



**Parekh
Micro
Electronics
(India)
Limited**

Annual Report & Review, 1998-99



Parekh Micro Electronics (India) Ltd.

Board of Directors	Jaisukhlal J. Parekh	<i>Chairman</i>
	Atul J. Parekh	<i>Managing Director</i>
	C. M. Thirumurthy	<i>Deputy Managing Director</i>
	Gorsi A. Parekh (Smt.)	<i>Whole time Director</i>
	P. S. Mankad	<i>Director</i>
	K. S. Shah	<i>Director</i>
	A. A. Khan	<i>Nominee Director of IFCI</i>
Vice President (Finance)	Lalit P. Sanghvi	
Company Secretary	Rajesh K. Singh	
Auditors	J. T. Shah & Co. Chartered Accountants 201, Lalita Complex, Navrangpura, Ahmedabad.	
Bankers	State Bank of India Commercial Branch, Ahmedabad	
Registrar & Share Transfer Agents	System Support Services 209, Shivai Industrial Estate, Next to Parke-Davis, 89, Andheri Kurla Road, Sakinaka, Mumbai - 400 072	
Registered Office	201, Mansarovar S. V. Road, Santacruz (W), Mumbai - 400 054	
Corporate Office & Factory	Plot No. B-13, 13/1 & 14, GIDC Electronics Estate, Sector 25, Gandhinagar - 382 044 (Gujarat)	

Contents	Page No.
Message from the Chairman	1-2
Performance Review, 1998-99	3-8
Notice	9-17
Directors' Report	18-21
Auditors' Report	22-23
Balance Sheet	24
Profit & Loss Account	25
Schedules	26-36

7th Annual General Meeting
Date : 30th September, 1999
Day : Thursday
Time : 11:30 A.M.
Place : First Floor, Vishnu Prasad Desai Bhavan, V.L.Mehta Marg, J.V.P.D. Scheme, Vile Parle (West), Mumbai 400056



FINANCIAL HIGHLIGHTS

(Rs. in Lacs)

Particulars	1998-99	1997-98	1996-97	1995-96	1994-95
Gross Revenue					
- Domestic	812.73	964.51	737.25	898.74	574.51
- Export	1645.28	319.86	404.77	225.98	28.53
Gross Profit	542.55	262.67	319.13	247.50	129.02
Depreciation	125.09	68.05	64.78	37.24	8.01
Profit Before Tax	417.46	194.62	254.35	210.26	121.01
Taxes	45.00	19.50	33.00	---	---
Profit After Tax	372.46	175.12	221.35	210.26	121.01
CAPITAL EMPLOYED					
Share Capital	1000.00	1000.00	1000.00	1000.00	1000.00
Reserves & Surplus	2161.22	1921.44	1746.38	1600.03	1489.77
Borrowings	2779.20	2396.47	530.50	425.16	870.06
Earning Per Share (Rupees per Share)	3.72	1.75	2.21	2.10	1.21
Dividend per Share (Rupees per Share)	1.20	---	1.00	1.00	1.00
Net Worth per Share (Rupees per Share)	31.61	29.21	27.46	26.00	24.90



MESSAGE FROM THE CHAIRMAN

My Dear Shareholders,

Our shareholder family has patiently awaited beneficial returns from the Company. It has been a tough four years of steering the company in the right direction from where it can take a quantum leap. Notwithstanding the turbulence in the economy, the company continued to create strong business assets for the shareholders to reap the benefits in the not far off future. It goes without saying that in a short span of four years since inception of the first manufacturing base, your company has grown consistently at an average annual rate of almost 100% to touch Rs. 250 million of sales value today. This implies a growth of four times over the figure four years ago.

In fact, the company has achieved sales of over Rs. 240 million in the first five months of the current year, which augurs well for the future.

The only performance indicator that remains unachieved by the company is the real market valuation due to non listing of the company's stock on stock exchanges. This was largely due to depressed market conditions. However, the company is now geared up to list its stock on the major exchanges. Your company strongly believes that the faith reposed by its shareholders has been the motivating force for its rapid growth. We have striven relentlessly to keep the faith, and the results are before you to see. We promise to multiply these results in the coming years.

P-Mel is in a technology driven business arena. The electronics and computer industries are constantly evolving, and reinventing themselves at short intervals. I quote Moore's law in this regard, which says that electronic and computer systems double in complexity every eighteen months. Thus, we have to constantly work to keep our products and services portfolio updated with the world's leading technologies in order to retain our hard-won competitive advantage and market leadership. In this context, I am pleased to announce that the component plant established by us at a cost of Rs. 400 million attained operational status in the last quarter of 1998. This plant represents a major investment by the company, and is one that has started rendering excellent results.

The company continues to be the preferred choice of major high-technology multinational corporations for strategic partnerships in India. Our most recent partner is Tell Labs of the United States, which is a global leader in information technology, with annual sales in excess of US \$ 1.6 Billion. In fact, our technology base and brand image are so strong that even established Indian companies seek to tie up with us in strategic alliances. This is clear from our association with India Satcom Ltd., specialists in satellite communication networks and communications software.

I have already said that the electronics business is constantly evolving, and reinvents itself at regular intervals of time. Thus, a single product/ single business portfolio concept would lead to stagnation and loss of competitiveness. Your company is well aware of the dynamics of the electronics industry, and is thus constantly seeking for new opportunities. With its core competence the company has ventured into various new businesses by restructuring itself from materials to components and then to communications and software. Today your company has become a versatile supplier of products and services in areas ranging from software to satellite communications to wireless equipment and information technology solutions, and continues to grow exponentially in the core businesses of electronic materials and components.

India is still at a nascent stage in the exploitation of communications and information technologies. The convergence and integration of these technologies with broadcast technologies will be fundamental to our success as a nation in the coming century. The western world has already successfully exploited this convergence to produce amazing new value added products and services. P-Mel seeks to establish a strong presence and acquire major player status in these technologies and their applications in India, as we already possess the necessary infrastructure and talent. Thus, the company is already active in implementing projects in broadcast, GIS and GPS technologies.

The company expects that by the year 2001 a major portion of its annual revenues will accrue from the software, communications and information technology businesses.



We have already made an excellent beginning in this business with the winning of a major contract for design & development of Global Positioning System and Geographical Information System equipment and software to Nirma Ltd. Once this project is successfully implemented, your company will become one of the leading GIS and GPS software and solutions providers in India. The market potential in this segment in India is expected to be phenomenal.

Your company possesses excellent infrastructure to support all its business activities. We have a state of the art manufacturing plant for the production of electronic materials and components, admeasuring over 70,000 square feet, at Gandhinagar. We have further established service and customer support facilities at various locations to support our products, and have four regional offices to manage our regional marketing and service infrastructure. The company has also been selected as the marketing arm of VSNL for providing Internet sales and support. Your company today employs over 120 personnel of which over 80% are technically qualified.

The management of quality is an important aspect of attaining market leadership. In this regard, your company has won the ISO 9001 quality certification from Underwriters Laboratory, U.S.A., a leading quality certification institution. We have also been honoured by the State Bank of India for achieving this quality recognition with a cash award. It is worth noting that your company is one of the only three electronics materials (Thick Film Materials) companies worldwide that have been awarded the ISO 9001 credential, thus testifying to our abilities in the development, design and manufacture of high technology products through internal research efforts.

P-Mel's businesses are technology driven, and we have always recognised the need for in-house research and development. In the current year, the company has developed and added over 15 new electronic materials products to its portfolio. In component production, the company has developed chip resistors of the miniature 0603 size. It has also developed specialised military grade resistive arrays for high-reliability needs of its customers. The consumer sector was also addressed with the development of high-reliability, low cost mosquito repellent heaters. The company has also provided a wide variety of customised communications solutions to a range of customers. We have also recently developed timer circuits for mosquito repellent applications.

The key to the company's success is its people. Human Resource Development is thus a major area of attention for us. Our success here may be inferred from the very low employee turnover. We believe in providing a happy and comfortable work space for our people, and also encourage them to continuously update their knowledge and skills both formally and informally.

We may be a young company, but shall not use this excuse to shirk the responsibility of providing an appropriate structure for corporate governance. It has been our consistent objective since we were founded, to have the best possible management team for running the company. We reiterate our commitment to providing effective, efficient and able leadership to guide the company into what promises to be an extremely bright future, and pledge our determination to act as a strong, expert and independent Board of Directors who shall nurture the interests of all our shareholders who will continue to effectively monitor management operations and key corporate decisions. The Board of Directors and the company management continue to closely monitor, understand and satisfy shareholders' concerns with regard to all aspects of the company's operations.

In conclusion, I restate our commitment to become a leading provider of high technology products and services, not just in the Indian context, but globally. We have already made an excellent start in this direction, and hope to continue the rapid pace that we have set, well into the new millennium. I am sure we will be accepted as a global force in electronics, communications and computing technology in the years to come. I must also record here the grateful appreciation of the Board of Directors and the Management for the unstinting support we have received from our esteemed shareholders for our growth efforts. I am confident that we shall continue to enjoy your loyalty and support in the coming years as we move towards achieving our goals.

J. J. Parekh
Chairman

PERFORMANCE REVIEW, 1998-99

OVERVIEW

In the eighties it was Information Technology which revolutionized India's industrial growth. In the nineties it is the Telecommunication revolution that is sweeping the country. However, both Information Technology and Telecom have started converging, and what we are seeing today as the result of the merger is "Information Telecom". It has therefore become imperative for corporates not to look at Information Technology and Telecommunication as separate businesses but rather as the multiple facets of a single entity. The twenty first century is about to witness another convergence, namely that of Broadcasting with "Information Telecom". The beginning of the next century is therefore going to see "Information Through Broadcast Telecom" as a major business.

It is therefore imperative that any company which seeks to grow and is looking for a consistent growth path should look at these businesses holistically. In India, Information Technology is privatised, telecom is in the process of privatisation and Broadcasting is going to be privatised, with the consequent freeing of the air waves for transmission of voice, data and pictures.

In spite of this plethora of available opportunities, many entrants in these new areas have failed to achieve continuous and consistent growth, the major reason being a premature plunge into the business without understanding its dynamics.

The P-Mel management believes that it has all the right ingredients to pursue these new avenues step by step. It was accordingly decided by the management after extensive consultations and studies to give a combined thrust to each of these emerging technologies, i.e. Telecommunications, Information Technology and Broadcasting. The merging of these new technologies has made it mandatory to enter the common linkage business that is "Software Solutions".

As such, during 1999 P-Mel created three new business divisions, which are:

- **Broadcasting**
- **Software solutions**
- **Communications**

During the same period the company diversified its existing Information Technology division by broadbanding its current Modem and Internet business to enter the much higher technology area of Networking and System Integration. This task has become much easier, thanks to the association with one of the world's best known Information Technology companies, Tell Labs of the U.S.A. Tell Labs is not only known as a technology leader but has also been recognized as the second highest market valued company in its segment worldwide, as per Business Week.

The wireless division has been merged with the communication division to enhance operational and business synergies.

The P-Mel management believes that what they have been able to achieve in the electronic materials and component businesses through step by step gradual forward and backward growth would be the ideal strategy to deploy in these new business portfolios.

When we look back, four years ago P-Mel was purely an electronic materials company. It has gradually expanded its product portfolio, particularly in related areas through forward integration into components. Now that, it has already established its basic strengths in these areas, it believes that further forward integration into the systems business will not only support its existing Materials and components businesses but also would add enormous value to the company's bottom line. It is needless to say that the company's present healthy financial position is the result of strong and committed focus in its materials and components business in the areas of technology upgradation, productivity, low cost of operations, flexibility of products, strong market penetration and superior quality. Against this, most of the electronic materials and component industries within India is not faring well.



Now that the company is entering the new millennium it becomes imperative to look at us more deeply with respect to our next millenium's vision, goals, objectives, targets and businesses.

VISION

P-Mel's vision has always been focused, and that is to strive to become the most brilliant organization in each business we operate in with respect to quality, service, technology, HRD, research and development, optimization of resources and development of strong and sustainable infrastructure.

GOALS AND OBJECTIVES

The goals and objectives of the company are to constantly increase the shareholders' value through dynamic growth in sales and profitability. The objective along with the vision has charted a very clear path for the company to follow, which is, to create products and businesses through internal research and developmental and manufacturing efforts. The company is averse to the current shortsighted vision of many electronic corporations to engage in businesses as just distributors or traders. It may be a long and difficult path to follow but the company believes that it is the right path towards brilliancy and long-term sustainability.

INFRASTRUCTURE

In the last five years since the inception of its first manufacturing plant, the company has created a strong manufacturing, marketing and servicing infrastructure at an investment of Rs. 50.00 crores.

A manufacturing infrastructure to produce a wide range of electronic materials and components has been established on 70,000-sq.ft built-up area.

The infrastructure includes state of the art research and development facilities for materials and components.

The company has established a well-equipped system integration and design facility with an area of 10000 sq.ft to support its system integration and wireless businesses.

The company has established four regional marketing and support offices to cover the length and breadth of India at Bangalore, Mumbai, Delhi, and Baroda.

The company has established a strong and dedicated technology distributor network numbering 50 all across India to enhance its market penetration.

HUMAN RESOURCES DEVELOPMENT

P-Mel believes that its growth in this technology driven business has largely been due to the inherent talent of its employees. The professionals working with P-Mel are focused on the single objective of growing internally and externally in creativity. The company today employs more than 120 people, of which over 70% are qualified engineers or else possess postgraduate scientific qualifications. P-Mel has created a profound impression in the market place, with the cream of young technologists seeking to associate with the company. The average age of our young and dynamic team is under 30 years. This implies that the company has been able to attract young, skilled and energetic manpower from throughout India.

The HRD policies are formulated to provide utmost satisfaction to each individual member of P-Mel in the work place. We have several programs designed to create entrepreneurial skills in individual employees through skill development programs, creativity development programs, job rotation programs and self-development and self-discipline programs.

P-Mel believes that the company will grow if each member of our team grows as an individual.



P-MEL'S BUSINESSES

P-Mel has been climbing the ladders of technology step by step with coherence and consistency. The company has been continuously restructuring itself to become most efficient with respect to not only productivity and optimization of resources but also with respect to adopting newer product portfolios.

This step by step approach has produced strong results, which are visible from the improvements in the company's bottom line.

Today the company has six business divisions of which three have commenced this very year., as follows:

- **Software Solutions Business**
- **Broadcast Business**
- **Communications Business**
- **Information Technology Business**
- **Components Business**
- **Electronic Materials Business**

SOFTWARE SOLUTIONS BUSINESS GROUP

The software business is the latest business undertaking of P-Mel. This business is headed by Dr. N. R. Rajopadhaye, a doctorate in electronics. The Group has over 50 man years of experience in software development.

The group's main focus is in the area of GIS software and communications software. Both these activities will not only directly enhance additional business revenues but would also support the other related businesses of P-Mel, i.e. Communications and Navigational Aids.

P-Mel has been awarded its first commercial design and development project by Nirma Ltd. for the development and design of GIS and GPS based fleet management. Upon successful completion of this project, the company believes that it will become the first Indian company to provide complete solutions in the area of GIS and GPS integration through wireless communication.

The company is presently evaluating partnerships with some U.S.A based software corporations to enhance its technological expertise and provide software and solutions worldwide.

BROADCAST BUSINESS GROUP

The broadcast business is the second new business ventured into by the company. The Group is headed by Mr. C. M. Thirumurthy, a technologist with wide experience in the Broadcast business. Over and above the total responsibilities of system businesses as Dy. Managing Director, the additional responsibility of this division is closely looked after by him, as the growth potential in this segment is enormous.

The company has already signed Letter of Understanding with ADC Communication, U.S.A for partnering and providing broadcast products and solutions in India. ADC Communications has not only recognized P-Mel as their frontline partner in India but has also envisaged interest in financial participation in the Letter of Understanding.

The broadcast business will cover areas like TV transmission, FM transmission, and audio/video products. However, both the telecom and broadcast business areas have areas of overlap, and many applications like news gathering, up-linking earth stations etc. are considered as both telecom and broadcast products.

From the technological point of view, digital MPEG-II, MMDS, high Power FM transmitters etc. are dominating the world market place which are yet to find a place in India. Other technologies like Cable Modems, Satellite based Internet areas are also fast emerging.



P-Mel believes with the association of ADC Communication and other world recognized broadcast technology companies, it will become a major player in this market segment.

COMMUNICATION BUSINESS GROUP

P-Mel has made some inroads into the wireless communication business, with strong results. The growth in the wireless communication business has been over 100% since its commencement in 1997. This provided significant reason to venture into the whole gamut of communication products.

The significant enhancement of the product portfolio in this segment happened during the current year with strengthening of cooperation with ICOM of Japan and signing of a Letter of Understanding with Hagnenuk GmbH of Germany.

Further Denro of U.S.A (a division of the US\$ 4.0 billion Litton Industries) has established a business relationship with us by making P-Mel as its frontline partner for navigational, communication and defence products.

Today this group which is headed by Mr. Uday Desai along with Mr. S. J. Dhruv, who are heading the communications technology development effort, provides significant growth potential and promise.

P-Mel is now fully geared up to face the various challenges posed in this business in areas such as

- **Wireless communication products**
- **Navigational aids products**
- **Telecommunications products**
- **Wireless telemetry and SCADA**

P-Mel is currently pursuing a business alliance with Roctest of Canada and Geomation of U.S.A for telemetry and SCADA products, both of whom have shown interest in a long term business association.

INFORMATION TECHNOLOGY BUSINESS GROUP

It was during 1997 that P-Mel took its first step in the direction of pursuing IT business through the launch of P-Mel brand modems. During the same year VSNL showed its appreciation of P-Mel's abilities in information technology by offering a proposition to P-Mel to associate with it for becoming its nation wide distributor for Internet services.

Both these businesses created a significant fund of operating knowledge in the IT Hardware and Internet segments of the IT business.

Through this initial experience of IT related businesses, today P-Mel is much better placed to understand and pursue the high technology driven IT business with much more significant value addition.

The group head, Mr. Nitin Deodhar , a technologist with vast experience in communications, networking and system engineering, believes that value addition in the IT business in today's scenario will not be achieved through just product sales but rather through networking and system integration.

His IT division is now fully equipped to undertake total solution based networking and integration jobs.

The division received a tremendous boost when Tell Labs of the U.S.A. selected P-Mel as its networking and integration partner. The significance of Tell Labs was obvious as it enjoys the reputation of being a superior product and solutions provider across the globe. Tell Labs is also a preferred choice of investors worldwide, which is evident from the fact that it was the second highest market valued Telecom and IT company in the world as per Business Week.

P-Mel envisages strong business growth in this business group owing to the alliance with Tell Labs.



COMPONENT BUSINESS GROUP

Today, P-Mel's star performer is the component business. The electronic component business evolved as a forward integration from P-Mel's electronic materials business. Headed by Dr. (Ms.) Nitya Vittal, the division has performed exceptionally well even in the present scenario of economic turmoil.

The component division investment has been by far the highest among all the businesses of P-Mel. The abilities of in-house research and development have made it possible for P-Mel to achieve strong results from this business group.

In the component business, P-Mel is today's India's only multi-product manufacturing facility, with the capability of producing a wide range of components, which include

- **Chip Resistors**
- **Resistor Networks**
- **Resistive Arrays**
- **Hybrid Micro Circuits**
- **PFT Substrates**
- **Hybrid heating elements**

Over and above these products, the company possesses the ability to undertake job-work assignments in the area of (1) Trimming (2) Plating (3) Printing (4) Firing (5) Design and development

P-Mel's overriding advantage in the components business is that it has the complete technology for each component area. Further, P-Mel's is the largest capacity plant in India, so much so that the combined capacities of all operational HMC producers within the country is only marginally higher than that of P-Mel.

ELECTRONIC MATERIALS BUSINESS GROUP

P-Mel's entry into the electronics business was on account of its expertise in the core technologies of *electronic materials*. The Company established its first project for the manufacture of electronic materials in 1994.

Till then, no one in India had dreamt of entering this technology, so basic and vital to the electronics industry. However, P-Mel took up the challenge, and entered the complex business of manufacture of electronic materials.

The initial technology for this venture was supplied to P-Mel by its technical collaborator, E. I. Du Pont de Nemours & Co., U. S. A. The technology understanding for the project was for only 10 products. This has now been enhanced to over 150 products as a result of strong in-house research and development efforts.

It would not be exaggerating to say that today P-Mel has completely eliminated any dependency on its technical collaborator, and that the entire P-Mel electronic materials range, has found enormous market acceptance and support from its customers. P-Mel is proud to say that it is the only facility in India producing and supplying these products. It has a market share of over 70%, and has created a technological and product reputation to rival that of its former partner in the world market.

The electronic materials business is considered to be even more technologically complex than that of silicon wafer production, since it is the product of the convergence of over five engineering and scientific disciplines. P-Mel through its strong Research & Development team of over 15 scientists and engineers has been continually upgrading its products and developing newer ones to satisfy the needs of its customers. P-Mel's commitment to quality is also underscored by its being awarded the prestigious ISO 9001 quality certification, something that only two other companies globally in the electronics materials business have been able to achieve. This reflects P-Mel's strong design, development and quality management abilities. The Group has also received a cash award from the State Bank of India for its quality achievements.