

# REPORT ON TECHNO ECONOMIC VIABILITY STUDY OF PROPOSED FACILITY FOR ELECTRONICS MANUFACTURING SERVICES BY RANEAL ADVANCED SYSTEMS PRIVATE LIMITED

Valuation  
Investment Banking  
Restructuring  
Transaction Services  
Transaction Tax  
Advisory Services

# TABLE OF CONTENT

Sr. No.	Particulars	Page No.
1	Disclaimer	3
2	Executive Summary	8
3	Scope & Limitations	11
4	Sources of Information	14
5	Promotor Profile	16
6	Industry Scenario	18
7	Project Description	23
8	Approvals & NOC's	38
9	Project Cost & Means of Finance	41
10	Technical Analysis	43
11	Financial Analysis	48
12	Conclusion	63
A	Annexure – Glossary, Exhibits	66

# DISCLAIMER

1

# 1. DISCLAIMER



- THIS REPORT ("REPORT") AND ITS CONTENTS ARE CONFIDENTIAL. BY ACCEPTING COPY OF THIS REPORT, THE RECIPIENT AGREES TO KEEP ITS CONTENTS, AND ANY OTHER INFORMATION REGARDING M/S. RANEAL ADVANCED SYSTEMS PRIVATE LIMITED ("COMPANY") & ITS PROPOSED FACILITY FOR ELECTRONICS MANUFACTURING SERVICES ("PROJECT") AND ITS AFFILIATES WHICH IS DISCLOSED TO SUCH RECIPIENT, CONFIDENTIAL.
- WE UNDERSTAND THAT THE PROJECT REPORT HAS BEEN PREPARED BY THE MANAGEMENT OF COMPANY ("MANAGEMENT"). ACCORDINGLY THE SELLING PRICE, PROCUREMENT COSTS AND YIELDS ASSUMED IN THE STUDY HAS BEEN CONSIDERED AS PROVIDED TO US BY THE MANAGEMENT. THIS INFORMATION HAS BEEN ASSUMED TO BE CORRECT WITHOUT MATERIAL OMISSIONS.
- THE PURPOSE OF THIS REPORT IS TO PROVIDE DETAILED INFORMATION TO ASSIST THE RECIPIENT IN OBTAINING AN UNDERSTANDING OF THE SUBJECT BUSINESS. IT HAS BEEN PREPARED BASED ON THE INFORMATION AND THE DOCUMENTS FURNISHED BY COMPANY AND OTHER PUBLICLY AVAILABLE INFORMATION, WHICH HAS BEEN BROADLY VERIFIED BY RBSA VALUATION ADVISORS LLP ("RBSA" OR THE "ADVISOR"). THIS REPORT CONSTITUTES AN OPINION EXPRESSED BY RBSA AND RBSA SHALL NOT BE HELD LIABLE FOR ANY COST, EXPENSES, LOSS, ETC. INCURRED BY THE INVESTORS BASED ON THIS REPORT. THIS REPORT HAS BEEN PREPARED WITHOUT ANY REGARD TO SPECIFIC OBJECTIVES, SUITABILITY, FINANCIAL SITUATIONS AND NEEDS OF ANY PARTICULAR PERSON AND DOES NOT CONSTITUTE ANY RECOMMENDATION, AND SHOULD NOT BE CONSTRUED AS AN OFFER TO SELL OR THE SOLICITATION OF AN OFFER TO BUY, PURCHASE OR SUBSCRIBE TO ANY SECURITIES, IF ANY, MENTIONED THEREIN, AND NEITHER THIS DOCUMENT NOR ANYTHING CONTAINED HEREIN SHALL FORM THE BASIS OF OR BE RELIED UPON IN CONNECTION WITH ANY CONTRACT OR COMMITMENT WHATSOEVER.
- THIS DOCUMENT DOES NOT SOLICIT ANY ACTION BASED ON THE MATERIAL CONTAINED HEREIN. NOTHING IN THESE MATERIALS IS INTENDED BY RBSA TO BE CONSTRUED AS LEGAL, ACCOUNTING OR TAX ADVICE. THOUGH UTMOST CARE HAS BEEN TAKEN TO ENSURE ITS ACCURACY, NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED IS MADE THAT IT IS ACCURATE, AUTHENTIC, FAIR, CORRECT OR COMPLETE. RBSA HAS REVIEWED THE DOCUMENT AND, IN SO FAR AS IT INCLUDES CURRENT OR HISTORICAL INFORMATION, IT IS BELIEVED TO BE RELIABLE, ALTHOUGH ITS ACCURACY, AUTHENTICITY, CORRECTNESS, FAIRNESS AND COMPLETENESS CANNOT BE GUARANTEED. THIS DOCUMENT HAS NOT BEEN APPROVED AND WILL OR MAY NOT BE REVIEWED OR APPROVED BY ANY STATUTORY OR REGULATORY AUTHORITY IN INDIA OR BY ANY STOCK EXCHANGE IN INDIA. THIS DOCUMENT MAY NOT BE ALL INCLUSIVE AND MAY NOT CONTAIN ALL OF THE INFORMATION THAT THE RECIPIENT MAY CONSIDER MATERIAL.



# 1. DISCLAIMER



- THIS DOCUMENT AND INFORMATION CONTAINED HEREIN OR ANY PART OF IT DOES NOT CONSTITUTE OR PURPORT TO CONSTITUTE INVESTMENT ADVICE IN PUBLICLY ACCESSIBLE MEDIA AND SHOULD NOT BE PRINTED, REPRODUCED, TRANSMITTED, SOLD, DISTRIBUTED OR PUBLISHED BY THE RECIPIENT WITHOUT THE PRIOR WRITTEN APPROVAL FROM RBSA.
- THE DISTRIBUTION OF THIS DOCUMENT IN OTHER JURISDICTIONS MAY BE RESTRICTED BY LAW, AND PERSONS INTO WHOSE POSSESSION THIS DOCUMENT COMES SHOULD INFORM THEMSELVES ABOUT, AND OBSERVE, ANY SUCH RESTRICTIONS. RBSA, AND ITS AFFILIATES, NOR ITS DIRECTORS, EMPLOYEES, AGENTS OR REPRESENTATIVES SHALL BE LIABLE FOR ANY DAMAGES WHETHER DIRECT OR INDIRECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL INCLUDING LOST REVENUE OR LOST PROFITS THAT MAY ARISE FROM OR IN CONNECTION WITH THE USE OF THIS DOCUMENT.
- OUR WORK DID NOT CONSTITUTE AN AUDIT OF THE FINANCIAL STATEMENTS AND ACCORDINGLY, WE DO NOT EXPRESS ANY OPINION ON THE TRUTH AND FAIRNESS OF THE FINANCIAL POSITION AS INDICATED IN THIS REPORT. INTERNALLY PREPARED STATEMENTS INCLUDING MANAGEMENT ACCOUNTS, PROJECTIONS AND OTHER PERTINENT INFORMATION WERE PROVIDED BY THE MANAGEMENT AND HAVE BEEN ACCEPTED WITHOUT FURTHER VERIFICATION. IF THERE WERE ANY OMISSIONS, INACCURACIES OR MISREPRESENTATIONS OF THE INFORMATION PROVIDED BY THE MANAGEMENT, IT MAY HAVE A MATERIAL EFFECT ON OUR FINDINGS.
- RBSA HAS CARRIED OUT A REVIEW OF THE FINANCIAL INFORMATION AND UNDERLYING ASSUMPTIONS PROVIDED BY THE MANAGEMENT FOR THE TEV STUDY OF THE PROJECT. THIS INFORMATION HAS BEEN RELIED UPON BY RBSA FOR CARRYING OUT TEV STUDY OF THE PROJECT.
- THE REALISATION OF THE PROJECTIONS BASED ON WHICH THE REPORT HAS BEEN PREPARED, IS DEPENDENT ON THE CONTINUING VALIDITY OF THE ASSUMPTIONS ON WHICH THEY ARE BASED. THE REPORT CANNOT BE DIRECTED TO PROVIDE AN ASSURANCE ABOUT THE ACHIEVABILITY OF THESE FINANCIAL PROJECTIONS. SINCE EVENTS AND CIRCUMSTANCES FREQUENTLY DO NOT OCCUR AS EXPECTED, THERE WILL USUALLY BE DIFFERENCE BETWEEN PREDICTED AND ACTUAL RESULTS AND THOSE DIFFERENCES MAY BE MATERIAL. ACCORDINGLY WE EXPRESS NO OPINION AS TO HOW CLOSE THE ACTUAL RESULTS ACHIEVED WILL CORRESPOND TO THOSE PREDICTED AND WE TAKE NO RESPONSIBILITY FOR THE ACHIEVEMENT OF THE PREDICTED RESULTS. WE EXPRESS NO OPINION AS TO HOW CLOSELY THE ACTUAL RESULTS WILL CORRESPOND TO THE PROJECTIONS.



# 1. DISCLAIMER



- OUR RESULTS DEPEND ON PROJECTIONS; THE UNDERLYING ASSUMPTIONS OF THE PROJECTIONS ARE BASED ON THE MANAGEMENT'S ESTIMATE, WHICH ARE IN TURN DISCUSSED AND ANALYZED BY RBSA FOR THEIR OVERALL REASONABLENESS.
- IT IS INAPPROPRIATE TO USE THIS REPORT FOR ANY PURPOSE OTHER THAN THE PURPOSE MENTIONED ABOVE. WE ARE NOT RESPONSIBLE FOR THE UNAUTHORIZED USE OF THIS REPORT. WE SHALL NOT ASSUME ANY RESPONSIBILITY TO ANY THIRD PARTY TO WHOM THE REPORT IS DISCLOSED OR OTHERWISE MADE AVAILABLE. UNLESS REQUIRED BY LAW, IT SHALL NOT BE PROVIDED TO ANY THIRD PARTY WITHOUT OUR PRIOR WRITTEN CONSENT. IN NO EVENT, REGARDLESS OF WHETHER CONSENT HAS BEEN PROVIDED, SHALL WE ASSUME ANY RESPONSIBILITY TO ANY THIRD PARTY TO WHOM THE REPORT IS DISCLOSED OR OTHERWISE MADE AVAILABLE.
- WE HAVE PROVIDED A DRAFT COPY OF THE REPORT TO THE MANAGEMENT, WHO HAVE CONFIRMED TO THE BEST OF THEIR KNOWLEDGE AND BELIEF THAT THE FACTUAL INFORMATION CONTAINED WITHIN THIS DOCUMENT IS CORRECT AND THAT THERE ARE NO MATERIAL OMISSIONS.
- THIS DOCUMENT MAY CONTAIN CONFIDENTIAL, PROPRIETARY AND/ OR LEGALLY PRIVILEGED INFORMATION AND IT MUST BE KEPT CONFIDENTIAL BY THE RECIPIENT. FURTHER, NO REPRESENTATION OR WARRANTY, EXPRESSED OR IMPLIED, IS MADE OR GIVEN BY OR ON BEHALF OF RBSA OR ITS AFFILIATES, NOR ANY PERSON WHO CONTROLS IT OR ANY DIRECTOR, OFFICER, EMPLOYEE, ADVISOR OR AGENT OF IT, OR AFFILIATE OF ANY SUCH PERSON OR SUCH PERSONS DO NOT HAVE AUTHORITY TO MAKE SUCH REPRESENTATION OR WARRANTY AS TO THE ACCURACY, AUTHENTICITY, COMPLETENESS OR FAIRNESS OF THE INFORMATION OR OPINIONS CONTAINED IN THIS PRESENTATION AND RBSA OR ITS AFFILIATES OR SUCH PERSONS DO NOT ACCEPT ANY RESPONSIBILITY OR LIABILITY FOR ANY SUCH INFORMATION OR OPINIONS AND THEREFORE, ANY LIABILITY OR RESPONSIBILITY IS EXPRESSLY DISCLAIMED.
- THE DELIVERY OF THIS REPORT AT ANY TIME DOES NOT IMPLY THAT THE INFORMATION IN IT IS CORRECT AS OF ANY TIME AFTER THE DATE SET OUT ON THE COVER PAGE HEREOF, OR THAT THERE HAS BEEN NO CHANGE IN THE OPERATION, FINANCIAL CONDITION, PROSPECTUS, CREDITWORTHINESS, STATUS OR AFFAIRS OF "CTPL" OR ANYONE ELSE SINCE THAT DATE.



# 1. DISCLAIMER



- THE INFORMATION CONTAINED HEREIN CONCERNING THE GOVERNMENT OF INDIA OR INFORMATION RELATED TO MARKET, INDUSTRY AND ECONOMIC SCENARIO, IF ANY, HAS BEEN EXTRACTED FROM PUBLICLY AVAILABLE DOCUMENTS AND HAS NOT BEEN INDEPENDENTLY VERIFIED.
- ALL PROJECTIONS AND FORECASTS IN THIS REPORT ARE BASED ON ASSUMPTIONS CONSIDERED TO BE REASONABLE BUT THE ACTUAL OUTCOME MAY BE MATERIALLY AFFECTED BY CHANGES IN ECONOMIC AND OTHER CIRCUMSTANCES, WHICH CANNOT BE FORESEEN. THE RELIANCE THAT THE RECIPIENT OF THIS REPORT PLACES UPON THE PROJECTIONS AND FORECASTS IS A MATTER FOR ITS OWN COMMERCIAL JUDGMENT. PAST PERFORMANCE IS NOT A GUIDE FOR FUTURE PERFORMANCE. THE INFORMATION IN THIS REPORT IS SUBJECT TO AMENDMENT IF ANY.
- THIS REPORT IS DIVIDED INTO CHAPTERS & SUB-SECTIONS ONLY FOR THE PURPOSE OF READING CONVENIENCE. ANY PARTIAL READING OF THIS REPORT MAY LEAD TO INFERENCES, WHICH MAY BE AT DIVERGENCE WITH THE CONCLUSIONS AND OPINIONS BASED ON THE ENTIRETY OF THIS REPORT. FURTHER, BY ACCEPTING A COPY OF THIS REPORT, THE RECIPIENT ACCEPTS THE TERMS OF THIS NOTICE, WHICH FORMS AN INTEGRAL PART OF THIS REPORT. IT IS CLARIFIED THAT RBSA HAS NO ROLE OR OBLIGATION TO MONITOR THE END USE/ DEPLOYMENT OF FUNDS.
- THIS REPORT IS ISSUED BY RBSA VALUATION ADVISORS LLP WITHOUT ANY LIABILITY/ UNDERTAKING/ COMMITMENT ON THE PART OF ITSELF OR ANY OTHER COMPANY IN THE RBSA GROUP, EXCEPT WHERE IT IS EXPLICITLY STATED. FURTHER, IN CASE OF ANY COMMITMENT ON BEHALF OF RBSA OR ANY OTHER COMPANY IN THE RBSA GROUP, SUCH COMMITMENT IS VALID ONLY WHEN SEPARATELY CONFIRMED BY THAT COMPANY.



# EXECUTIVE SUMMARY

2



## 2. EXECUTIVE SUMMARY



Date: March 23, 2022

Report Reference No.: RVA2122BTFAREP057

DCX Systems Limited  
Aerospace SEZ Sector, Plot Nos 29,30 and 107,  
Hitech, Defence and Aerospace Park,  
Devanahalli Taluk, Bengaluru Rural,  
Karnataka – 562 110

**k/a: Mr. Sankara Krishnan, Director**

Dear Sir,

In accordance with our offer letter (RBSA/BLR/OFFER/21-22/0303/AM01) dated March 3, 2022, we enclose our report for carrying out Techno Economic Viability (“TEV”) study of proposed facility for Electronics Manufacturing Services (PCB Assembly) in SEZ Aerospace Park, Devanahalli, Bengaluru (“Project”) of M/s RaNeal Advanced Systems Private Limited (“Company”/ “RASPL”).

RASPL is 100% subsidiary of DCX Systems Limited (“DCX” or the “Client”), formerly known as DCX Cable Assemblies Private Limited (“DCX”). DCX was setup in the year 2011 and is in to manufacturing of cable & wire harness, electronics and electro-mechanical assemblies, microwave modules and sub-system integration.

The information used by RBSA Valuation Advisors LLP (“RBSA”) in preparing this report has been obtained from relevant documents provided by the Company and other sources publicly available.

The findings, observations, limitations, inferences, opinions and conclusions etc. of this exercise is being presented hereunder in the form of the report.



## 2. EXECUTIVE SUMMARY



As agreed, we have performed our TEV exercise based on data provided and other information publicly available related to the Project. Our results are dependent on financial projections; the underlying assumptions provided by the Company, which has been analyzed by RBSA for assessing their reasonableness. As events and circumstances do not occur as expected, there will be differences between predicted and actual results and those differences may be material. Accordingly, we express no opinion as to how closely the actual results achieved will correspond to those predicted and we take no responsibility for the achievement of predicted results.

We understand that the Project report (PR) has been prepared by the management of Company ("Management"). Accordingly, the selling price, procurement costs and yields assumed in the study has been considered as provided to us by the Management without any diligence/ checks. This information has been assumed to be correct without material omissions.

As per our analysis the project can be considered and technically and financially viable.

This Report forms an integral whole and cannot be split in parts.

We thank the management of the Company for the cooperation extended to us during the course of this engagement.



# SCOPE & LIMITATIONS

3

### 3. SCOPE & LIMITATIONS

- RBSA has been appointed as an independent advisor by Company to carry out TEV study of proposed facility to be set up for Electronics Manufacturing Services (PCB Assembly) in SEZ Aerospace Park, Devanahalli, Bengaluru.
- This report has been prepared in accordance with the purpose as brought out in our engagement letter dated March 3, 2022 and should not be relied upon for any other purpose.
- For the purpose of this engagement and report, we have made no investigation of, and assume no responsibility for the title to the assets of or liabilities against Company.
- Our exercise is primarily from a business perspective and does not take into account various legal and other corporate structures beyond the limited information provided to us by the Management. The study is not intended to represent the viability at any time other than the date that is specifically stated in the Report.
- We understand that the Project Report has been prepared by the Management. Accordingly, the selling price, procurement costs and yields assumed in the study has been considered as provided to us by the Management. This information has been assumed to be correct without material omissions.
- The realization of the projections based on which the study has been prepared is dependent on the continuing validity of the assumptions on which they are based. The study cannot be directed to provide an assurance about the achievability of these financial projections. Since these projections relate to the future, actual results may be different from the forecast and the differences could be material. We express no opinion as to how closely the actual results will correspond to the projections.
- For our analysis, we have relied on primary and secondary sources of data, whether or not made available by the Company. We have not independently verified the accuracy or timeliness of the same.



### 3. SCOPE & LIMITATIONS



- As per data provided by Company, 1.0 acre of land (Plot No. 177 & 178) in SEZ Aerospace Sector, Hi-Tech Defence & Aerospace Park, KIADB Industrial Area, Bengaluru has been identified by Company for setting up of the Project. As per our discussion with Client's management ("Management"), DCX is proposing to come out with an IPO and is in the process of filing the DRHP. The consideration for purchase of land, construction, machineries of RASPL would be met out of the proceeds from IPO.
- We have requested approved building plans and other approvals and NOC's obtained (if any) for the Project which are required for commencement of Project. As informed by the Company, process of obtaining approvals and NOC's will be initiated after land allotment from KIADB. We have assume that, all the necessary approvals & NOC's will be obtained in due course of time without any delay or changes.
- In performing the analysis set forth herein, we have made certain assumptions with respect to industry performance and general business and economic conditions, many of which are outside the control of the Company and subject to change.
- Any matters related to legal title and ownership are outside the purview and scope of this TEV exercise. Further, no legal advice regarding the title and ownership of all the tangible fixed assets has been obtained while conducting this TEV exercise.
- Any environmental due diligence or study is outside the scope of this engagement; therefore, no such due diligence or study has been carried out by RBSA. We have assumed that the subject asset complies with all environmental laws and regulations, and that there are no substances, environmental or pollution related encumbrances/ issues which may adversely affect its value, utility or marketability.
- This study report forms an integral whole and cannot be split in parts. The outcome of the study can only lead to proper conclusions if the report as a whole is taken into account.



# SOURCES OF INFORMATION

# 4

# 4. SOURCES OF INFORMATION

This report is based on following sources of information/ documents as provided to us by Company and other publicly available information,

- Project report provided by Company
- Estimated Project cost
- Draft building plan of proposed structures
- Data pertaining to building specifications
- Project implementation schedule
- Bill of Quantity (BOQ)
- Copies of Contract Agreements
- List of plant & machinery/ utility equipment proposed to be installed at the unit
- List of major raw material suppliers
- Process flow chart and process description provided by the Company
- Quotations for proposed machinery provided by the Company
- Projections for the period FY 23 to FY 28 as provided by Company
- Effective Tax rate applicable to manufacturing Company in SEZ in accordance with Income Tax Act, 1961.
- Discussion with suppliers of machineries
- Discussions with the following officials of Company:
  - Mr. Pramod B – DGM, Operations





# PROMOTER PROFILE

5



# 5. PROMOTER PROFILE

Name and Image	Profile
 <p data-bbox="336 638 627 718"><b>Mr. H. S. Raghavendra Rao</b></p>	<p data-bbox="649 319 1478 351">Mr. H. S. Raghavendra Rao is the founder and promoter of Company.</p> <ul data-bbox="649 367 1926 750" style="list-style-type: none"> <li>▪ He has nearly 30 years of experience, both in domestic &amp; international markets in aerospace, space, defense and civil aviation sector in the electronic manufacturing industry.</li> <li>▪ Over his carrier span, he was involved in finance, sales &amp; marketing, operations, supply chain management and business development in multiple organizations.</li> <li>▪ He has contributed significantly for the growth of DCX-India and potential leader in EMS market.</li> <li>▪ He has received various national and international awards for his business excellence, latest been ET Pioneer, 2021 achievers award and the Business Leadership Award at the International Achievers Awards held in Dubai in 2021 for excellence in defence electronics exports.</li> </ul>
 <p data-bbox="336 1133 627 1165"><b>Mr. Neal Castleman</b></p>	<p data-bbox="649 798 1411 829">Mr. Neal Castleman is the founder and promoter of Company.</p> <ul data-bbox="649 845 1702 933" style="list-style-type: none"> <li>▪ He is a graduate in Chemical Engineering from the University of Southern California.</li> <li>▪ Has over 40 years of experience in defence and aerospace industry.</li> </ul>

Source: Company



# INDUSTRY SCENARIO

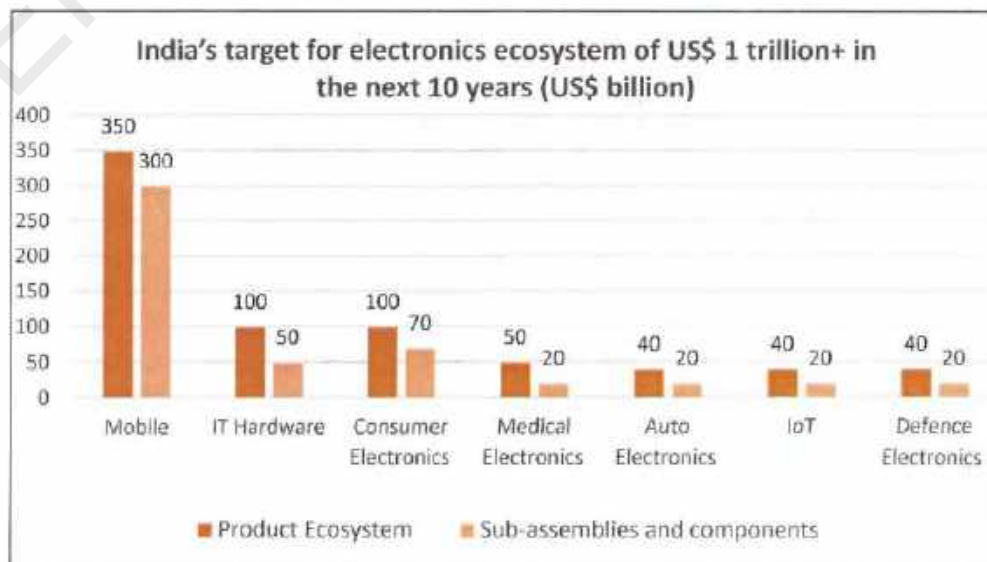
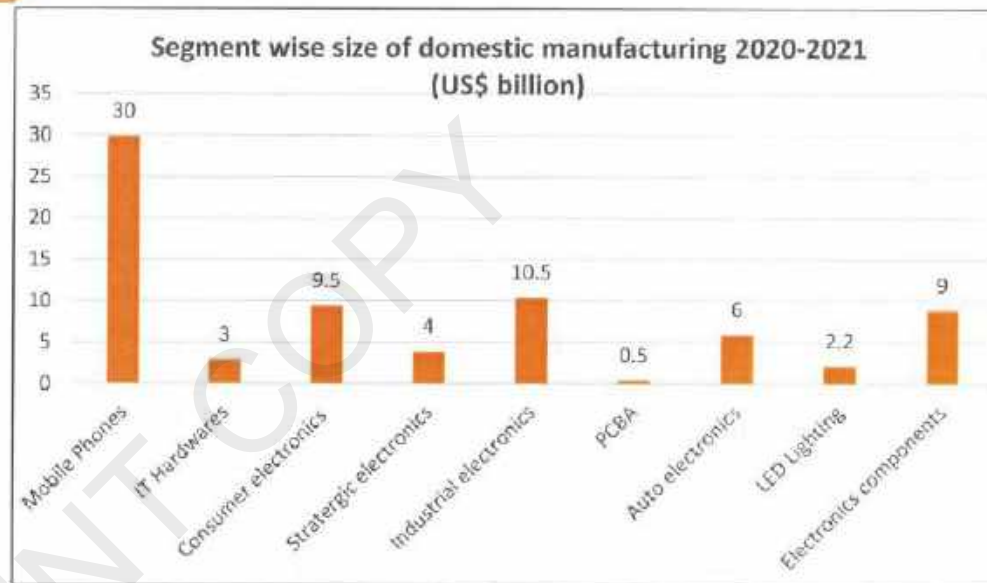
6

# 6. INDUSTRY SCENARIO

## Electronic Manufacturing Industry:

The electronics industry is one of the largest and fastest growing industries in the world. Electronic products continue to impact and shape our lifestyle prominently in today's digital era. With the world being more connected than ever and the digital push induced by COVID-19 pandemic; the demand for electronic devices is expected to grow steadily and continue to be a major economic driver across the globe. The key segments of Electronic Industry are semiconductors supply and manufacturing services, industrial equipment, networking and telecommunication equipment, computer and office products, medical devices and consumer electronics and home appliances.

India is expected to have a digital economy of \$1 trillion by 2025. Electronics Manufacturing Industry has committed to reach \$300 billion revenue by 2025-26.



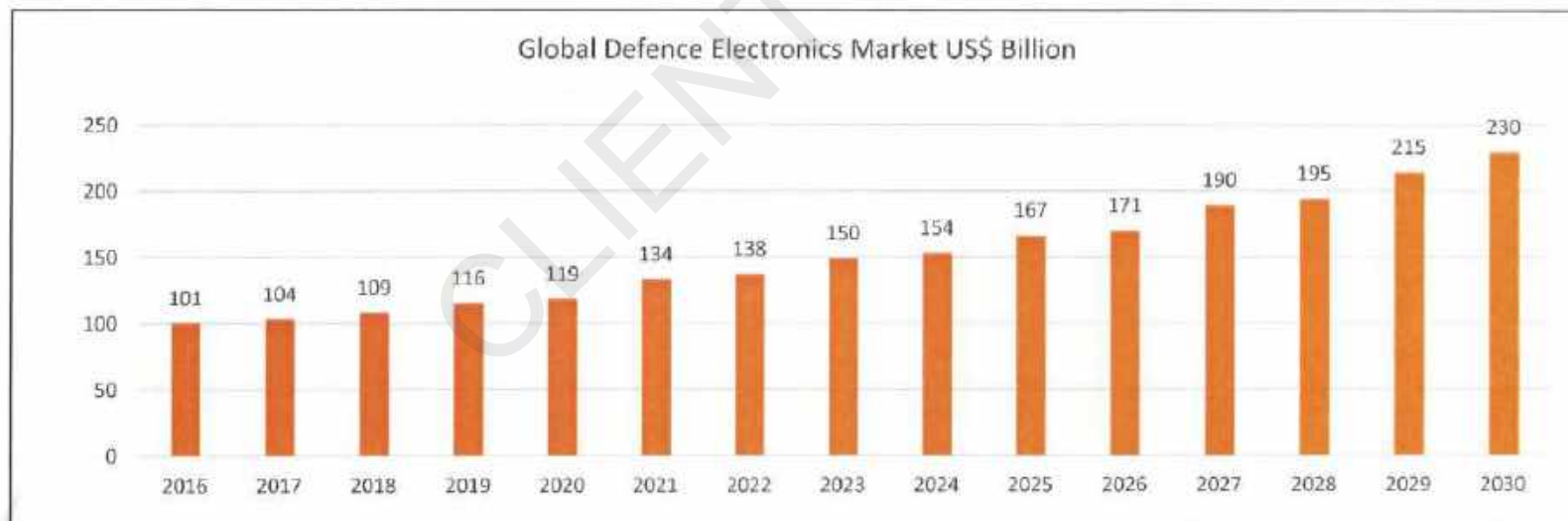
Source: ICEA Volume 2



# 6. INDUSTRY SCENARIO

## Global Defence Electronics Market:

- Every country is upgrading their military forces, for that huge investment is going towards the upgradation of military equipment with evolving technologies. Globally defence electronics procurement is going to become a core component for defence procurement as the amount of electronics that are fitted onto platforms continues to grow.
- Over the last decade the defence electronics component has consumed a larger share. Aircrafts have seen a large adoption of new optronics systems, communication systems and battle management systems that exploit the new multi domain concept of operations. Naval platforms have been increasingly adopting new electronic warfare, radar, command and control systems as platforms have been required to undertake multi-role operations.
- As such the global defence electronics market was worth ~ \$ 550 billion from 2016-2020 growing at a CAGR of 4.1% during the period, and is expected to be worth ~\$ 1.74 trillion from 2021-2030 with a CAGR of 6.2%.



Note: 2016-2020 is the actual market size. 2021-2030 figures are estimated market size.

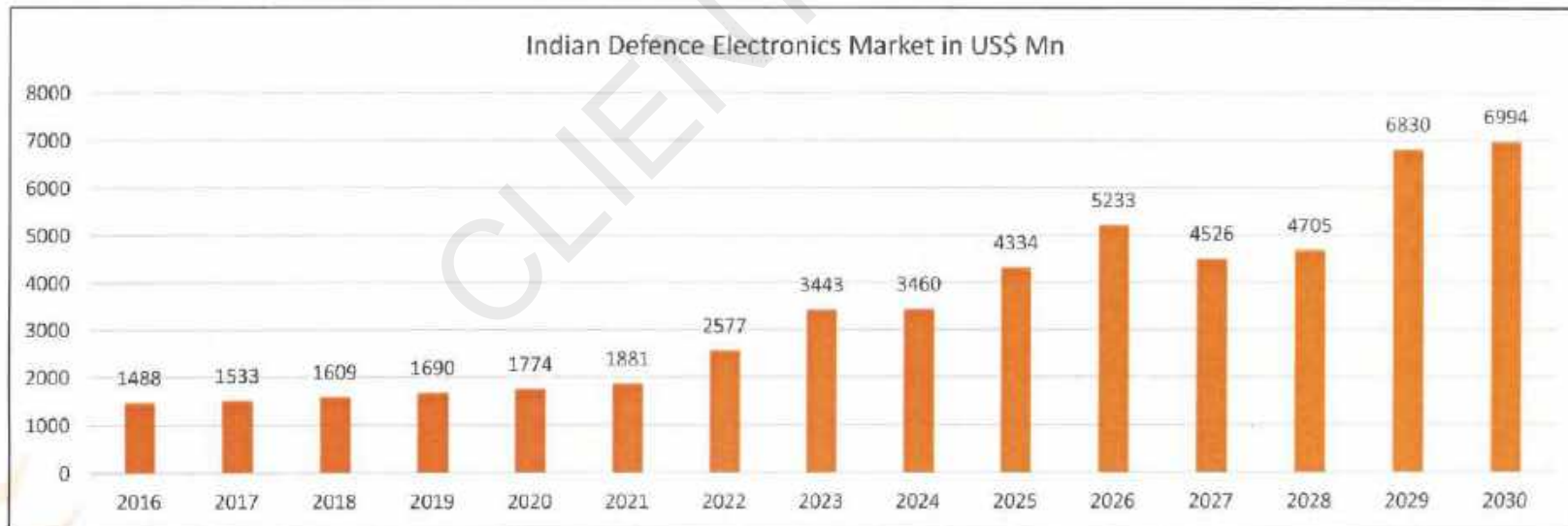
Source: Defence and Space market report by Frost & Sullivan



# 6. INDUSTRY SCENARIO

## Indian Defence Electronics Market:

- The Indian Defence Electronics segment will witness large scale indigenization efforts over the next decade leading to improved manufacturing and quality standards. This will further increase the presence of Indian components in global supply chains which are already being used in Israeli UAS and European combat aircrafts.
- At present Defence Electronics take only 25-35% of total cost of Indian armed forces, and at present over 60% of the electronic components used are supplied by foreign OEM's. Future procurement will see a large portion of defence electronics sourced locally.
- The Defence Electronics market was cumulatively worth ~ \$ 8.09 billion from 2016-2020 and grew at a CAGR of 4.5% during the period. The market was evaluated to be worth approximately ~ \$ 1.88 billion in 2021 and is expected to grow to ~ \$ 6.99 billion in 2030 with a cumulative market opportunity for this segment in the order of ~ \$ 43.98 billion and a CAGR of 15.71% during the period.



Note: 2016-2020 is the actual market size. 2021 -2030 figures are estimated market size.

Source: Defence and Space market report by Frost & Sullivan



## 6. INDUSTRY SCENARIO

### Indian Government Initiatives:

- The Ministry of Electronics and Information Technology (MeitY) outlay for Digital India programme in the Budget for 2022-23 jumped 67.13 per cent. Around INR 10,676 crores has been allocated this year for the programme, up from INR 6,388 crores last year. This is a significant increase given that the total budget allocation for MeitY stood at ₹14,300 crore for 2022-23 against ₹9,581.25 crore in 2021-22.
- The growth potential and strategic importance of the electronics industry has been widely acknowledged by the Government of India in the National Policy for Electronics, 2019 ('NPE'). NPE was launched with a vision to position India as a global hub for Electronics System Design and Manufacturing (ESDM) by creating an enabling environment for the industry to compete globally amongst others. Objectives of NPE are as follows:
  - Promotes the domestic manufacturers.
  - Improve ease-of-doing-business for the ESDM Industry.
  - Encourage the R&D and Innovation cells in all sub sectors of electronics.
  - Supporting a comprehensive start-up ecosystem.
  - Providing special packages of incentives for highly intensive projects.
  - Facilitate cost effective loans for setting up or for expansion of EMS units.
  - Providing support to skill development of manpower in the ESDM sector.
  - Promoting research, innovation and to support for green process and e-waste management.



# PROJECT DESCRIPTION

7

# 7. PROJECT DESCRIPTION

## Project Overview:

RaNeal Advanced Systems Pvt. Ltd., a wholly owned subsidiary of DCX Systems Ltd., is setting up Electronics Manufacturing (PCB Assembly) facility as part of the vertical integration to cater to the in-house and Global EMS/ Offset requirements.

It is proposed to locate at SEZ Aerospace Park, Devanahalli, Bengaluru. This manufacturing facility will consist of approx. 45,000 sq ft factory which will have facilities for design, development, manufacturing, qualification and life cycle support of high reliability Electronic & Electro-mechanical Systems used in Aerospace & Defence, Medical Electronics and Industrial Electronics application.

The unit is proposed to be developed on land admeasuring 1.00 Acre & located at Plot No. 177, 178, SEZ Aerospace Park, Devanahalli, Bengaluru, Karnataka – 562 110.

The geographical coordinates of Project are 13°10'42.86"N & 77°44'4.98"E.

As per Project report and data provided by Company, the summary of time line of the Project is as follows:

Particulars	Milestone
Project Commencement	September 2022
Proposed Completion	June 2023
Commencement of Operations	June 2023

As per Draft plan provided by the Company, structures comprises of Production Building, DG, Electric Room & Utilities, Electrical Transformer & DI-Pole, Security Room (2Nos) etc.,

Other Facilities/Amenities comprises of internal Road, Pathway, Landscaping Area, Compound Wall, Generator / Transformer Yard, Drains, STP, Over Head Tank, Raw water & Firewater Sumps, Rainwater harvesting tanks, Parking, Children play area and Creche Room etc.,

As per BOQ provided by the Company, the proposed production building comprises ground plus one upper floor RCC frame structure with RCC roofing with total 24.0 Ft. clear height. Provision made for one passenger lift. It is proposed with granite flooring for lift lobby and reception area, laminated flush door.





# 7. PROJECT DESCRIPTION

## Project Location Map

### Karnataka

Karnataka is a state in South West India. It was created on 1 November 1956, with the passage of the States Reorganisation Act. Originally known as the State of Mysore, it was renamed Karnataka in 1973. The capital and largest city is Bangalore. Karnataka is bordered by the Arabian Sea and the Laccadive Sea to the west, Goa to the north west, Maharashtra to the north, Telangana to the North east, Andhra Pradesh to the east, Tamil Nadu to the south east, and Kerala to the south west.



The state covers an area of 1,91,976 square kilometres. It is the Seventh largest Indian state by area. With 6,11,30,704 inhabitants at the 2011 census, Karnataka is the eighth largest state by population, comprising 30 districts. Kannada is the most widely spoken and official language of the state.

### Bengaluru City

Bengaluru, is the third largest city in India and is the centre of India's fifth-largest metropolitan area. Located in southern India on the Deccan Plateau, it is the capital of the southern Indian state of Karnataka.

Source: Wikipedia & Google Maps



# 7. PROJECT DESCRIPTION

## Project Location Map

Bengaluru is known as the "Silicon Valley of India" because of its role as the nation's leading information technology (IT) exporter. Located at a height of over 3,000 feet (914.4 m) above sea level, Bengaluru is known for its pleasant climate throughout the year. The city is amongst the top ten preferred entrepreneurial locations in the world. Bengaluru is home to many well-recognized educational and research institutions in India, such as Indian Institute of Science (IISc), Indian Institute of Management (Bangalore) (IIMB), and National Institute of Mental Health and Neurosciences (NIMHANS). Bengaluru is a major economic and cultural hub and the second-fastest growing major metropolis in India. The city also houses the Kannada film industry. As a growing metropolitan city in a developing country, Bengaluru confronts substantial pollution and other logistical and socio-economic problems.

### Economy

The Economy of Bengaluru is an important part of the economy of India as a whole and contributes over 87% to the Economy of the State of Karnataka, accounting for 98% of the Software Exports of the State.

The establishment and success of high technology firms in Bengaluru has led to the growth of Information Technology (IT) in India. IT firms in Bengaluru employ about 35% of India's pool of 2.5 Mn IT professionals and account for the highest IT-related exports in the country.

Bengaluru also called the aviation monopoly capital of India. It accounts India's more than 65% aerospace business. World Aerospace giants such as Boeing, Airbus, Goodrich, Dynamics, Honeywell, GE Aviation, UTL others have their R&D and Engineering centers.

Bengaluru accounts for 70% of all rose exports from India and leads in floriculture business. Karuturi Global Limited located in Bengaluru is world's largest grower of cut roses.

Some of the other major companies headquartered in Bengaluru are: Canara Bank, United Breweries Group, GMR Group, and Idiom Design and Consulting.

*Source: Wikipedia*



# 7. PROJECT DESCRIPTION

## Project Location Map

### Bengaluru Rural District

It is one of the 30 districts in Karnataka, India. It was formed in 1986, when Bengaluru was divided into Bengaluru (Rural) and Bengaluru (Urban). Presently in Bengaluru Rural district, there are 2 divisions, 4 Talukas, 35 Hobli's (cluster of villages), 1,713 inhabited and 177 uninhabited villages, 9 towns, and 229 Gram Panchayats.

Proximity to the city of Bengaluru has its own impact on the district, with a considerable daily commuting population. The rural people are mostly agriculturists, although with the beginning of SEZs in the area, service and IT industries are booming. Devanahalli is set to be the site of Devanahalli Business Park, near the Bengaluru International Airport.



Source: Google maps

### Aerospace SEZ, IT and Hardware Park, Devanahalli

Aerospace SEZ, IT and Hardware Park will occupy 3,000 acres and house Boeing, Airbus and many more. Aerospace Park and SEZ, IT and Hardware Park are being developed close to southern boundary of Kempegowda International Airport. The large and mid-sized companies have signed up for operations in Aerospace Park. Boeing, Airbus and Bombardier have agreed to setup facility in Aerospace Park. StarragHeckert, Shell and Wipro have already initiated operations in Aerospace Park. Tata Elaxi and many other hardware companies will occupy space in Hardware Park. IFCI is also building a 50 acre Global Financial District with cost of INR 1,000 crores in IT Park. TCS is planning a 100 acre campus in the same IT Park.

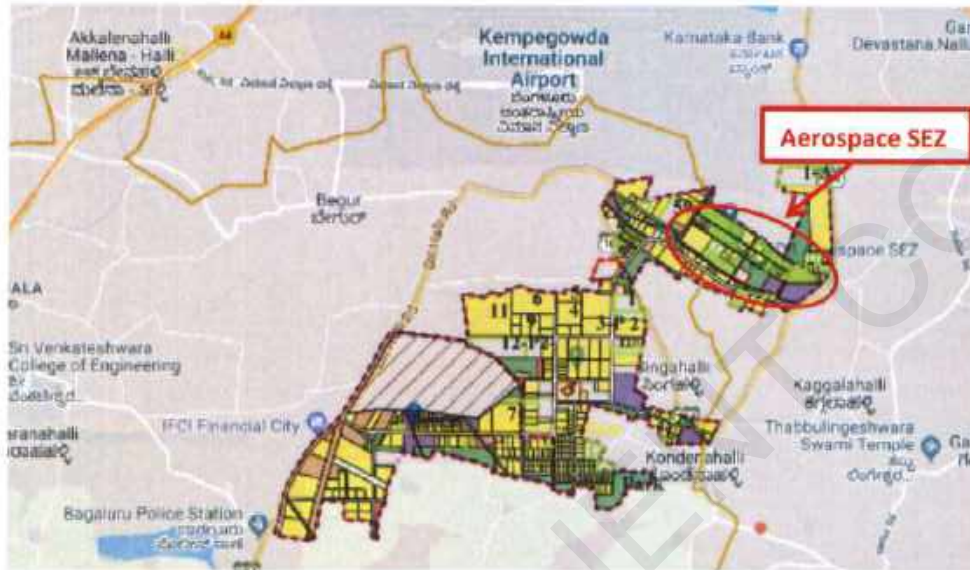
Source: Wikipedia & Google Maps



# 7. PROJECT DESCRIPTION

## Project Location Map

The subject property land situated at Aerospace SEZ. This SEZ was established for manufacturing precision engineering product for Aerospace & Defence (R&D).



Plot No. 177 & 178



Source: Google maps & KIADB



# 7. PROJECT DESCRIPTION

Industrial establishments in & around Project location:



*The satellite images shown in the report along with boundary area of the property under valuation are approximate and it does not indicate the actual area of the property*  
Source: Google maps



# 7. PROJECT DESCRIPTION

## Project Schedule:

As per data provided by Company, the implementation period of proposed Project shall commence in September 2022 and is likely to end by June 2023.

Proposed Project schedule provided by Company has been shown below,

Sr. No.	Description	Start Date	End Date	Status as on 8 <sup>th</sup> March, 2022
1	Purchase of Land	01-09-2022	30-09-2022	Yet to Start
2	Clearance from Statutory Bodies	01-09-2022	31-10-2022	Yet to Start
3	Building Construction	01-10-2022	31-03-2023	Yet to Start
4	Finalization of Machineries	01-09-2022	31-10-2022	Yet to Start
5	Electrical & HVAC Works	01-01-2023	31-05-2023	Yet to Start
6	Building Interiors & Façade	01-02-2023	31-05-2023	Yet to Start
7	Ordering, Delivering & Commissioning of Machieries	01-11-2022	31-05-2023	Yet to Start
8	Certifications & Approvals	01-05-2023	30-06-2023	Yet to Start
9	Commencement of Operations	01-06-2023	--	Yet to Start

Source: Company

Note: As per Project report provided by Company, total duration for project work is 10 months and same has been considered.

Further as per the above data, the Company is planning to commence commercial production as on 1<sup>st</sup> June, 2023.

As per our discussion with Company officials, approvals like Karnataka Shop & Establishment, Professional Tax, Employees Provident Fund, Employees State Insurance and (Legal Entity Identifier will be obtained post commencement of operations.



# 7. PROJECT DESCRIPTION

## Land:

As per data provided by Company, 1.0 acre of land (Plot No. 177 & 178) in SEZ Aerospace Sector, Hi-Tech Defence & Aerospace Park, KIADB Industrial Area, Bengaluru has been identified.

We have inspected the identified site on 8<sup>th</sup> March, 2022. It was observed that, the plot was abutting to KIADB internal road on two sides, not bounded by compound, had unlevelled topography and unwanted plantations.

The land parcel is contiguous in nature and abutting by 18.0 meter wide internal road on western side & 16.0 meter wide internal road northern side which further connects to KIADB Aerospace SEZ Road.



Demarcation of subject property as per physical inspection is as follows:

<b>North</b>	16 M wide Road	<b>East</b>	Plot No. 179
<b>South</b>	TATA Advanced Systems	<b>West</b>	18 M wide Road

## Building:

### Civil Structures Details:

As data/draft building plan provided by Company, built-up area details of main industrial structure is as follows:

Built-up Area	SFT
Ground Floor	21573.20
First Floor	20499.50
<b>Total Built-up Area</b>	<b>42072.70</b>



# 7. PROJECT DESCRIPTION

## Construction Cost

Sr. No	Description	Supplier / Make	Construction Cost (INR in Mn)
1	Building Structural Design & Consultancy	STUDIO3C	1.6
2	Consultancy Services for PHE, FPS, ELECTRICAL & HVAC Works	BIGTREE DESIGN TEAM	0.8
3	Construction of Industrial Building - Civil finishes with PEB structure	Planotech Consultant & Contractors	89.2
4	External & Internal Electrical works - HT Panel, HT Cables & Termination, LT Panel, Distribution Panel, Earthing, External & Internal wiring	Planotech Consultant & Contractors	12.0
5	Supply, Installation, Testing and Commissioning of PHE & FIRE Alarm systems	Planotech Consultant & Contractors	3.4
6	Centralized Air Conditioning System	Premium Cooling	4.8
7	LED Light fixtures and Ceiling Fan	HAVELLS	1.0
8	10 Passenger Elevator with 3 stops without machine room	KONE Elevator India	1.3
9	Electrical Distribution Transformer oil Cooled 630KVA, 11KVA/433V	Vijay Power Control Systems	1.5
10	Supply of Silent Diesel Generator - 304kW/380kVA & 144KW/180kVA	CUMMINS	3.4
11	Diesel Generator Installation & Commissioning with Exhaust System, Cabling & Earthing	Active Power Technologies	2.2
12	OILFREE Reciprocating Air Compressor & Dessicant type Heatless Air Dryer	ATLAS COPCO	1.0
13	Conductive Safe Tiles - Size: 600 X 600 X 2 mm Surface Resistance: $\leq 10^6$ Ohms	STATIC SYSTEMS	2.2
			<b>124.3</b>

Source: Company





# 7. PROJECT DESCRIPTION

## IT Infrastructure

As per data provided by Company, IT Infrastructure is proposed to be purchased for the Project are mentioned below.

Sr. No	Item	Make	Amount in INR (In Mn)
1	Server	Dell	1.4
2	22U Server Rack with full accessories	Rittal	0.0
3	Laptops	Dell	2.2
4	Desktop Computer	Dell	1.4
5	Printer-copier-Scanner	Xerox	0.3
6	Firewall - SITC of Sophos XGS 2100 with 3yr Xstream Subscription	Sophos	0.3
7	EPABX & TELEPHONES - SITC of NEC SV9100 – 16 Dig Ext, 80 Analog Ext, 1-PRI	Nec	0.2
8	10 Nos NEC Digital phones & 50 Nos Analog Beetel phones	Nec/ Beetel	0.2
9	Fire Alarm - SITC of Ravel Addressable FAS, 100 Detectors		0.7
10	Networking - SITC of Passive & Active Networking, 200 Nodes		1.4
11	PA SYSTEM - SITC of Public Address System, 50 Nos Ceiling Spk, Mic etc		0.3
12	SECURITY & SURVEILLANCE - SITC of Hikvision IP CCTV System, 50 Cameras	Hikvision	0.8
13	SITC of Spectra Access Control & Attendance System	Spectra	0.4
14	SAP - Business One	SAP	3.0
<b>TOTAL</b>			<b>12.3</b>

Source: Company



# 7. PROJECT DESCRIPTION

## Plant & Machinery

As per data provided by Company, machineries proposed to be purchased for the Project are mentioned below.

Sr. No.	Machine Name	Make	Model	Qty	Amount in INR (In million)
1	Pick and Place Machine	FUJI / ASM	AIMEXIIC	2	90.4
2	Fully Automatic Screen Printer	HC AUTOMATION	AETTER	2	22.5
3	Hot Air Reflow oven	HELLER	1936MK5 N2	2	13.8
4	Solder Paste Inspection System (SPI)	KOH YOUNG	KY8080-L	2	11.1
5	Automated Optical Inspection System (AOI)	MIRTEC	MV-6E OMNI	2	19.8
6	Loader Unloader and conveyor Package	YLINK		2	10.0
7	X-Ray Inspection System	NORDSON DAGE	QUADRA 3	1	15.0
8	Selective Soldering System	PILLARHOUSE	JADE MK II	1	4.8
9	PCBA Cleaning - Vapour Degreaser	CC HYDROSONICS LTD	SOLVAC T2 500	1	8.1
10	Ionic contamination tester	AQUEOUS TECHNOLOGIES	Zero-Ion G3-26	1	2.3
11	Wave Soldering Machine	EMS TECHNOLOGIES	Stallion FCPLCJW	1	1.3
12	BGA Rework System	PACE WORLDWIDE	IR4100	1	3.8
13	Flying Probe Tester	SPEA	4020 S2 M	1	17.7
14	In-Circuit Tester	Teradyne	TestStation LH/LHS	1	23.6
15	JTAG - Boundry Scan diagnostic tool	JTAG	JT5705/USB	1	1.7
16	Stencil cleaning Machine	AQUEOUS TECHNOLOGIES	SW-ZDO	1	3.4
17	Solder Paste Mixer	GENITEC TECHNOLOGY	GAM60	1	0.2
18	Bare PCB inline clean	YLINK	ADRC-77X	2	2.4
19	Profiler	KIC	SPS SMART PROFILER	1	1.1
20	Depaneling / Routing Machine	GENITEC TECHNOLOGY	GAM330L	1	3.4
21	Dry cabinet	DR.STORAGE	F1-1200-6	4	1.7
22	Stereo Microscope	MOTIC	SMZ 171	14	2.1
23	Component Counter	GENITEC TECHNOLOGY	GAM12n	1	0.2
24	Soldering Stations	PACE WORLDWIDE	ADS200	40	1.4
25	Fume Extraction System	PACE WORLDWIDE	ARM-EVAC 250	20	3.8

We have considered currency conversion rate as on March 21, 2022

Source: Company



# 7. PROJECT DESCRIPTION

Sr. No.	Machine Name	Make	Model	Qty	Amount in INR (In million)
26	Hot Air Rework System	PACE WORLDWIDE	ST-325	1	0.3
27	ESD Tables	TRESTON		50	14.7
28	ESD Chairs	TRESTON		90	2.6
<b>TOTAL</b>					<b>283.3</b>

We have considered currency conversion rate as on March 21, 2022  
Source: Company

## Credentials of major equipment vendors

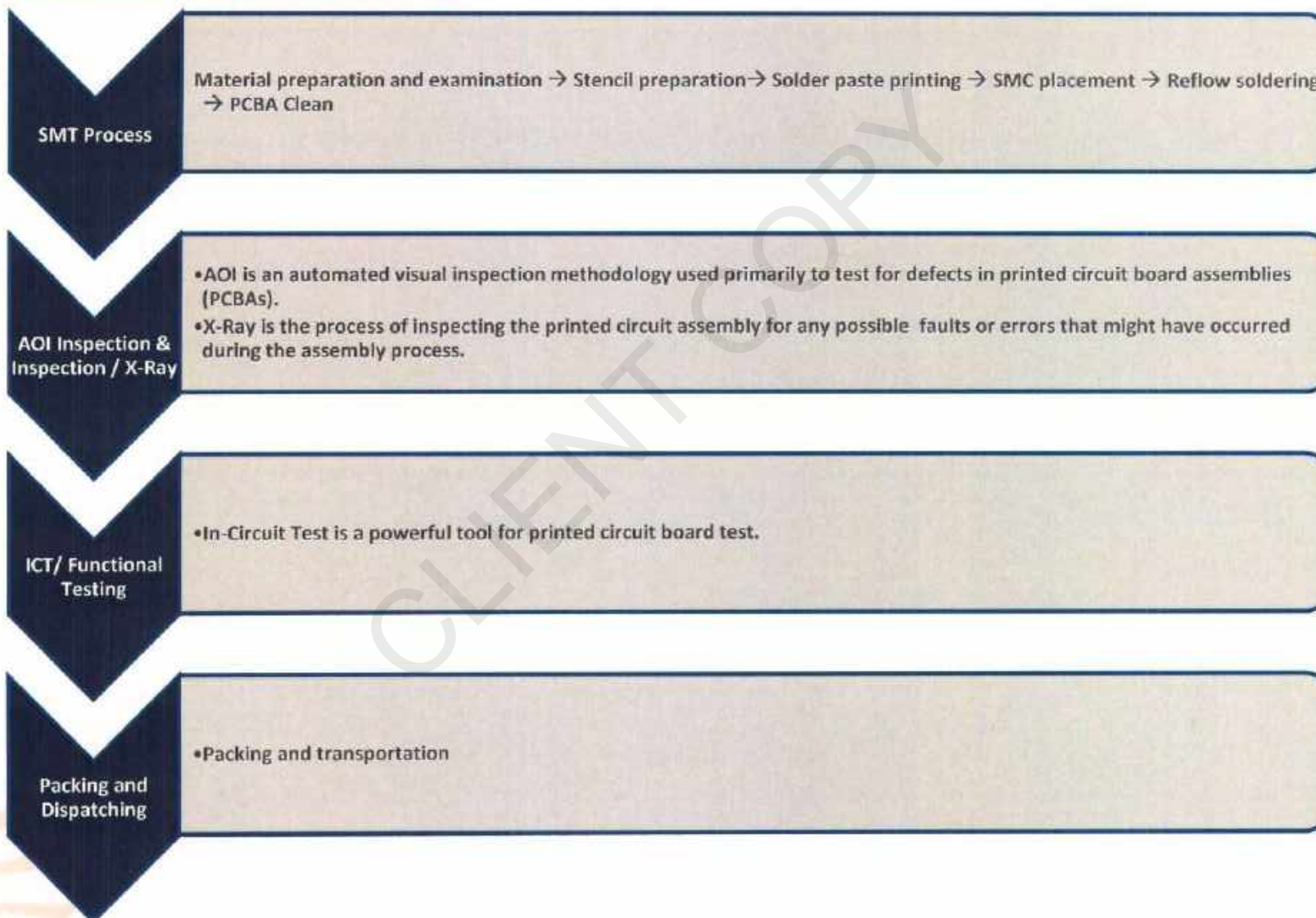
Sr. No.	Machine Manufacturer	Credentials
1	Fuji corporation	Fuji Corporation established in Japan. They manufactures SMT equipment, machine tools, Compact multi joint robots, Atmospheric pressure plasma unit and mobility support robots. Fuji having units mainly in Japan, also in China, India, USA, Germany, Brazil and Singapore.
2	HC Automation	HC Automation was established in year 2009. It is in to research, development and manufacture of screen printer, odd form pick & place machine and odd form insertion machine. It has manufacturing facility at Shenzhen, offices in Shanghai, Beijing and distribution centres in Thailand, Singapore, India.
3	Nordson DAGE	DAGE was founded in 1961 and mainly involved into Semiconductor, PCBA Manufacture, Bondtester and X-ray inspection machine manufacturing. DAGE was acquired by the Nordson Corporation in 2006.
4	SPEA	SPEA established in 1976. Manufactures the Automatic test equipment is used to test semiconductors, MEMS, electronic boards, that are utilized in automotive, consumer, industrial, medical, defense, and other fields.
5	Heller Industries, Inc.	Heller Industries was founded in 1960. Heller Industries, the market leader in reflow oven technology, supplies solutions for electronics manufacturers and assemblers worldwide.

Source: Respective company's website



# 7. PROJECT DESCRIPTION

## Manufacturing Process Flow Chart



Source: Company and RBSA analysis



# 7. PROJECT DESCRIPTION

## Major equipment in manufacturing

- **PCB loader**

This machine is used for automatically loading of PCB on the SMT line. The machine loads the production line automatically by pushing PCBs out of a magazine onto the conveyor of the downstream machine.



- **Solder Paste Printer**

This machine programmed to use a stencil of the finished circuit board for precise solder paste placement. A solder paste is a mixture of tin and copper (can also be a mixture of other metals) used in PCB assembly to make conductive joints between the components and the PCB. It also provides the necessary mechanical bond to hold the components on the PCB.

- **Solder paste inspection machine**

This machine is used for inspection of quality of soldering. Solder Paste Inspection is mainly done to check the solder paste deposits in the Printed Circuit Board (PCB) manufacturing process.



- **Pick and Place Machine**

This machine is used for precision placement of components such as SMD chips, Ball Grid Array (BGA), Quad Flat Package (QFP), Quad-Flat No-Leads (QFN), Plastic Leaded Chip Carrier (PLCC), Small Outline Integrated Circuit (SOIC) on the bare PCB.



# 7. PROJECT DESCRIPTION

## ■ Reflow Oven machine

This machine is used for automatic soldering of components placed on the PCB. The pick and place machine, chip shooter place the components on the PCB which are held in place due to the viscosity of the solder paste. The PCB board passes through the reflow oven. The reflow oven provides a suitable temperature profile to melt the solder and join the components to the PCB.



## ■ Automatic Optical Inspection machine

It is an automated visual inspection of printed circuit board (PCB) assemblies where a camera autonomously scans the device under test for both catastrophic failure (e.g. missing component) and quality defects (e.g. fillet size or shape or component skew). It is commonly used in the manufacturing process because it is a non-contact test method.

## ■ PCB Unloader

This machine used for unloading the PCB from the SMT line.



## ■ In-circuit tester

In-circuit test (ICT) is used for testing PCBA where an electrical probe, tests a populated printed circuit board, checking for shorts, opens, resistance, capacitance, and other basic quantities which will show whether the assembly was correctly fabricated.



# APPROVALS & NOC's

8

## 8. APPROVALS & NOC's

The summary of approvals/ NOC's required to be obtained by the Company at various stage of the Project is as follows:

### a) Contracts/ Agreements

Sr. No.	Name of the Clearance/Approval	Authority	Status of Approval
1	Allotment Letter	Karnataka Industrial Areas Development Board (KIADB)	Yet to obtain
2	Possession Certificate	Karnataka Industrial Areas Development Board (KIADB)	Yet to obtain
3	Lease Deed	Karnataka Industrial Areas Development Board (KIADB)	Yet to obtain

Source: Company

### b) Pre-Construction Stage:

Sr. No.	Name of the Clearance/Approval	Authority	Status of Approval
1	Permanent Water Connection	Karnataka Industrial Areas Development Board (KIADB)	Yet to obtain
2	Consent for Establishment, under Air and Water Pollution Control, and Hazardous Waste Management rules (3 categories)	Karnataka State Pollution Control Board (KSPCB)	Yet to obtain
3	Power Connection	Bangalore Electricity Supply Company Limited (BESCOM)	Yet to obtain
4	Building Plan Approval	Karnataka Industrial Areas Development Board (KIADB)	Yet to obtain
5	Approval of Master Plan under provisions of Karnataka Factories Rule 1969	Department of Factories, Boiler, Safety & Health, GoK	Yet to obtain
6	Provisional NOC from Karnataka State Fire & Emergency Services	Directorate of Fire & Emergency Services, GoK	Yet to obtain

Source: Company

We have requested approved building plans and other approvals and NOC's obtained (if any) for the Project which are required for commencement of Project. As informed by the Company, process of obtaining approvals and NOC's will be initiated after land allotment from KIADB. We have assume that, all the necessary approvals & NOC's will be obtained in due course of time without any delay or changes.





## 8. APPROVALS & NOC's

### c) Pre-Operation:

Certificate / License / NOC	Issuing Authority	Status
COI (Certificate of Incorporation)	Registrar of Companies (RoC)	Obtained
PAN (Permanent Account Number)	Indian Income Tax Department	Obtained
TAN (Tax Deduction and Collection Account Number)	Indian Income Tax Department	Obtained
Commencement of Business	Registrar of Companies (RoC)	Yet to obtain
GST (Goods and Services Tax)	Goods and Services Tax Council	Yet to obtain
IEC (Importer Exporter Code)	Directorate General of Foreign Trade	Yet to obtain
LOP / LOA (Letter of Approval)	CSEZ Authority	Yet to obtain
BLUT (Bond cum Legal Undertaking )	CSEZ Authority	Yet to obtain
Consent to operate	Karnataka State Pollution Control Board	Yet to obtain
Factory License / Shop & Establishment	Department of Factories, Boilers, Industrial Safety & Health	Yet to obtain
MSME (Micro, Small & Medium Enterprises)	Ministry of Micro, Small & Medium Enterprises	Yet to obtain

Source: Company

Note: For pre-operation approvals we assume that same will be obtained before start of operations.

### d) Post-Operation:

Certificate / License / NOC	Issuing Authority	Status
Karnataka Shop & Establishment	Karnataka State Labour Dept.	Yet to obtain
PT (Professional Tax)	Karnataka Professional Tax Dept.	Yet to obtain
EPF (Employees Provident Fund)	Employees' Provident Fund Organization (EPFO)	Yet to obtain
ESI (Employees State Insurance)	Employees' State Insurance Corporation	Yet to obtain
LEI (Legal Entity Identifier )	Global Legal Entity Identifier Foundation (GLEIF)	Yet to obtain

Source: Company



# PROJECT COST & MEANS OF FINANCE

9

# 9. PROJECT COST & MEANS OF FINANCE



## Project Cost

(in INR Mn)	
Particulars	Total
Land (1 acre)	30.0
Building & Infrastructure	124.3
Machineries & Equipment's	283.3
IT Infrastructure	12.3
<b>Total</b>	<b>449.9</b>

Source: Company

Note: Project cost is excluding pre-operatives and contingency.

## Means of Finance

As per the information provided by Company, the Project will be funded by proceeds from IPO (Initial Public Offering) of DCX.

Based on the details provided to us by Company, vetting of Project cost estimated by Company is done on broad level basis by inviting quotations (written or verbal) from manufactures/ vendor of similar product or quotations available in our internal data base. Budgeted cost of Project does not seem to be unreasonable in given circumstances and same is considered for this exercise.



# TECHNICAL ANALYSIS

10

# 10. TECHNICAL ANALYSIS

## Land:

As per data provided by Company, 1.0 acre of land (Plot No. 177 & 178) in SEZ Aerospace Sector, Hi-Tech Defence & Aerospace Park, KIADB Industrial Area, Bengaluru has been identified and company is in the process of purchasing.

During site visit it was observed that, proposed land is two adjacent plots contiguous parcel, rectangular in shape, not bounded by compound wall and abutting to KIADB internal road on two sides. As per site inspection it was observed that, construction activities are yet to commence at Project site. Further, grading and leveling work has to be completed before commencement of the scheduled construction work as the land is having unlevelled topography.

At the time of inspection it was observed that, land parcel is contiguous in nature and abutting by 18.0 meter wide internal road on Western side & 16.0 meter wide internal road Northern side which further connects to KIADB Aerospace SEZ Road.

## Building:

As per Draft plan provided by the Company, structures comprises of Production Building, DG, Electric Room & Utilities, Electrical Transformer & DI-Pole, Security Room (2Nos) etc.,

Other Facilities/Amenities comprises of internal Road, Pathway, Landscaping Area, Compound Wall, Generator / Transformer Yard, Drains, STP, Over Head Tank, Raw water & Firewater Sumps, Rainwater harvesting tanks, Parking, Children play area and Creche Room etc.,

As per BOQ provided by the Company, the proposed production building comprises ground plus one upper floor RCC frame structure with RCC roofing with total 24.0 Ft. clear height. Provision made for one passenger lift. It is proposed with granite flooring for lift lobby and reception area, laminated flush door. Ground floor comprises Administration space, Production Staff space, Waiting Lounge, Discussion Rooms, Service Area, Incoming Area and Toilets. First floor comprises Administration space, Production Staff space, Waiting Lounge, Discussion Rooms, Service Area, Incoming Area and Toilets etc.

As per data provided by the Company, total civil construction and development cost is estimated at INR 124.3 Mn.



# 10. TECHNICAL ANALYSIS

## Plant and machinery:

The plant is proposed to run in one shift, 9 hours a day, 249 days a year till FY 2024. Post FY2024, the plant is projected to run for one and half shift a day depending on production requirement.

Two SMT lines are proposed to be installed in the Project. Each line consists of two pick and place machine (AIMEXIIIc-2R[2\*H24S] and AIMEXIIIc-2R-[H08M+H01]). Configuration/ head type selected for pick and place machine is 2\*H24S, H08M and H01.

As per technical data sheet, capacity of each head to place the components on PCB is as follows.

Head type	Capacity components per hour (CPH)	No. of Heads	Total Capacity (CPH)
H24S	40,000	2	80,000
H08M	14,000	1	14,000
H01	4,200	1	4,200
<b>Total</b>			<b>98,200</b>

Source: Company

As per our discussion with vendors of SMT line and Company officials, capacity of SMT line is dependent on complexity (number of components) of PCB. Further, equipment selected are latest models with updated technology and based on requirement of Company suitable for Project.

The following table shows the utilization per shift over projections period:

Particulars	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Production Capacity per shift #	1,65,670.0	1,65,670.0	1,65,670.0	1,65,670.0	1,65,670.0
Projected Production #	34,444.0	48,444.0	1,15,778.0	1,38,333.0	1,65,453.0

As given to understand by the Management, the plant is capable to run on multiple shifts.

# The installed and utilized capacity of the facility cannot be specified independently as it is dependent on the nature of the product, its design and specifications, raw material, and other relevant details. Since the company is engaged in developing, manufacturing and testing of a range of products for the defence and aerospace industry that are customized to order placed by the company's customers, an estimate with respect to installed or utilised capacity cannot be specified. The capacity of the manufacturing operations varies significantly depending on products manufactured and hence an estimate of the installed / utilized capacity cannot be provided accurately



# 10. TECHNICAL ANALYSIS

## Raw material:

Raw material purchasing from across the globe conforming to customer specific design. Major raw material for the Project will be basic electronics components viz., resistors, diodes, capacitors, integrated circuits and so on. There is no agreement/ letter of intent (LOI) signed however, proposed suppliers are listed below,

SL#	Item category	Suppliers and location
1	Electronic Semiconductor Parts	<ul style="list-style-type: none"><li>▪ Arrow Electronics Asia (S) Pvt. Ltd., Singapore.</li><li>▪ Avnet Asic Israel Ltd (AAI), Israel.</li><li>▪ Future Electronics, Singapore.</li><li>▪ WT Microelectronics, Singapore</li><li>▪ Ecomal Israel Ltd., Israel.</li><li>▪ Bos-odem Ltd., Israel.</li><li>▪ Macnica Cytech Pvt. Ltd., Singapore.</li><li>▪ TTI Inc., USA.</li><li>▪ STG International Ltd., Israel.</li></ul>
2	Printed Circuit Boards	<ul style="list-style-type: none"><li>▪ Hi-Q Electronics Pvt. Ltd., India.</li><li>▪ Micropack Pvt. Ltd., India.</li><li>▪ Boardtek Electronics Corp., Taiwan.</li><li>▪ Aspocomp Group PLC., Finland.</li></ul>

Source: Company



# 10. TECHNICAL ANALYSIS

## Power and Water:

Total power requirement for the Project is proposed at 900 kVA and water requirement is estimated at approximately 45,000 liter per month. As the Project is proposed in KIADB developed area, power and water connections will be provided post allotment/ procurement of land.

## Approvals:

We have requested approved building plans and other approvals and NOC's obtained (if any) for the Project which are required for commencement of Project. As informed by the Company, process of obtaining approvals and NOC's will be initiated after land allotment from KIADB. We have assume that, all the necessary approvals & NOC's will be obtained in due course of time.

## Construction Progress of Project:

At the time of site visit it was observed that, construction work of the Project is yet to start. As per Project schedule, construction of the Project will commence in August, 2022 post necessary site development and approvals & NOC's.

## Manpower Requirement

Total manpower requirement for the Project is around 136 people. Proposed skilled and semi skilled employees are as follows,

The industrial area is well connected Bangalore city. Hence availability of manpower is not envisaged to be a constraint.

Manpower	Head Count
Plant Head	1
Managers	7
Engineers	10
Executives	15
Skilled Labour	40
Semi-skilled	50
Maintenance	3
Front Office	1
House Keeping	5
Security	4
<b>TOTAL</b>	<b>136</b>

Source: Company





# FINANCIAL ANALYSIS

11

# 11.1 Financial Snapshot of DCX

Revenue snapshot		(In INR Mn)			
Particulars	2019	2020	2021	2022 *	
Operating Revenue	2,998.7	4,492.6	6,411.6	7,282.4	
Expenses	2,952.1	4,430.4	6,310.8	6,977.3	
EBITDA	46.6	62.2	100.8	305.1	
<b>EBITDA (In%)</b>	<b>1.6%</b>	<b>1.4%</b>	<b>1.6%</b>	<b>4.2%</b>	
<b>Networth</b>	<b>74.5</b>	<b>171.7</b>	<b>467.9</b>	<b>799.4</b>	

\* for nine months period ended December 31, 2021

## Key points:

- DCX facility spread over 30,000 square feet having in-house set up for manufacturing Cable & Wire Harness, Electronics and Electro-Mechanical Assemblies and Sub-System Integration and facility for Environmental & Electrical testing
- As given to understand by the Management, DCX has an order book of ~INR 30,000 Mn as on February 28, 2022 which is to be executed in next 2-3 years. DCX assembles the PCBA manufactured by Tier 2 suppliers like Vinyas Innovative, Cyient DLM, Astra Microwave and RNSE-tronics etc.
- The following table depicts the total purchases made over last 3 years from Tier 2 suppliers:

		(In INR Mn)			
Name of the Party	Item	FY 2019	FY 2020	FY 2021	FY 2022 *
Vinyas Innovative Technologies Pvt. Ltd.	PCBA	510.6	289.2	967.6	559.7
Rangsons / Cyient DLM Pvt.Ltd	PCBA	1,180.0	961.6	770.9	1,096.5
Astra Microwave Products Limited	PCBA	457.1	477.7	620.3	684.1
RNSE-TRONICS Pvt. Ltd.	Components	-	144.5	1,900.0	1,040.0
RNS Electronics	Components	-	1,191.7	10.7	-
<b>Total</b>		<b>2,147.8</b>	<b>3,064.8</b>	<b>4,269.5</b>	<b>3,380.3</b>

\* for nine months period ended December 31, 2021

The orders which were hitherto executed by above parties shall be executed by RASPL once the plant is operational. Considering the revenue of DCX have increased over the years, RASPL shall be able to get orders from DCX.



# 11.2 Financial Projections - RASPL



Profit and Loss Statement		in INR Millions				
Particulars	Projected Period					
	2023	2024	2025	2026	2027	2028
<b>Income</b>						
Revenue From Operations						
- Sales to Holding	-	2,500.0	3,000.0	3,500.0	3,750.0	4,090.0
- Sales to Others	-	350.0	500.0	1,250.0	1,500.0	1,800.0
<b>Total Income</b>	-	<b>2,850.0</b>	<b>3,500.0</b>	<b>4,750.0</b>	<b>5,250.0</b>	<b>5,890.0</b>
<b>Expenses</b>						
Cost of Goods sold	-	2,523.0	3,090.0	4,125.0	4,545.0	5,085.0
Employee benefits expense	-	41.1	47.1	54.0	61.8	70.7
Other Expenses	-	26.0	27.3	38.7	40.1	41.6
<b>Total Expenses</b>	-	<b>2,590.1</b>	<b>3,164.4</b>	<b>4,217.7</b>	<b>4,646.9</b>	<b>5,197.3</b>
<b>EBITDA</b>	-	<b>259.9</b>	<b>335.6</b>	<b>532.3</b>	<b>603.1</b>	<b>692.7</b>
Depreciation	-	73.1	59.4	48.5	39.8	32.8
<b>EBIT</b>	-	<b>186.7</b>	<b>276.1</b>	<b>483.8</b>	<b>563.3</b>	<b>659.9</b>
Other Income - Non Operating	-	-	-	6.0	20.0	38.0
Finance Cost	-	43.2	58.0	67.1	74.8	82.6
<b>PBT</b>	-	<b>143.6</b>	<b>218.1</b>	<b>422.7</b>	<b>508.5</b>	<b>615.3</b>
Tax Expense	-	26.6	38.7	73.4	87.7	105.8
<b>Profit After Tax</b>	-	<b>116.9</b>	<b>179.4</b>	<b>349.4</b>	<b>420.8</b>	<b>509.5</b>

### Key points:

- Revenue from operation comprises of sale of PCBA mainly to holding company (DCX). The Management has assumed that the Company would be able to procure orders from entities in medical, railways, industrial etc., to reduce its dependency on holding company.
- Cost of goods sold has been assumed at 90% of sales to holding company and 78% of sales to other entities.
- The total number of employees has been assumed at 136 whose cost are expected to increase at 15% on y-o-y basis.
- Other Expenses majorly includes expenses towards electricity, fuel, insurance, transportation and administration expenses.
- Other non-operating income represent interest on FD.
- Finance cost includes bank charges and interest on working capital (PCFC) at an interest rate of 7.35%.
- Tax rate assumed by Management is 15% as per the finance bill for FY 2022-23



# 11.2 Financials Projections



Balance Sheet		in INR Millions				
Particulars	Projected Period					
	2023	2024	2025	2026	2027	2028
<b>ASSETS</b>						
<b>Non Current Assets</b>						
Fixed Assets	450.0	450.0	450.0	450.0	450.0	450.0
Less: Accumulated Depreciation	-	(73.1)	(132.6)	(181.1)	(220.9)	(253.7)
Net Fixed Assets	450.0	376.9	317.4	268.9	229.1	196.3
<b>Total Non Current Assets</b>	<b>450.0</b>	<b>376.9</b>	<b>317.4</b>	<b>268.9</b>	<b>229.1</b>	<b>196.3</b>
<b>Current Assets</b>						
Inventories - Holding	-	562.5	656.3	703.1	766.9	843.6
Inventories - Others	-	81.3	203.1	243.8	292.5	321.8
Trade Receivables	-	296.9	364.6	494.8	546.9	613.5
Cash and Cash equivalents	-	-	-	-	-	-
Fixed Deposit	-	-	150.0	500.0	950.0	1,450.0
<b>Total Current Assets</b>	<b>-</b>	<b>940.6</b>	<b>1,374.0</b>	<b>1,941.7</b>	<b>2,556.3</b>	<b>3,228.9</b>
<b>TOTAL ASSETS</b>	<b>450.0</b>	<b>1,317.5</b>	<b>1,691.4</b>	<b>2,210.5</b>	<b>2,785.3</b>	<b>3,425.1</b>
<b>EQUITY &amp; LIABILITIES</b>						
<b>EQUITY</b>						
Equity Share Capital	450.0	450.0	450.0	450.0	450.0	450.0
Other Equity	-	116.9	296.3	645.7	1,066.5	1,576.0
<b>Total Equity</b>	<b>450.0</b>	<b>566.9</b>	<b>746.3</b>	<b>1,095.7</b>	<b>1,516.5</b>	<b>2,026.0</b>
<b>Current Liabilities</b>						
Short Term Borrowings	-	558.2	735.7	848.3	974.1	1,070.7
Trade Payables	-	190.0	206.6	263.3	291.1	324.4
Other Current Liabilities	-	2.3	2.8	3.3	3.7	4.1
<b>Total Current Liabilities</b>	<b>-</b>	<b>750.5</b>	<b>945.1</b>	<b>1,114.9</b>	<b>1,268.8</b>	<b>1,399.2</b>
<b>TOTAL EQUITY &amp; LIABILITIES</b>	<b>450.0</b>	<b>1,317.5</b>	<b>1,691.4</b>	<b>2,210.5</b>	<b>2,785.3</b>	<b>3,425.1</b>



# 11.2 Financials Projections



## Key points:

- Company has been incorporated with the share capital of INR 1 Mn in February 2022 and is in a process of setting up facility for manufacturing of PCBA.
- The capex would be completed by June 2023 from the IPO proceeds of DCX. As given to understand by the Management, no capex would be required for the projections period and the same maintenance capex if any, shall be incurred post projection period. Hence, no outgo has been assumed towards additional/maintenance capex during projection period.
- Inventory shall comprise of raw material, consumables and finished stock. Inventory has been worked out based on 2.5 months of cost of good sold.
- Trade receivables has been worked out assuming 1.25 months of Revenue
- The shortfall in working capital is assumed to be met by taking short term working capital loan at an interest rate of 7.35%.
- Trade payables has been worked out based on 3 weeks of raw material purchase. Other current liabilities has been worked out based on 1 week of other expenses.

CLIENT COPY



# 11.2 Financials Projections

Projected Cahflow Statement in INR millions

Particulars	Projected Period					
	2023	2024	2025	2026	2027	2028
<b>A. Cash Flow from operating activities :</b>						
Net Profit after Tax	-	116.9	179.4	349.4	420.8	509.5
Add: Interest expenses	-	43.2	58.0	67.1	74.8	82.6
Add: Depreciation	-	73.1	59.4	48.5	39.8	32.8
<b>Cash Operating Profit</b>	-	233.3	296.8	465.0	535.4	624.9
<b>Adjustments for :</b>						
Working Capital Changes		(748.3)	(266.3)	(160.5)	(136.4)	(138.9)
<b>Cash from operating activities before tax</b>	-	(515.1)	30.6	304.5	399.0	486.0
<b>Net Cash from operating activities</b>	-	(515.1)	30.6	304.5	399.0	486.0
<b>B. Cash Flow from investing activities :</b>						
Sale / (Purchase) of fixed assets (including CWIP)	(450.0)	-	-	-	-	-
<b>Net Cash generated / (used) from investing activities</b>	(450.0)	-	-	-	-	-
<b>Net Free Cash Flows</b>	(450.0)	(515.1)	30.6	304.5	399.0	486.0
<b>C. Cash Flow from financing activities :</b>						
Issue / (Repayment) of Share Capital	449.0	-	-	-	-	-
Short term bank borrowing	-	558.2	177.5	112.6	125.8	96.6
Less: Interest	-	(43.2)	(58.0)	(67.1)	(74.8)	(82.6)
<b>Net Cash generated / (used) from financing activities</b>	449.0	515.1	119.4	45.5	51.0	14.0
Net increase / (decrease) in cash and cash equivalents	(1.0)	-	150.0	350.0	450.0	500.0
Cash and cash equivalents (Opening Balance)	1.0	-	-	150.0	500.0	950.0
<b>Cash and cash equivalents (Closing Balance)</b>	-	-	150.0	500.0	950.0	1,450.0

# 11.2 Financials Projections



Working Capital		in INR millions				
Particulars	2023	2024	2025	2026	2027	2028
Trade Receivables	-	296.9	364.6	494.8	546.9	613.5
Inventory - Holding	-	562.5	656.3	703.1	766.9	843.6
Inventory - Others	-	81.3	203.1	243.8	292.5	321.8
<b>Assets</b>	-	<b>940.6</b>	<b>1,224.0</b>	<b>1,441.7</b>	<b>1,606.3</b>	<b>1,778.9</b>
Trade payables	-	190.0	206.6	263.3	291.1	324.4
Other current Liabilities	-	2.3	2.8	3.3	3.7	4.1
<b>Liabilities</b>	-	<b>192.3</b>	<b>209.4</b>	<b>266.6</b>	<b>294.8</b>	<b>328.5</b>
Net Working Capital	-	748.3	1,014.6	1,175.1	1,311.5	1,450.4
Change in Working Capital	-	(748.3)	(266.3)	(160.5)	(136.4)	(138.9)
<b>Time period in Months</b>						
Debtors		1.25	1.25	1.25	1.25	1.25
Inventory - Holding		2.50	2.50	2.50	2.50	2.50
Inventory - Others		2.50	2.50	2.50	2.50	2.50
Creditors		0.88	0.78	0.75	0.75	0.75
Net Working Capital (in months)		2.87	2.97	3.00	3.00	3.00
Net Working Capital as a % of revenue		26%	29%	25%	25%	25%



# 11.3 Industry Analysis

The following companies has been considered as comparable for the purposes of our analysis

- Centum Electronics Limited - CEL manufactures modules and sub-systems used in the aerospace, defence, and industrial electronic sectors. CAG manufactures products for the rail transportation market, focusing on improving energy efficiency, security, and real-time information access.
- Kaynes Technology India Private Limited - The company is primarily engaged in turnkey manufacturing of printed circuit board assemblies, and also offers end-to-end services for PCBs. It has seven manufacturing facilities, one design services facility, and two service centres.
- Bhavyabhanu Electronics Private Limited - The company engaged in the business of manufacture, supply, installations and service of all electronic machinery, components, spares and other electronic parts. The Company is a wholly owned subsidiary of Astra Microwave Products Limited

Adjoining table provides the analysis of comparable companies key financial parameters.

Particulars	FY 20	FY 21
<b>EBITDA</b>		
Centum Electronics	14.78%	14.70%
Kaynes Technology	11.72%	9.72%
Bhavyabhanu Electronics	-0.78%	5.97%
<b>Inventory</b>		
Centum Electronics	9.43	8.63
Kaynes Technology	7.22	6.84
Bhavyabhanu Electronics	5.25	2.40
<b>Receivables</b>		
Centum Electronics	4.23	2.82
Kaynes Technology	3.09	3.71
Bhavyabhanu Electronics	0.14	0.69
<b>Trade payable</b>		
Centum Electronics	4.86	2.91
Kaynes Technology	4.55	3.94
Bhavyabhanu Electronics	2.14	0.17
<b>Operating WC (as % of Revenue)</b>		
Centum Electronics	57%	51%
Kaynes Technology	41%	47%
Bhavyabhanu Electronics	26%	22%





# 11.4 Ratio Analysis

Payback period in INR millions

Particulars	Projected Period					
	2023	2024	2025	2026	2027	2028
Capex	(450.0)	-	-	-	-	-
PAT	-	116.9	179.4	349.4	420.8	509.5
Depreciation	-	73.1	59.4	48.5	39.8	32.8
<b>Total Inflow/(Outflow)</b>	<b>(450.0)</b>	<b>190.1</b>	<b>238.8</b>	<b>397.9</b>	<b>460.6</b>	<b>542.3</b>
Payback period	2 years 19 days					

in INR millions

Particulars	Projected Period					
	2023	2024	2025	2026	2027	2028
Inventories - Holding	-	562.5	656.3	703.1	766.9	843.6
Inventories - Others	-	81.3	203.1	243.8	292.5	321.8
Trade Receivables	-	296.9	364.6	494.8	546.9	613.5
Cash and Cash equivalents	-	-	150.0	500.0	950.0	1,450.0
<b>Current Assets</b>	<b>-</b>	<b>940.6</b>	<b>1,374.0</b>	<b>1,941.7</b>	<b>2,556.3</b>	<b>3,228.9</b>
Trade Payables	-	190.0	206.6	263.3	291.1	324.4
Current Portion of LT Debt	-	558.2	735.7	848.3	974.1	1,070.7
Other Current Liab	-	2.3	2.8	3.3	3.7	4.1
<b>Current Liabilities</b>	<b>-</b>	<b>748.2</b>	<b>942.3</b>	<b>1,111.5</b>	<b>1,265.2</b>	<b>1,395.1</b>
<b>Current Ratio</b>		<b>1.3</b>	<b>1.5</b>	<b>1.7</b>	<b>2.0</b>	<b>2.3</b>
<b>Quick Ratio</b>		<b>0.4</b>	<b>0.5</b>	<b>0.9</b>	<b>1.2</b>	<b>1.5</b>
<b>Cash Ratio</b>		<b>-</b>	<b>0.2</b>	<b>0.4</b>	<b>0.8</b>	<b>1.0</b>
Working Capital Loans	-	558.2	735.7	848.3	974.1	1,070.7
Debt	-	558.2	735.7	848.3	974.1	1,070.7
Networth	450.0	566.9	746.3	1,095.7	1,516.5	2,026.0
<b>Debt / Equity Ratio</b>	<b>-</b>	<b>1.0</b>	<b>1.0</b>	<b>0.8</b>	<b>0.6</b>	<b>0.5</b>
EBIT	-	186.7	276.1	483.8	563.3	659.9
Interest Expense	-	43.2	58.0	67.1	74.8	82.6
<b>Interest Coverage Ratio</b>		<b>4.3</b>	<b>4.8</b>	<b>7.2</b>	<b>7.5</b>	<b>8.0</b>



# 11.4 Ratio Analysis

**Breakeven Analysis** in INR millions

Particulars	Projected Period					
	2023	2024	2025	2026	2027	2028
Sales	-	-	-	-	-	-
to Holding company	-	2,500.0	3,000.0	3,500.0	3,750.0	4,090.0
To others	-	350.0	500.0	1,250.0	1,500.0	1,800.0
Other Income	-	-	-	6.0	20.0	38.0
<b>Total Revenue (a)</b>	-	<b>2,850.0</b>	<b>3,500.0</b>	<b>4,756.0</b>	<b>5,270.0</b>	<b>5,928.0</b>
Variabe Cost - Cost of Good Sold	-	2,523.0	3,090.0	4,125.0	4,545.0	5,085.0
<b>Contribution</b>	-	<b>327.0</b>	<b>410.0</b>	<b>631.0</b>	<b>725.0</b>	<b>843.0</b>
<b>Contribution (in%) - (b)</b>	-	<b>11.47%</b>	<b>11.71%</b>	<b>13.27%</b>	<b>13.76%</b>	<b>14.22%</b>
Fixed Cost						
Employee cost	-	41.1	47.1	54.0	61.8	70.7
Depreciation	-	73.1	59.4	48.5	39.8	32.8
Finance cost	-	43.2	58.0	67.1	74.8	82.6
Other Expenses	-	26.0	27.3	38.7	40.1	41.6
<b>Total Fixed Cost (c)</b>	-	<b>183.4</b>	<b>191.9</b>	<b>208.3</b>	<b>216.5</b>	<b>227.7</b>
<b>Breakeven Sales (in INR) - (c)/(b)</b>	-	<b>1,598.8</b>	<b>1,638.1</b>	<b>1,569.8</b>	<b>1,573.6</b>	<b>1,601.5</b>

# 11.5 Sensitivity Analysis – 1



Sensitivity analysis 1 assuming that there is no sales to 3<sup>rd</sup> parties

Profit and Loss Statement		in INR Millions				
Particulars	2023	2024	Projected Period		2027	2028
			2025	2026		
<b>Income</b>						
Revenue From Operations						
- Sales to Holding	-	2,500.0	3,000.0	3,500.0	3,750.0	4,090.0
<b>Total Income</b>	-	<b>2,500.0</b>	<b>3,000.0</b>	<b>3,500.0</b>	<b>3,750.0</b>	<b>4,090.0</b>
<b>Expenses</b>						
Cost of Goods sold	-	2,250.0	2,700.0	3,150.0	3,375.0	3,681.0
Employee benefits expense	-	41.1	47.1	54.0	61.8	70.7
Other Expenses	-	26.0	27.3	38.7	40.1	41.6
<b>Total Expenses</b>	-	<b>2,317.1</b>	<b>2,774.4</b>	<b>3,242.7</b>	<b>3,476.9</b>	<b>3,793.3</b>
<b>EBITDA</b>	-	<b>182.9</b>	<b>225.6</b>	<b>257.3</b>	<b>273.1</b>	<b>296.7</b>
Depreciation	-	73.1	59.4	48.5	39.8	32.8
<b>EBIT</b>	-	<b>109.7</b>	<b>166.1</b>	<b>208.8</b>	<b>233.3</b>	<b>263.9</b>
Other Income - Non Operating	-	-	-	6.0	20.0	38.0
Finance Cost	-	37.9	45.7	49.9	54.2	59.5
<b>PBT</b>	-	<b>71.9</b>	<b>120.4</b>	<b>164.8</b>	<b>199.1</b>	<b>242.4</b>
Tax Expense	-	14.3	22.0	29.1	34.6	41.8
<b>Profit After Tax</b>	-	<b>57.6</b>	<b>98.4</b>	<b>135.7</b>	<b>164.4</b>	<b>200.6</b>

Payback period		in INR millions				
Particulars	2023	2024	Projected Period		2027	2028
			2025	2026		
Capex	(450.0)	-	-	-	-	-
PAT	-	57.6	98.4	135.7	164.4	200.6
Depreciation	-	73.1	59.4	48.5	39.8	32.8
<b>Total Inflow/(Outflow)</b>	<b>(450.0)</b>	<b>130.7</b>	<b>157.9</b>	<b>184.3</b>	<b>204.3</b>	<b>233.4</b>
Payback period	2 years 320 days					



# 11.5 Sensitivity Analysis - 1

Sensitivity analysis 1 assuming that there is no sales to 3<sup>rd</sup> parties

Breakeven Analysis		in INR millions				
Particulars	Projected Period					
	2023	2024	2025	2026	2027	2028
Sales	-	-	-	-	-	-
to Holding company	-	2,500.0	3,000.0	3,500.0	3,750.0	4,090.0
To others	-	-	-	-	-	-
Other Income	-	-	-	6.0	20.0	38.0
<b>Total Revenue (a)</b>	-	<b>2,500.0</b>	<b>3,000.0</b>	<b>3,506.0</b>	<b>3,770.0</b>	<b>4,128.0</b>
Variabe Cost - Cost of Good Sold	-	2,250.0	2,700.0	3,150.0	3,375.0	3,681.0
<b>Contribution</b>	-	<b>250.0</b>	<b>300.0</b>	<b>356.0</b>	<b>395.0</b>	<b>447.0</b>
<b>Contribution (in%) - (b)</b>	-	<b>10.00%</b>	<b>10.00%</b>	<b>10.15%</b>	<b>10.48%</b>	<b>10.83%</b>
Fixed Cost						
Employee cost	-	41.1	47.1	54.0	61.8	70.7
Depreciation	-	73.1	59.4	48.5	39.8	32.8
Finance cost	-	37.9	45.7	49.9	54.2	59.5
Other Expenses	-	26.0	27.3	38.7	40.1	41.6
<b>Total Fixed Cost (c)</b>	-	<b>178.1</b>	<b>179.6</b>	<b>191.2</b>	<b>195.9</b>	<b>204.6</b>
<b>Breakeven Sales (in INR) - (c)/(b)</b>	-	<b>1,781.3</b>	<b>1,795.8</b>	<b>1,882.6</b>	<b>1,870.1</b>	<b>1,889.6</b>

# 11.6 Sensitivity Analysis – 2



Sensitivity analysis 2 assuming that there is no sales to 3<sup>rd</sup> parties , receivables collection period at 2.45 months, inventory holding period at 6.65 months and Trade payables period at 3 months

## Profit and Loss Statement in INR Millions

Particulars	Projected Period					
	2023	2024	2025	2026	2027	2028
<b>Income</b>						
Revenue From Operations						
- Sales to Holding	-	2,500.0	3,000.0	3,500.0	3,750.0	4,090.0
<b>Total Income</b>	-	<b>2,500.0</b>	<b>3,000.0</b>	<b>3,500.0</b>	<b>3,750.0</b>	<b>4,090.0</b>
<b>Expenses</b>						
Cost of Goods sold	-	2,250.0	2,700.0	3,150.0	3,375.0	3,681.0
Employee benefits expense	-	41.1	47.1	54.0	61.8	70.7
Other Expenses	-	26.0	27.3	38.7	40.1	41.6
<b>Total Expenses</b>	-	<b>2,317.1</b>	<b>2,774.4</b>	<b>3,242.7</b>	<b>3,476.9</b>	<b>3,793.3</b>
<b>EBITDA</b>	-	<b>182.9</b>	<b>225.6</b>	<b>257.3</b>	<b>273.1</b>	<b>296.7</b>
Depreciation	-	73.1	59.4	48.5	39.8	32.8
<b>EBIT</b>	-	<b>109.7</b>	<b>166.1</b>	<b>208.8</b>	<b>233.3</b>	<b>263.9</b>
Other Income - Non Operating	-	-	-	6.0	20.0	38.0
Finance Cost	-	60.8	91.3	99.5	108.1	118.6
<b>PBT</b>	-	<b>48.9</b>	<b>74.8</b>	<b>115.3</b>	<b>145.2</b>	<b>183.2</b>
Tax Expense	-	10.4	14.2	20.6	25.4	31.6
<b>Profit After Tax</b>	-	<b>38.6</b>	<b>60.7</b>	<b>94.7</b>	<b>119.8</b>	<b>151.6</b>

## Payback period in INR millions

Particulars	Projected Period					
	2023	2024	2025	2026	2027	2028
Capex	(450.0)	-	-	-	-	-
PAT	-	38.6	60.7	94.7	119.8	151.6
Depreciation	-	73.1	59.4	48.5	39.8	32.8
<b>Total Inflow/(Outflow)</b>	<b>(450.0)</b>	<b>111.7</b>	<b>120.1</b>	<b>143.3</b>	<b>159.7</b>	<b>184.4</b>
Payback period	3 years 171 days					



# 11.6 Sensitivity Analysis – 2



Sensitivity analysis 2 assuming that there is no sales to 3<sup>rd</sup> parties , receivables collection period at 2.45 months, inventory holding period at 6.65 months and Trade payables period at 3 months

Breakeven Analysis		in INR millions				
Particulars	Projected Period					
	2023	2024	2025	2026	2027	2028
Sales	-	-	-	-	-	-
to Holding company	-	2,500.0	3,000.0	3,500.0	3,750.0	4,090.0
Other Income	-	-	-	6.0	20.0	38.0
<b>Total Revenue (a)</b>	-	<b>2,500.0</b>	<b>3,000.0</b>	<b>3,506.0</b>	<b>3,770.0</b>	<b>4,128.0</b>
Variabe Cost - Cost of Good Sold	-	2,250.0	2,700.0	3,150.0	3,375.0	3,681.0
<b>Contribution</b>	-	<b>250.0</b>	<b>300.0</b>	<b>356.0</b>	<b>395.0</b>	<b>447.0</b>
<b>Contribution (in%) - (b)</b>	-	<b>10.00%</b>	<b>10.00%</b>	<b>10.15%</b>	<b>10.48%</b>	<b>10.83%</b>
Fixed Cost						
Employee cost	-	41.1	47.1	54.0	61.8	70.7
Depreciation	-	73.1	59.4	48.5	39.8	32.8
Finance cost	-	60.8	91.3	99.5	108.1	118.6
Other Expenses	-	26.0	27.3	38.7	40.1	41.6
<b>Total Fixed Cost (c)</b>	-	<b>201.1</b>	<b>225.2</b>	<b>240.7</b>	<b>249.8</b>	<b>263.8</b>
<b>Breakeven Sales (in INR) - (c)/(b)</b>	-	<b>2,010.5</b>	<b>2,251.5</b>	<b>2,370.3</b>	<b>2,384.0</b>	<b>2,435.8</b>



# CONCLUSION

# 12

# 12. CONCLUSION



We have concluded our TEV study analysis based on assumptions/ considerations mentioned below:-

- a) The overall financial, liquidity and profitability parameters of the Project are considered reasonable over the long-term subject to the assumptions mentioned in Chapter 11.1
- b) The success and the viability of the proposed Project and the ability of the firm to repay its liabilities are dependent and predicated upon many uncontrollable market factors and uncertain future events turning out to be in the favour of the firm.
- c) The realisation of the projections based on which the report has been prepared, is dependent on the continuing validity of the assumptions on which they are based. The report cannot be directed to provide an assurance about the achievability of these financial projections
- d) Our team had visited the identified site on March 8, 2022.

### **Economic, Financial and Technical Viability:**

An independent TEV study has been conducted by RBSA to examine the viability of the Project. The following can be concluded;

- a) RASPL is proposing to set-up a facility for Electronics Manufacturing Services (PCB Assembly) in SEZ Aerospace Park, Devanahalli, Bengaluru.
- b) As informed by the Management, the Company is in the process of obtaining necessary approvals and NOC's required for setting up of facility including allotment of land from KIADB. We have assumed that the Company will receive the necessary approvals & NOC's in due course of time without any delay or changes.
- c) As per Implementation Schedule provided by Management, the project is to be funded through IPO proceeds of DCX and the work for setting up of PCB Assembly will commence from September 2022 and shall be completed by June 2023. Any change in timing of IPO and/or setting up of facility can have an impact on our outcome and the same can be material.

### **Assessment of overall Viability:**

Subject to scope & limitations/ assumptions mentioned in this report and giving due regard to the risk and concerns enumerated therein, the proposal for setting up the project can be considered as Technically and Economically viable





# 12. CONCLUSION



## Assessment of overall Viability:

Subject to scope & limitations/ assumptions mentioned in this report and giving due regard to the risk and concerns enumerated therein, the proposal for setting up the project can be considered as Technically and Economically viable

**For RBSA Valuation Advisors LLP**

Handwritten signature of Samir Shah in blue ink.

**Samir Shah**

Partner

Date: March 23, 2022



Handwritten signature of Tejas Shah in blue ink.

**Tejas Shah**

Partner

Handwritten signature of Dattatraya Kota in blue ink.

**Dattatraya Kota**

Partner

# ANNEXURES

# A

# ANNEXURE I. GLOSSARY

Sr. No.	Abbreviation	Full Form
1	AOI	Automated Optical Inspection System
2	BGA	Ball Grid Array
3	BLR	Bengaluru
4	BLUT	Bond cum Legal Undertaking
5	BOQ	Bill of Quantity
6	CAGR	Compound Annual Growth Rate
7	CCTV	Closed-circuit Television
8	CEIG	Chief Electrical Inspector to Government.
9	COI	Certificate of Incorporation
10	CPH	Capacity components per hour
11	CTC	Cost to Company
12	DCX	DCX Systems Limited
13	DGM	Deputy General Manager
14	DRHP	Draft Red Herring Prospectus
15	EBIT	Earnings Before Interest and Taxes
16	EBITDA	Earnings Before Interest, Tax, Depreciation and Amortization
17	EMS	Electronics Manufacturing Service
18	EPF	Employees Provident Fund
19	EPFO	Employees' Provident Fund Organization
20	ESD	Electrostatic Dissipative
21	ESDM	Electronics System Design and Manufacturing
22	ESI	Employees State Insurance
23	ET	Economic Times
24	FPS	Fire Protection System
25	FY	Financial Year
26	GDP	Gross Domestic Products

Sr. No.	Abbreviation	Full Form
27	GE	General Electricals
28	GLEIF	Global Legal Entity Identifier Foundation
29	GOI	Government of Karnataka
30	GST	Goods and Services Tax
31	GST	Goods and Services Tax
32	Hr	Hour
33	HT	High Tension
34	HVAC	Heating Ventilation Air Condition
35	ICEA	India Cellular & Electronics Association
36	ICT	In-circuit Test
37	IEC	Importer Exporter Code
38	IIMB	Indian Institute of Management
39	IISc	Indian Institute of Science
40	INR	Indian Rupee
41	IoT	Internet of Things
42	IPO	Initial Public Offering
43	IT	Information Technology
44	KIADB	Karnataka Industrial Area development Board
45	KSPCB	Karnataka State Pollution Control Board
46	KVA	Kilo Volt Amphs
47	LED	Light Emitting Diode
48	LEI	Legal Entity Identifier
49	LLP	Limited Liability Partnership
50	LOA	Letter of Approval
51	LT	Low Tension
52	LTD	Limited



# ANNEXURE I. GLOSSARY

Sr. No.	Abbreviation	Full Form
53	MeitY	Ministry of Electronics and Information Technology
54	MSME	Micro, Small & Medium Enterprises
55	NIMHANS	National Institute of Mental Health and Neurosciences
56	NOC	No Objection Certificate
57	NPE	National Policy for Electronics
58	OEM	Original Equipment Manufacturer
59	PAN	Permanent Account Number
60	PCB	Printed Circuit Board
61	PCBA	Printed Circuit Board Assembly
62	PEB	Pre Engineering Building
63	PHE	Public and Health Engineering
64	PLCC	Outline Integrated Circuit
65	PR	Project Report
66	PT	Professional Tax
67	QFN	Quad-Flat No-Leads
68	QFP	Quad Flat Package
69	R&D	Research and Development
70	RASPL	RaNeal Advanced Systems Private Limited
71	RBSA	RBSA Valuation Advisors LLP
72	RCC	Reinforced Cement Concrete
73	RoC	Registrar of Companies
74	SEZ	Special Economical Zone
75	SMT	Square Meter
76	SMT	Surface Mounting Technology
77	SMTA	Surface Mount Technology Association
78	SOIC	Small Outline Integrated Circuit


Sr. No.	Abbreviation	Full Form
79	STP	Sewage Treatment Plant
80	SWOT	Strengths, Weaknesses, Opportunities, and Threats
81	TAN	Tax Deduction and Collection Account Number
82	TCS	Tata Consultancy Service
83	TEV	Techno Economic Viability
84	US	United States
85	USA	United States America
86	V	Volts



# ANNEXURE II. EXHIBITS



## Exhibit A: Certificate of Incorporation

  
GOVERNMENT OF INDIA  
MINISTRY OF CORPORATE AFFAIRS  
Central Registration Centre

**Certificate of Incorporation**

[Pursuant to sub-section (2) of section 7 and sub-section (1) of section 8 of the Companies Act, 2013 (18 of 2013) and rule 18 of the Companies (Incorporation) Rules, 2014]


I hereby certify that RANEAL ADVANCED SYSTEMS PRIVATE LIMITED is incorporated on this Third day of February Two thousand twenty-two under the Companies Act, 2013 (18 of 2013) and that the company is limited by shares.

The Corporate Identity Number of the company is U31900KA2022PTC157486.

The Permanent Account Number (PAN) of the company is AALCR8183K \*


The Tax Deduction and Collection Account Number (TAN) of the company is BLRR24107G \*

Given under my hand at Mysore this Fourth day of February Two thousand twenty-two.

  
Digital Signature Certificate  
PM MOHAN  
ASST. REGISTRAR OF COMPANIES  
For and on behalf of the Jurisdictional Registrar of Companies  
Registrar of Companies  
Central Registration Centre

**Disclaimer:** This certificate only evidences incorporation of the company on the basis of documents and declarations of the applicant(s). This certificate is neither a license nor permission to conduct business or solicit deposits or funds from public. Permission of sector regulator is necessary whenever required. Registration status and other details of the company can be verified on [www.mca.gov.in](http://www.mca.gov.in)

Mailing Address as per record available in Registrar of Companies office:  
RANEAL ADVANCED SYSTEMS PRIVATE LIMITED  
No. 64/1, 1st Floor, Sajjan Rao Circle, Kavi Lakshmintha Road, Bangalore,  
Bangalore, Karnataka, India, 560004



\* as issued by the Income Tax Department

