAC	0ohm/0.25W

15	2	CRCW120610R0FKEAC	10ohm/0.25W
16	2	CRCW060347K0FKEAC	47k
17	1	CRCW120610M0FKEAC	10M/(>100V)
18	2	CRCW120610R0FKEAC	10ohm/(>400V)
19	1	CRCW0603200RFKEAC	200ohm/(>100V)
20	2	RCV12062M20JNEA	2M2/(>400V)
21	1	TC33X-2-503E	50k pot
22	2	CRCW06031K00FKEAC	1k
23	2	CRCW06034K70FKEAC	4k7
24	3	CRCW060310K0FKEAC	10k
25	2	CRCW06031M00FKEAC	1M
26	4	CRCW0603100RFKEAC	100E
27	1	CRCW06030000Z0EAC	0E
28	2	KT11B2SAM34LFS	2.24mm plunger
29	1	PA0367ANLT	Transformer
30	1	MMBT2222A-7-F	nnp BJT
31	1	IDM10G120C5XTMA1	Schottky diode
32	2	BSP372NH6327XTSA1	Mosfet
33	1	LS013B7DH03	LCD Display
34	1	PIC24FJ128GA202-I/SS	microcontroller
35	1	KT3225T32768EAW30TAA	32.768KHz TCXO

*Amit*  
(Amit Jain)