BHARAT ELECTRONICS LIMITED (A Govt. of India Enterprise under the Ministry of Defence)

Advertisement # 04/ICDC/PD&IC

RECRUITMENT OF ANALOG/RF/MIXED SIGNAL IC DESIGN PROFESSIONALS

Bharat Electronics Limited (BEL) is a premier Indian Public Limited Company in Professional Electronics. It holds a portfolio of over 350 different products in the areas of Military Communication, Radars, Naval Systems, C4I Systems, Weapon Systems, Homeland Security, Telecom and Broadcast, Electronic Warfare, Tank Electronics and Electro Optics.

COMPONENTS Strategic Business Unit is involved in design, development and manufacturing of wide variety of components, modules and sub-systems for Defence, Aerospace and Commercial applications. It houses world-class manufacturing facility for manufacturing RF & Microwave Supercomponents.

PD&IC is a new centre of excellence at company level for Product R&D. Futuristic technological products and solutions will be developed in niche technological areas, in various business segments of professional electronics, in the upcoming modern design facility with highest ever R&D investment in BEL.

Towards this BEL invites applications from experienced & competent engineering professionals having a strong background in ICDC & RFIC Design for its newly setup "Product Development & Innovation Centre" (PD&IC) and Components SBU at Bengaluru.

QUALIFICATION & EXPERIENCE:

Sl. No	Position	Job Code	Grade	Scale of Pay/CTC	No of Posts	Maximum age as on 01.12.2017	Qualification	Minimum Experience	Post Qualification Work experience
1	Deputy Manager	E24- ICDC/04		Rs.60000 - 3% - 180000 CTC 15 Lakhs (Approx.)	1	36 years	Full time B.E/B.Tech in Electronics / Electronics & Telecommunication / Electronics & Communication / Communication / Telecommunication from AICTE approved institution / University, NITs, IITs with First Class for GEN / OBC candidates & Pass Class for SC/ST/PWD Candidates.	8 Years	 The candidate shall have post qualification work experience in the following relevant areas: Full Custom Analog/RF/Mixed Signal IC Design experience in CMOS / BiCMOS/Bipolar/SiGe technologies. Experience in handling full chip tape-outs desirable. The candidate must be able to handle all aspects of Analog / RF/Mixed Signal design, from specification review to simulation, layout, and prototype testing. Knowledge of Semi/Full Custom EDA Tool Flows: Cadence/ Synopsis/Mentor Graphics Good understanding of Layout techniques and parasitic effects. Post Silicon Validation Experience is desirable
							M.E/M.Tech in VLSI Design/related specialization from AICTE approved institution / University, NITs, IITs with First Class for GEN / OBC candidates & Pass Class for SC/ST/PWD Candidates.	6 Years	
							MS from AICTE approved Institutions/University in the relevant specialisation		
							Ph.D in relevant area from AICTE approved Institution / University	3 Years	NOTE: Proof for work experience for Sl. No. 1 to 6 above, to be attached along with the application
		E24- PD&IC/04	E-IV		1		Full time B.E/B.Tech in Electronics / Electronics & Telecommunication / Electronics & Communication / Communication / Telecommunication from AICTE approved institution / University, NITs, IITs with First Class for GEN / OBC candidates & Pass Class for SC/ST/PWD Candidates.	8 Years	The candidate shall have post qualification work experience in the following relevant areas: 1) RF IC design and development, RF circuit design, RF simulation, verification, testing of RF subsystems, knowledge of RF instruments. 2) Experience in using RF / Microwave Circuit & System Simulation tools such as ADS, AWR, CST and EM tools like HFSS or Momentum. 3) Ability to handle all aspects of RF Power amplifier designs (using switches, combiners, RF driver amplifiers, power amplifier devices, matching, biasing circuits), from specification review to simulation, layout and prototype testing. NOTE: Proof for work experience for Sl. No. 1 to 3 above, to be attached along with the application
							M.E/M.Tech in RF/Microwave Engineering/related specialization from AICTE approved institution / University, NITs, IITs with First Class for GEN / OBC candidates & Pass Class for SC/ST/PWD Candidates.	6 Years	
							MS from AICTE approved Institutions/University in the relevant specialisation		
							Ph.D in relevant area from AICTE approved Institution / University	3 Years	

Sl. No	Position	Job Code	Grade	Scale of Pay/CTC	No of Posts	Maximum age as on 01.12.2017	Qualification	Minimum Experience	Post Qualification Work experience
	Senior Engineer	E23- ICDC/04		Rs.50000 - 3% - 160000 CTC 12.5 Lakhs (Approx.)	2		Full time B.E/B.Tech in Electronics / Electronics & Telecommunication / Electronics & Communication / Communication / Telecommunication from any AICTE approved Institution / University, NITs, IITs with First Class for GEN / OBC candidates & Pass Class for SC/ST/PWD Candidates.	4 Years	 The candidate shall have post qualification work experience in the following relevant areas: Full Custom Analog /RF/Mixed Signal IC Design experience in CMOS/BiCMOS/Bipolar/SiGe technologies. Experience in Design and Simulation of Analog/RF/Mixed Signal Building Blocks. Knowledge of Semi/Full Custom EDA Tool Flows: Cadence/ Synopsis/Mentor Graphics Good understanding of Layout techniques and parasitic effects. NOTE: Proof for work experience for Sl. No. 1 to 4 above, to be attached along with the application
							M.E/M.Tech in VLSI Design /related specialization or related specialization from any AICTE approved institution / University, NITs, IITs with First Class for GEN / OBC candidates & Pass Class for SC/ST/PWD Candidates. MS from AICTE approved Institutions/University in the relevant specialisation	2 Years	
2		E23- PD&IC/04	E-III		2	32 years	Full time B.E/B.Tech in Electronics / Electronics & Telecommunication / Electronics & Communication / Communication / Telecommunication from any AICTE approved Institution / University, NITs, IITs with First Class for GEN / OBC candidates & Pass Class for SC/ST/PWD Candidates.	4 Years	The candidate shall have post qualification work experience in the following relevant areas: 1) Knowledge of RF circuit design, RF simulation and EM simulation tools: ADS, AWR, and HFSS etc, verification and testing 2) Power Amplifier circuit design, RF simulation, PCB design for RF circuits, high power testing, knowledge of RF test instruments. 3) Test, troubleshoot, and characterization of active and passive RF MMICs and devices required for design of power amplifiers and similar subsystems.
							M.E/M.Tech in RF/Microwave Engineering or related specialization from any AICTE approved institution / University, NITs, IITs with First Class for GEN / OBC candidates & Pass Class for SC/ST/PWD Candidates.		
							MS from AICTE approved Institutions/University in the relevant specialisation		NOTE: Proof for work experience for Sl. No. 1 to 3 above, to be attached along with the application
3	Deputy Engineer	E22- ICDC/04	E-II	Rs.40000 - 3% - 140000 CTC 10 Lakhs (Approx.)	2	28 years	Full time B.E/B.Tech in Electronics / Electronics & Telecommunication / Electronics & Communication / Communication / Telecommunication from any AICTE approved Institution / University with First Class for GEN / OBC candidates & Pass Class for SC/ST/PWD Candidates.	I Year	 The candidate shall have post qualification work experience in the following relevant areas: Hands on experience in Full Custom layout design of analog /RF building blocks. Experience in running DRC, LVS for Block Level and Full Chip. Knowledge of Semi/Full Custom EDA Tool Flows: Cadence/ Synopsis/Mentor Graphics
									NOTE: Proof for work experience for Sl. No 1 to 3 above, to be attached along with the application

- 1. **Age Relaxation:** SC-5 years, ST-5 years, OBC (Non–Creamy Layer) 3 years. For Candidates belonging to Persons with Disability (PWD) category having minimum 40% disability will get 10 (ten) years relaxation in addition to the relaxation applicable to SC/ST/OBC mentioned above.
- 2. <u>Mode of Selection</u>: Selection will be through a Written Test followed by an Interview for only those candidates who qualify in the written test.
- 3. The Cut-off date for deciding the maximum permissible age and experience (Post Qualification Experience) shall be 01.12.2017. In order to compute post qualification work experience, the period of work experience starting from the month immediately succeeding the month of final examination in which candidate acquire the essential educational qualification shall be considered.
- 4. Experience certificates/Documents issued by the employer clearly indicating period of employment should be enclosed. Candidates may also enclose a separate write up describing the relevant post qualification experience gained/held by them. *Teaching experience or/and training acquired will not be considered as relevant experience.* Candidates possessing Industrial experience only need to apply.
- 5. Candidates working in PSUs/Government/Quasi Government organizations should submit the application through proper channel or produce No Objection Certificate at the time of the interview. Such candidates, who are unable to produce NOC at the time of interview, will not be interviewed.

6. **General Instructions:**

- a. In addition to Basic Pay, other allowances like Dearness allowance, House Rent Allowance, 35% of the Basic Pay as perquisites, Performance Related Pay (PRP), Group Insurance, Medical facilities, Provident Fund, Pension, Gratuity as per the Company's rules will be part of the remuneration package.
- b. In case there is no mention of specialization in the qualifying degree as required in the minimum essential educational qualification, candidates required to submit a certificate at the time of interview from their University/Institute with a clear mention to their specialization in the qualifying degree.
- c. Candidates called for interview shall be reimbursed Travelling allowance (Train) to and fro from their correspondence address/place of work in India on production of actual tickets by the shortest route. E-II & E- III grade: Sleeper Class and E –IV grade: AC-II. Local travel cost, if any, shall be borne by the candidates.
- d. Request for change of category (GEN/SC/ST/OBC) once declared in the application will not be entertained.
- e. Mere fulfilling the minimum requirement of qualification and experience will not vest any right on the candidates to be called for the interview/written Test. BEL reserves the right to shortlist the candidates based on the nature of past relevant experience acquired post prescribed qualification.
- f. Applications received after the last date for submission will not be considered.
- g. In the event any applicant has litigated with his/her employer in the past, the same should be clearly mentioned in brief.
- h. Applications that are incomplete, not in the prescribed format, without the required enclosures, will be summarily rejected without assigning any reasons and no correspondence in this regard will be entertained.
- i. Only Indian nationals need to apply.
- j. The Caste / Disability Certificate should be strictly in the format available on the BEL website failing which, candidates will be considered under 'General' category, provided they are otherwise meeting all other criteria stipulated for General Candidates.
- k. Candidates are required to possess at least one valid e-mail id, which is to be entered in the application form.
- 1. Information pertaining to the written test / interview will be sent by e-mail to the email Id furnished by the candidate.
- m. BEL will not be responsible for bouncing of any e-mail sent to the candidates.
- n. The number of posts indicated above may vary based on the actual requirement at the time of selection.
- o. Candidates belonging to GEN/OBC category are required to pay an application fee of Rs. 500/-. Candidates may go through all the instructions and eligibility criteria carefully before remitting the Application Fee. Application fee is non-refundable.

An application fee of Rs.500/- needs to be remitted through

- Online mode i.e. SBI Collect OR
- SBI Branch

Online mode i.e. SBI Collect: Candidates are requested to read the details and screenshots for making the payment. Screenshots and instructions for the same are provided with the advertisement. Candidates may make the payment by clicking on the link provided below the web advertisement.

Candidates have to enter the "SBI Collect Reference Number" generated after making payment, in the Application Form. Payment receipt should be attached to the hard copy of the Application form along with other enclosures.

SBI Branch: Candidates can also make the payment by approaching SBI branch. You have to select SBI branch in the payment option and download the pre-printed challan generated through SBI Collect and deposit the application fee of Rs. 500/- plus applicable bank charges in any SBI Branch. The candidate should ensure to obtain the seal and signature of the bank official on the challan.

- p. Canvassing in any form will result in disqualification. BEL reserves the right to debar / disqualify any candidate at any stage of the selection process for any reason whatsoever.
- q. Candidates who meet the above requirement may apply in the format available on the BEL website www.bel-india.com (click on Careers and Recruitments). Applications should be accompanied by the following documents:
 - i) A document as proof of date of birth
 - ii) Semester wise marks cards of BE / B Tech. (Candidates who have completed bachelor's degree after Diploma have to enclose all the semester copies of diploma certificates also)
 - iii) Semester wise marks cards/Grade card of ME / M Tech./ MS
 - iv) BE / B Tech / ME / M Tech/ MS Degree Certificate
 - v) Proof of Experience
 - vi) A separate write up mentioning the details of the post qualification experience.
 - vii) Caste / Disability certificate in case of SC / ST / PWD (if applicable, strictly in the prescribed formats, which are available on the BEL website. OBC certificate should be dated on or after 01.12.2016).
 - viii) Online Payment Receipt or Bank Challan (Original Depositor's Copy) with signature of the bank authorities and bank seal (if applicable). Photocopy of the bank challan will not be accepted.
 - ix) No Objection Certificate (if applicable)
 - x) In addition to all the above relevant documents, PhD candidates should also enclose 1) Convocation Certificate 2) Topic Registration Certificate OR PhD Registration Certificate OR Synopsis Acceptance by the Board of Studies.

Applications complete in all respects, may be sent to the Deputy Manager (HR/A&F), Bharat Electronics Limited, Jalahalli Post, Bengaluru – 560 013 on or before 20.01.2018 the post (with job code) applied for should be superscribed on the envelope.