



MIC Electronics Ltd.

Sector : LED Display & Lighting

CMP : 31.6 Rating : Buy Target : 51

31-Jan-11 Initiating Coverage

MIC Electronics Ltd (MIC) is the largest player in the domestic Light Emitting Diodes (LED) based display products. These products find their application as videowalls and perimeter displays in stadiums, digital billboards, passenger information displays, ticker boards and interactive displays. It has also entered the LED lighting segment recently.

Key Data

Face Value (INR)	2
Shares Outstanding (Mn)	103
Market Cap (INR Mn)	3228
52 Week High/Low	52/28
Average Quarterly Volume (mn)	39
Nifty	5512
Bloomberg Code	MICE IN EQ
Year End	June

Investment Rationale:

Expected increase in LED light usage in India to drive MIC's lighting revenues

Government's initiatives such as supplying LED-based solar lanterns at subsidized rates in rural areas and promoting energy efficiency projects in street & industrial lighting to expand the LED lighting usage in India. Further, MIC's proactive steps such as tie-ups with Hyperion Green Energy, IOC and other organisations make us expect LED lighting segment to be a major revenue driver for the company.

Increased use of LEDs by Indian Railways to benefit MIC

As of now, MIC is the only LED company approved by Research Designs and Standards Organisation (RDSO) for manufacturing passenger information display boards and coach lighting solutions in railways. Thus we expect MIC to have first mover advantage over competition. The potential market size from these two projects is estimated over INR 30 bn spread over the next few years.

Revival in LED display market together with its technological advances is expected to drive display volumes

Global market for signs & displays segment is expected to grow at 60% CAGR to reach USD 10.5 bn by 2014 from USD 1 bn in 2009. Replacing of static or vinyl billboards to digital billboards in the US and other countries, increasing demand for live coverage of corporate events, sports and weddings should drive MIC's LED display segment.

Expanding capacities to meet the increasing demand from LED segment

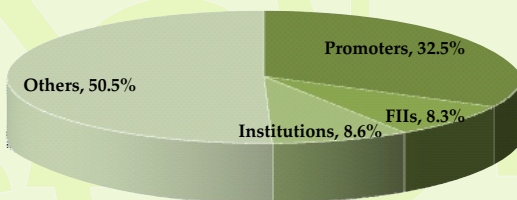
MIC had recently expanded the Charlapally unit at a cost of INR 200 mn. The total built-up area now stands at 1 lac sq. ft which can generate INR 800-1000 mn revenue. It is now planning to invest c. INR 1850 mn in setting up a greenfield facility in Hyderabad for manufacturing LED lighting products. At 100% capacity utilisation, this facility is estimated to generate a turnover of INR 12 bn.

(INR mn)

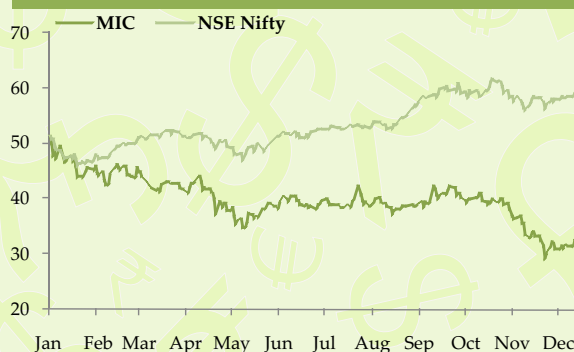
Key Financials	FY10	FY11E	FY12E	FY13E
Net Sales	2785	3410	4244	5763
Growth (%)	-5.7	22.4	24.5	35.8
EBITDA	744	921	1103	1441
EBITDA margins (%)	26.7	27.0	26.0	25.0
Adj Net Profit	552	634	739	880
Net Profit margins (%)	19.8	18.6	17.4	15.3
Adj. EPS	5.4	6.2	7.2	8.6

Key Ratio	FY10	FY11E	FY12E	FY13E
P/E (x)	5.9	5.1	4.4	3.7
DE (x)	0.2	0.1	0.3	0.3
ROCE (%)	16.5	17.0	16.2	17.0
ROE (%)	15.0	14.7	14.8	15.3
P/BV (x)	0.8	0.7	0.6	0.5

Shareholding Pattern



Relative Price Performance



Source: Unicon Research

Outlook & Valuation :

The stock is currently trading at INR 31.6 which is near to 52-week low of INR 28. Going forward, as the lighting segment is poised for a strong growth, we expect the positive impact of the same shall be reflected on MIC, thus providing increasing visibility among investors.

At CMP of INR 31.6, the stock currently trades at 4.4x our FY12e EPS. Based on relative valuation method we have arrived at a target price of INR 51 with an upside potential of 62% in the 12-18 months period. Thus we recommend a Buy on the stock.

CONTENTS

Particulars	Page
Background	3
Management Profile	4
Industry Overview	5
Investment Rationale	9
Concerns	14
Financial Analysis	15
Peer Comparison	16
Valuation & Outlook	17
Financial Statements	18

BACKGROUND

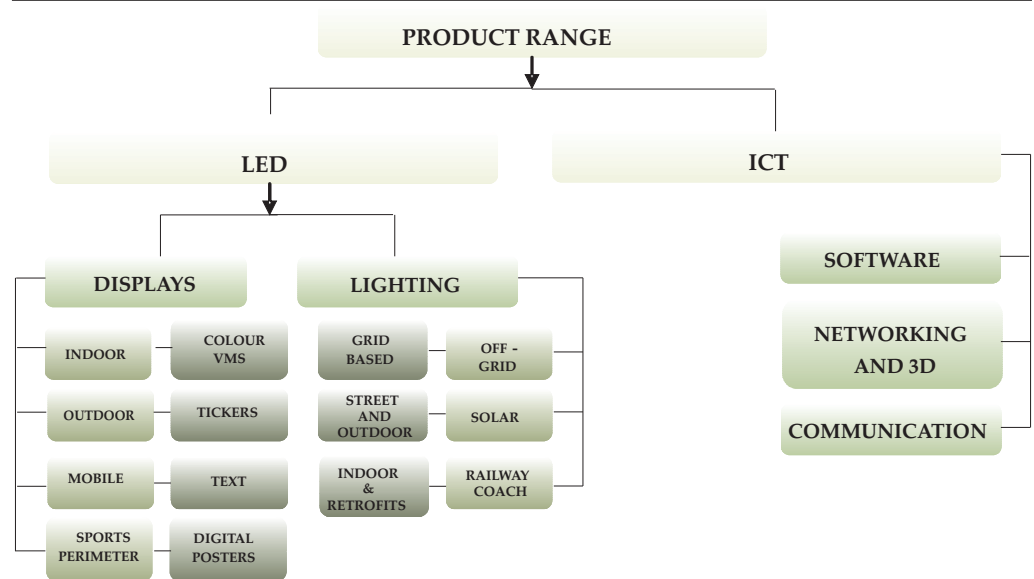
Started in 1985, MIC Electronics Ltd (MIC) is a Hyderabad based leading LED player having presence in both video display screens and lighting based products. In fact, MIC is the largest and the only player in India with presence in both indoor and outdoor LED display segments. For MIC, Indian Railways is the largest customer with ~20% of FY10 total revenues. Its major competitor is Barco N.V., the global leader for LED-based display products.

MIC sources LEDs from global suppliers and develops LED-based display boards and lighting products for different end-user sectors. MIC's display portfolio ranges from 90 inch to 512 inch (diagonal distance) covering digital posters, videowalls, tickers, digital billboards, LED TV, signage and perimeter boards. In the lighting segment, MIC has developed more than 70 LED based lighting products which include solar lantern, street lights, home lights, strip lights, LED tube lights and other luminary.

MIC has two manufacturing facilities, one at Hyderabad a fully automatic export oriented plant and the other one located at Roorke. Other than international tie-ups with the end-user companies in different segments, MIC also has two subsidiaries focussed to market its products in North American and Australian markets.

MIC has a strong pedigree of technical know-how and has filed 5 applications for patents, 22 for trademarks, 20 for design registrations and 3 for copy rights. Its R&D department consists of 160-member team and is approved by the Department of Scientific and Industrial Research (DSIR), Govt. of India.

Product Range



Source: Company

LED Display

On a consolidated basis, displays segment accounts for ~71% of FY10 revenue. MIC's revenue in this segment is generated by sale and supplying display boards such as mobile displays (LED screen mounted on truck) on rental basis. These displays find application in stadiums, corporate board rooms, out-of-home advertisement venues such as on highways and railway stations, variable signage displays (used for traffic congestion, diversions and toll information), weddings and religious places. MIC's domestic customers include Indian Railways, Delhi Municipal Corp., Delhi Metro and many corporate clients.

LED Lighting

For FY10, LED lighting segment contributed for 3.3% of consolidated revenues. Though this segment's contribution was miniscular in the past, we expect it would be a major revenue driver for the company henceforth. MIC's customers include Maruti Suzuki, Indian Oil, Taj Hotels, TVS Motor Company, P&G, General Electric and many others.

ICT segment

MIC is also into infotech services such as Element Management System and Network Management System for telecom operators and railways. This division has contributed for ~25% of FY10 revenues. MIC has recently empanelled as a System Integrator (SI) under the Govt. Of India's Restructured-Accelerated Power Development and Reform Program (R-APDRP) for which it is keen on project biddings. R-APDRP aims to create a system for the methodical collection of meter data (real-time) and adopt IT in the areas of energy billing and accounting. The government allocated INR 500 bn for this program, of which INR 100 bn is for the IT segment.

Other than R-APDRP, MIC is not keen on expanding this segment of business as it wants to focus on LED market. As part of this strategy, MIC had sold its subsidiary Infostep Inc., USA for a cash consideration of USD 3 mn in Jan'11. It is now left with the step-down subsidiary (now direct subsidiary) Infostep India Private Ltd.

MANAGEMENT PROFILE

MIC is promoted by Dr. M. Venkata Ramana Rao, a first generation entrepreneur, who along with L.N. Malleswara Rao have strong technical know-how of the LED industry.

Dr. M. Venkata Ramana Rao –MD & CEO

Dr. Ramana Rao has over 25 years of rich experience in the field of embedded systems, parallel processing, multilingual software & Information Communication Technologies (ICT) industry in product design & development, marketing and business development. Under his leadership, MIC has won various awards for excellence like best R&D award in Electronic sector in 2002 from DSIR, Ministry of Science & Technology, Govt. of India. Dr. Ramana Rao, is also serving as the President of LED Product Manufacturers' Association (LEDMA).

Dr. Ramana Rao holds a Bachelor of Engineering (Electrical & Electronics Engineering) from Andhra University, Master of Engineering (Applied Electronics) from PSG College of Technology & Ph.D (Electronics & Communication Engineering) from JNTU.

L.N. Malleswara Rao – Executive Director

Mr. L.N. Malleswara Rao joined MIC in 1994 and is on board of the company since 1995 and has contributed to the operations of the company in several areas such as design, development and execution of LED Displays specifically in up gradation of mechanical designs for True Colour LED Video Walls and other LED lighting applications. He is a Bachelor of Technology (Mech. Engg.) from JNTU.

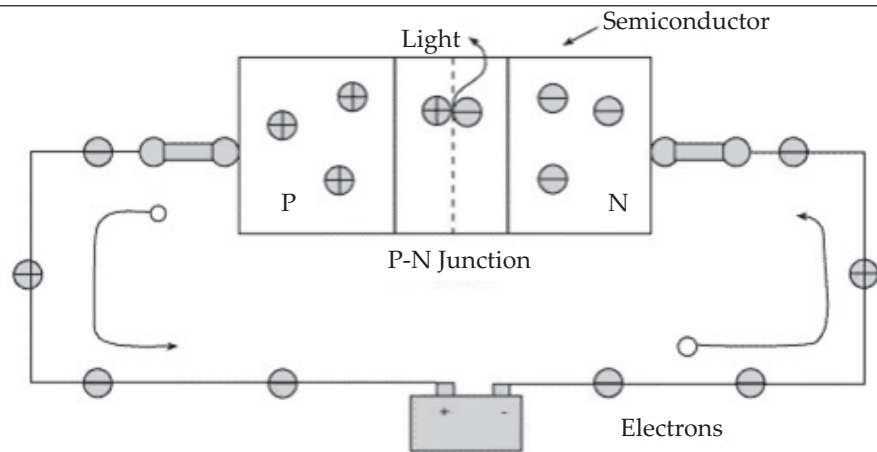
INDUSTRY OVERVIEW

About LEDMA

LEDMA was formed in August 2010 and aims to work for the well being of the Indian LED industry concurrent with its efforts for ensuring quality product delivery, compliance with international standards and the success of the industry in the long run. LEDMA is trying to persuade the Government to get tax incentives and subsidies which would help in accelerating the conversion of conventional luminaries to LEDs. LEDMA is of the view that the apparent loss of the revenue will be more than offset for the Government in terms of the energy savings and avoidance of capital costs for generating equivalent power.

LED Industry overview

LEDs are semi-conductor diodes, for which when a forward voltage is applied energy is released in the form of light at the junction where the electrons meet the holes.



Source: Company, LED Expo

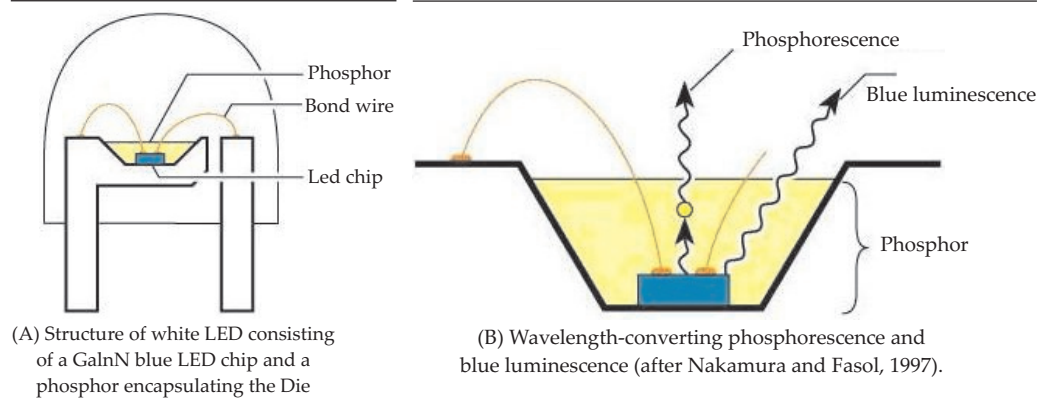
Some advantages of LED over Compact Fluorescent Light (CFL) and Incandescent Light (ICL)

- The operational life of LED is over 50,000 hours, where as it is 1000 and 6000 hours in the case of CFL and ICL respectively.
- LED uses solid state (semi-conductor) as a lighting source as against a filament in ICL and CFL, which makes LED resistant to heat, cold and shock.
- With advancing LED technologies, efficacy (Lumens/watt) of a LED touched 180 lumens in labs. Though this may take another 6-8 months for commercial production, it is certainly above the 60 and 10 lumens for CFL and ICL respectively.
- Efficiency of an LED is very high which is >80%, where as it is only 20% for ICL. Efficiency is the conversion of energy used for producing light. In LED, 80% of the energy consumed produces light and only 20% is lost as heat energy.
- LEDs are unidirectional (120 degrees) which means, the LED light can be directed to a specific location without the use of external reflectors. ICL and CFL are omnidirectional (360 degrees) and so a large chunk of the light produced does not reach the target area.
- LEDs do not contain toxic chemicals used in CFLs which make them ecologically friendly.

Disadvantages

- Currently the initial cost of a LED is more than its ICL and CFL alternatives.
- LED performance is largely dependent on the ambient temperature of the operating environment. Over-driving the LED in high temperature may lead to device failure. Adequate heat sinking (through additional device) is required to maintain long life with high powered LEDs.

White LED

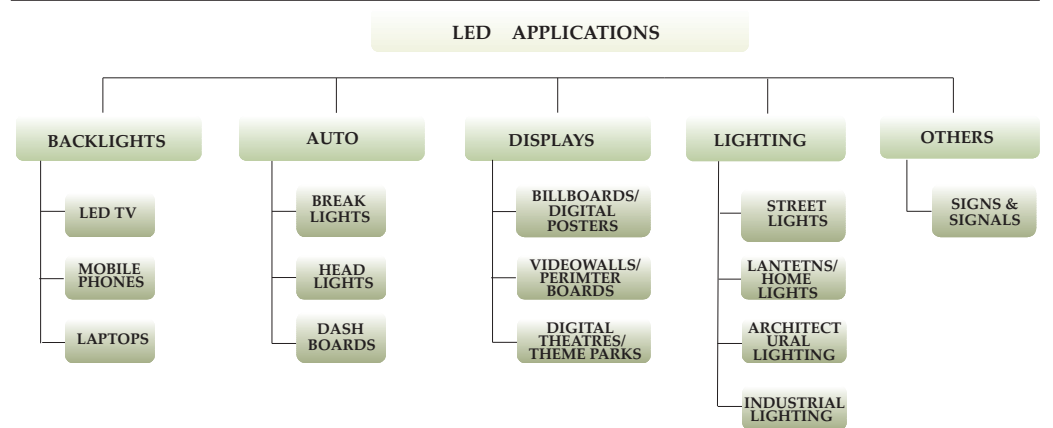


Source: www.lightemittingdiodes.org

In the 90s, usage of LEDs had taken a new turn with the advent of high brightness blue LEDs, invented by Dr Shuji Nakamura of Nichia Corp. With this new blue LED, the whole industry got a new life as it aided in the invention of white LEDs used for lighting purpose. Further, this also helped the LED user industry to develop True Colour LED displays which could produce billions of colours with the combination of the three primary colours i.e. Red-Green-Blue.

Today, LEDs are manufactured by world renowned manufacturers such as Nichia, CREE and Philips. MIC uses LEDs manufactured by Nichia in its displays and lighting products. Though there are many Chinese manufacturers too in this industry who can provide at a fraction of the cost of renowned players. Industry insiders question their performance, especially in the display products where the costs run into millions of rupees.

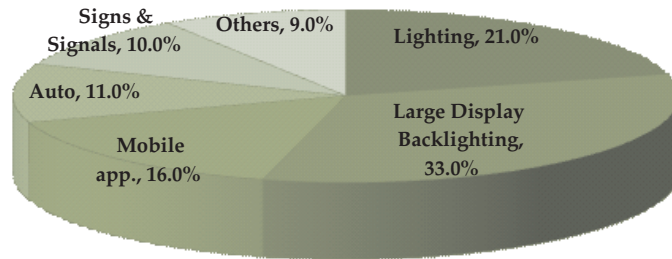
LED Application



Source: Unicon Research

LEDs are already in use for backlighting LED televisions, mobile phones and dashboards in automobiles. There is increasing usage for signalling and signage, break and head lighting for automobiles, out-of-home (OOH) advertisements such as billboards and posters, and videowalls and perimeter displays in stadiums. Global competition in these sectors is more or less organised due to large investments and requirement of embedded technology.

HB LED market (2010: USD 8.6 bn)



Source: LEDinside, (HB- High Brightness)

However, in the general lighting segment, where white LEDs are used, the competition is intense with thousands of companies operating across the globe. In India alone, LED general lighting segment has more than 500 companies who are fighting to get a piece of USD 50 mn market. Severe competition in this segment is due to lack of national quality standards, certifications and the low cap-ex cost for setting up a shop.

Even though, competition is very high in general lighting segment, the potential market size is a sweetener. As per a LED inside report, the global lighting market in 2009 was estimated at USD 73 bn of which HB LED lighting was valued under USD 2 bn. The low penetration of LED lighting in the overall lighting segment is largely due to the high initial cost. A closer look at the cost benefit analysis done by Bureau of Energy Efficiency (BEE) on different bulbs, would throw more details on the reasons for low penetrations.

Cost benefit analysis of using different bulbs

Device	Incandescent	CFL	LED
Avg. Efficacy (lumen/W)	10	60	70
Watt to match	60	12-14	9
Rated Life (in hrs)	1000	6000	50000
Energy use over device life (Kwh)	60	62	442.9
Initial Cost (INR)	15	125	1000
Life Cycle energy use cost (INR)	239.8	248	1771.4
No of lighting device to match LED life	50	8	1
Total life cycle cost to match LED life (INR)	12742	3108	2771
Pay back w.r.t. Incandescent		1.2 years	2.2 years

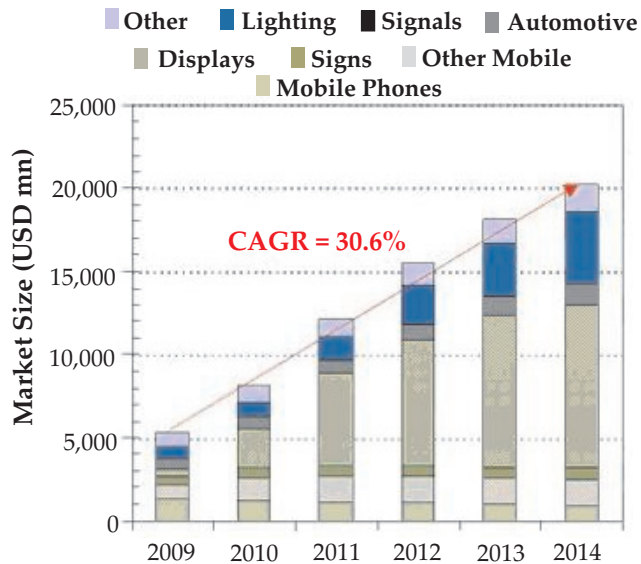
Source: BEE

From the above table, it can be inferred that LED lost out to CFL largely due to the high initial cost of LED luminaries. However, with fast advancing LED technology, the cost benefit ratio would favour LEDs in the very near future. CREE in 1H2010 had come out with a white LED which could produce 180 lumens/Watt. Increasing lumens/watt, will reduce the number of LED requirement per LED light, thus reducing the overall cost of the product. Already, there are LEDs in commercial production with an efficacy of 110-120 lumens/Watt. By increasing the LED efficacy, manufacturers could control the prices in the last 1 year and any fall in LED prices would benefit the user companies such as MIC.

Outlook

As per the latest Strategies Unlimited report, global HB LED market size is expected to witness a CAGR of 30.6% during the year 2009-14 and reach USD 20 bn. During this period, the lighting and the displays segments are expected to grow at the highest pace, where as usage in mobile phones and signs is expected to grow at a low single digit rate.

HB LED Market Forecast 2009-2014



Source: LED Magazine, Strategies Unlimited

In the Indian market, we expect the LED lighting industry to have the national technical standards, testing protocols and accredited laboratories within the next one-two years. Through LEDMA, LED manufacturers are pursuing the Government to grant appropriate incentives and tax benefits for the manufacturers. Further, push in the government schemes such as providing solar lanterns for rural population and energy efficiency projects such as converting conventional street lights to LEDs should help the LED market to grow through this decade. A detailed view on each of the LED segments is covered in the following investment rationale section.

INVESTMENT RATIONALE

Expected increase in LED light usage in India to drive MIC’s Lighting revenues

Globally, LED lighting market is expected to cross USD 4.5 bn by 2014 with an estimated 48% CAGR for the year 2009-14 (Source: Strategies Unlimited). In India, LED light market is expected to witness a 41.5% CAGR to reach INR 18.5 bn by 2015 from INR 2.3 bn in 2009 (Source: Frost & Sullivan).

Whether it is globally or in India, penetration of LED lights is estimated at less than one percent. Of the estimated 1,300 mn street lights installed globally, LED street lights account for only 870,000 units.

In India ~18% of the total electricity is consumed for lighting. By switching to LED based lights instead of incandescent bulbs or metal halides, one can save ~65% of energy consumption which is equivalent to India’s deficit during the peak hours i.e. ~12%. Further, most of this lighting happens during the peak hours when the power costs are on a higher side. In rupee terms, by shifting to LED lighting, one can reduce the power costs by 80-85%. Though the calculation looks simple on the paper, higher initial costs, advancing LED technologies, lack of large manufacturing base, spurious products and yet to be published specifications and standards for LED lighting are some of the reasons for negligible penetration.

However, things look optimistic in the future as the growth initiatives are already set by the Government through different agencies such as Ministry of New and Renewable Energy (MNRE) and Energy Efficiency Services Ltd. (EESL) are taking off smoothly.

Energy Efficiency market

The overall size of energy efficiency market is estimated at INR 740 bn, of which the lighting segment is projected at 40% or INR 300 bn. EESL, a JV of Ministry of Power PSUs, came into existence in December 2009 for promoting the concept of performance contracting in energy efficiency. EESL is the nodal agency which is doing the bidding process for converting 90,000 conventional street lights to LEDs in the city of Ludhiana. The estimated cost of this project is INR 660 mn. The Energy Service Company (ESCO) or the successful bidder will need to bear the total cost of the project in replacing the street lights and maintenance of the project for the first seven years. In return, the ESCO will receive a major chunk of the expected energy savings from this project for the next 10 years. Similar projects for street lighting are expected to be taken up by EESL in the next few years covering 23 municipalities across the country. MIC’s role will be to tie-up with ESCO operators for supplying its lighting products.

MNRE's Solar Mission

Solar based MNRE market

Application	Total mkt size volumes (in mn)	Est. mkt size (INR mn)
LED lantern	5	8,000
LED home lights	1	3,200
LED off-grid street lights	1	20,000
Total estimated market size		31,200

Source: Company

MNRE's national programmes which include Jawaharlal Nehru National Solar Mission (JNNSM), are promoting usage of solar based off-grid applications such as street lights, home lights and lanterns in rural areas at subsidized rates. It has set a target of 2000MW equivalent off-grid solar based application usage by 2022. As the cost of solar panel is very expensive, a low watt requirement by LED lights (as compared to CFL) which can be supported by smaller solar panels would help in reducing the overall costs. Further, as LED lights and solar panels have a life span of more than 10 years, they form the best combination in providing cost effective off-grid solutions.

Other programmes supporting Lanterns

Further to MNRE's, there is Lighting a Billion Lives (LaBL) initiative from The Energy and Resources Institute (TERI), a not-for-profit organisation. TERI has a target reach of 65 mn solar lanterns in India by 2022 while touching the lives of 300 mn people. Parallel to TERI's initiative, 'Lighting Africa' is a joint IFC and World Bank program targeting the rural population of Africa. It is estimated that ~500 mn people in Africa live without electricity and depend on costly inefficient kerosene. This initiative is focused on educating these people about the benefits of using solar-based lighting to kerosene lamps. Recently, MIC got the approval for four of its lighting products and is expecting to start marketing in Africa from FY12 onwards. As per a recent study by 'Lighting Africa', sales volumes can witness a 40-50% CAGR or 13 mn solar portable lights by year 2015.

Potential Corporate lighting market

Increasingly, many large companies are showing interest in shifting their lighting requirements to LEDs. The shift can be a part of corporate social responsibility (CSR) or for energy savings. As per MIC, the potential market size of PSUs, corporate and campus is estimated at 80 lac units or INR 76 bn. MIC has already got trial orders from companies such as Maruti and TVS Motors.

MIC Initiatives

To tap the demand for street lighting, MIC had tied up with Hyperion Green Energy (HGE), wherein MIC supplies its street lights to the latter for executing projects. HGE is an ESCO company, which has secured contracts for converting and maintaining a total of 29,000 street lights in the cities of Rajamundry and Guntur. The work in Rajamundry is expected to be completed in the next 2-3 months while the work in Guntur, A.P. is yet to start.

MIC has tied up with Indian Oil Corporation (IOC) for the distribution of solar-based LED lanterns through the latter 17,000 plus nationwide outlets. At present, through this tie-up, MIC is able to distribute in north eastern states. Other than LED lanterns, IOC throws a larger market for MIC in terms of lighting its production facilities and distribution network.

MIC has also tied-up with Beltron Telecom Green Energy Systems Ltd (BTGESL), to supply 3.3 lac solar-based LED lanterns in Bihar during FY11.

Increased use of LED lights and displays in Indian Railways to benefit MIC

Railway lighting

Coach LED lighting in Indian railways is an INR 25 bn opportunity (existing and new coaches) spread over the next five to ten years. In addition, another INR 2.7 bn potential from ancillary applications such as emergency lighting (MIC has ~50% market share), hand signal, signal lamps and 2.5 Kva invertors.

Indian Railways Lighting Potential

Application	Volumes (in '000)	Value (INR Mn)
Coach Lighting	100	25,000
Emergency Lighting	200	700
Hand Signal	100	100
Signal Lamps	90	1,500
2.5 Kva Invertor	10	450
Total Lighting Opportunity		27,750

Source: Company

By switching to LED lights in coaches, Indian Railways could witness annual savings of ~INR 1000 mn just from reduced coach power consumption. Further, if one considers savings on maintenance (LEDs require minimal maintenance) and light replacement expenses, the payback period should come down drastically. MIC has estimated a total savings of INR 1 mn per coach spread over a period of 15 years. On 50000 coaches, the estimated savings could be as high as INR 50 bn. With these advantages, we expect LED lighting to take a lead in coach lighting in the next few years.

Power Saving with LEDs in Coach Lighting

Name of the Light	Existing Lighting			Proposed LED Lighting		
	No. of Lights per coach	Power (W) per Light	Total Power (W)	No. of LEDs per Light	Power (W) per Light	Total Power (W)
Mirror Light	2	13	26	12	8	16
Door way Light	6	26	156	18	12	72
Fluorescent tube light	16	40	640	36	24	384
Embarkation Light	4	13	52	12	8	32
Night Light	7	25	175	1	1	7
Reading Light	48	10	480	1	2	96
Total power consumption			1,529			607
Power Savings						60.3%

Source: Company

Railway coach lighting has just started and MIC is the only company to get the RDSO approval in this segment. It has already supplied trial orders for 13 coaches running between Varanasi and Delhi. Other potential opportunities for MIC from Indian Railways could be lighting platforms, yards and colonies with LED bulbs.

Additionally, there is also a plan by Indian Railways to put up True Colour information display boards across 560 stations in the next few years. As per MIC's 2009 Annual Report, the potential market size of this opportunity could be INR 7 bn. To cater to information display board market, MIC had last year introduced a unique Train Passenger Information Display System (TPIS) using Satellite Imaging for Rail Navigation (SIMRAN). It co-ordinates train arrival/departure information from standard NTES, TTCS, third-party servers and Real-Time Train Info Server of Indian Railways. It took 14 months for MIC to complete this task. MIC states that real-time passenger boards are already displayed at 30 railway stations.

The competition is yet to have a break-through in this product segment, which is why, as of today, MIC is the only company approved by RDSO for manufacturing passenger information display boards for Indian Railways. This unique "feather on the cap" can benefit MIC enormously in securing these display board orders.

At the end of December 2010, the order book from Indian Railways stood at INR 300mn, which is expected to be completed in the next 3-months period. In all, we estimate that the revenue from Indian Railways may cross INR 1000 mn in FY11, & will contribute ~30% of the total revenues.

Revival in LED display market together with its technological advances is expected to drive display volumes

After two years of lull period, according to Strategies Unlimited's estimates, the global market for signs & displays segment is expected to grow at 60% CAGR to reach USD 10.5 bn by 2014 from USD 1 bn in 2009. A closer look at the global opportunities and MIC's efforts to tap these markets may help us understand the potential in the LED display segment.

Billboards

Billboards are advertising structures consisting of panels on which advertising copy is displaced. These are located on highways, traffic arteries and city streets. Generally, in a static or vinyl billboard, the advertising company sells billboard space to advertisers for duration of one to twelve months. However, in the digital billboards which are made of LEDs, the advertising company displays the digital advertising copy from different advertisers as a slide show, moving each advertisement every 6-8 seconds. The potential revenues in digital billboards are 6-10 times as much revenue as static boards can fetch.

Replacement of static billboards with the digital ones is a big opportunity for MIC. Out of ~4.5 lac billboards in the US, there are only 2,000 which are digitalised. Even if 10% of these billboards are to be digitalised in the next few years, the market size we are talking of is USD 10 bn. It has developed a global digital billboard solution (GLOBIX) which facilitates in optimising the utilisation of advertising space. MIC has applied for a patent for GLOBIX.

For the US billboard market, MIC has a tie-up with Lamar Advertising Company (LAC), to provide end-to-end display screen solutions. LAC is the largest outdoor advertising company in the US with a total inventory of 1.4 lac billboards. Back in India, digital billboards market hold a lot of potential as we still do not have many around while there are ~1.5 lac conventional billboards in India.

MIC Electronics Ltd.

Videowalls & perimeter boards in stadiums

There is an increasing demand for perimeter boards and videowalls from stadiums and sports organisations both in terms of sales and rentals. MIC fetched a total rental of INR 85 mn from the Common Wealth Games events for supplying 19 display boards. Further, there are opportunities from the 2011 Cricket World Cup and the IPL matches. Together, in these two formats 143 matches are expected to be played in 2011, spreading over 4-5 months.

On the global front, MIC had formed a JV with Latin America Futbol Corporation for marketing LED based perimeter boards and video displays in sports stadiums across America and Europe.

In the next two to three years, MIC looks forward to generate at least 10% of its revenues from exports largely from the display segment. We expect, the target that MIC has set can be achieved by looking at the numerous tie-ups that it has with leading international players covering different display segments.

Other display opportunities

There is also a growing inclination for live coverage of events such as weddings, musical concerts, election campaigning which in turn are increasing demand for LED displays on rental basis.

MIC is also exploring other mass entertainment applications in the country such as for theatres and theme parks. Recently, MIC has constructed a 3,500 sq. ft. LED screen for Nautanki Mahal. This screen consumed 6 million LEDs and has MIC's customized LED driver and embedded technology to create virtual background screens within seconds, resulting in the world's first cinematic theatrical experience. Nautanki Mahal is an 848 seat theatre for concerts and plays, located at Kingdom of Dreams, Gurgaon.

MIC's Technology

In India, MIC is the only display player to offer 'design to display' capabilities in True Colour LED Video Displays. MIC has an in-house R&D team which has developed the 'Scan+' technology for enhancing moving content quality. It has recently added India's first 102 inches 4mm True LED TV, which finds application in both indoor and outdoor. Further, it is now directing its efforts to develop a 3D True LED TV using cutting edge technologies such as auto stereoscope as well as active and passive polarised glasses. Proactive initiatives such as these would make it as one of the leading global player in a growing display market. MIC's low cost structure as compared to the global peers would also help it in bidding at competitive rates.

Expanding capacities to meet the increasing demand from LED displays and lighting segments

With increasing demand for its LED displays and lighting, MIC had recently expanded the Charlapally unit at a cost of INR 200 mn. The total built-up area now stands at 1 lac sq. ft and can generate INR 800-1000 mn revenue from this facility. This expansion will enhance the production facilities of both display and lighting products. Though this plant is currently having single shift, MIC's management is open for a second shift as the demand increases.

Further, MIC is also planning to invest ~INR 1850 mn in setting up a greenfield facility for manufacturing grid based as well as non-grid based LED lights such as indoor tube lights, down lights, street lights and portable solar lanterns on a large scale. It was allotted a land measuring 26.4 acres on the outer ring road, Hyderabad. Means of finance for the project are ~INR 550 mn from internal accruals and the rest INR 1300 mn is raised as debt. MIC's low debt equity ratio of 0.2 at the end of FY10 will come as handy in raising additional debt. MIC is not planning any equity dilution at this juncture.

This new facility will be equipped with semi-automatic and automotive production lines, certification and evaluation equipment to ensure compliance with international standards, core manufacturing lines to handle production of sheet metal, plastic and aluminium parts, warehousing space and other needed infrastructure.

For this project, MIC plans to import the latest manufacturing equipment from the US, Japan and Europe. The project is in the final stages of financial closure and the management is of the opinion that it to be finalised by Mar'11. We expect the commercial production from this facility to start from 2HFY12. At full capacity utilisation, this new facility has a potential to add ~INR 12 bn revenue for MIC.

CONCERNS

Technology obsolescence may impact MIC negatively

As MIC is dealing with LEDs which is yet to mature in terms of technology innovations, any significant changes in the production processes may result in technology obsolescence of both fixed and current assets such as inventories, which in turn can affect the company.

Sourcing LEDs from a single supplier may negatively impact MIC

MIC sources most of its primary raw material i.e. LEDs from Nichia Corporation. This may have a negative impact on MIC, if Nichia is unable to supply the requisite quantities in time and at reasonable cost.

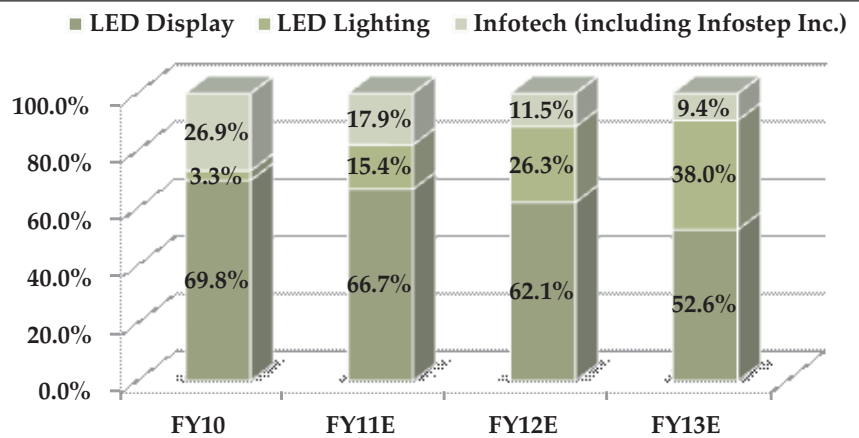
High receivable days

Though MIC has witnessed a marginal decrease in receivables cycle to 201 days in FY10 from 211 days in FY09, we believe this is still a matter of concern, as 25% of MIC's capital employed is deployed here. Further, 41% of these total debtors of INR 1206 mn are more than six months old. The management expects this number to be down by Dec 2011. Further, with increase in LED lighting sales where the approach is different from displays, we expect the receivable days should also come down in the next two to three years.

FINANCIAL ANALYSIS

In the last two to three years, MIC has decided to focus only on the media division (LED display and lighting), resulting in decreased revenues from infotech division. Revenues from infotech division (including subsidiaries) decreased to INR 700 mn in FY10 from INR 1800 mn in FY08, resulting in a 23% fall in total revenues. Though we estimate a fall in revenues from infotech division further to INR 350mn in the next two years, higher growth opportunities in the media division should more than cover the loss in revenues. On this backdrop, we estimate a revenue and EPS CAGR of 27.4% and 16.9% respectively for the three year period ending FY13. Even though the management is bullish on the opportunity from R-APDRP programme, we have not considered it in our estimates, as MIC is yet to get a contract.

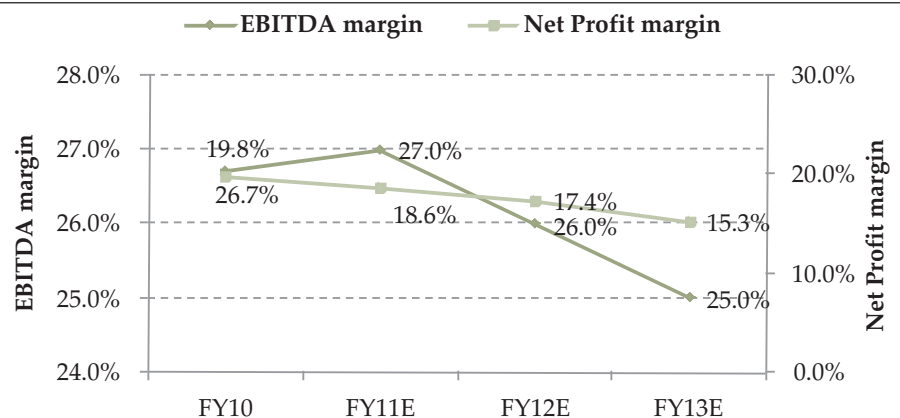
Segment revenue break-up



Source: Company, Unicon Research

We estimate EBITDA margins to drop to 25% by FY13e gradually from 27% in FY11e. Drop in margins can be largely attributed to expected increase in revenues from LED lighting division where EBITDA margins are lower at 15-20% as against 30-35% for display segment. However, expected higher productivity from the new capacity additions will bring in some savings and help overall EBITDA margins to fall gradually, as otherwise it would have been a steep fall. However, in the next three years ending FY13e, we estimate a steeper 4.5% drop in PAT margins to 15.3%, largely reflecting the tax outflow. We estimate a tax rate of 18% for the next three years as against 13.1% in FY10.

Expected decrease in EBITDA and PAT margins



Source: Company, Unicon Research

MIC Electronics Ltd.

PEER COMPARISON

MIC does not have a comparable peer listed in India. Due to this we compared MIC with global display players such as Barco N.V. and Daktronics, USA. However, as we expect MIC to derive only ~60% revenue in FY12 from the display segment, we have also considered IT, electronics and consumer electric companies for valuing other divisions. To derive an appropriate valuation, we took the weighted average of different sectors based on MIC's FY12e revenue break-up.

	CMP (INR)	Mkt Cap (INR Mn)	PAT (%)	ROE (%)	ROCE (%)	PE (x) FY11e	PE (x) FY12e	EV/EBITDA (x) FY11e	EV/EBITDA (x) FY12e	ROE (%) FY11e	ROE (%) FY12e	EBITDA Margins (%) FY11e	EBITDA Margins (%) FY12e
MIC	31.5	3229	19.8%	15.0%	16.5%	5.1	4.4	4.2	4.5	14.7%	14.8%	27.0%	26.0%
Displays (60% weight)													
Barco NV	3,086.0	39100	-6.5%	-12.4%	-11.5%	12.7	10.4	5.5	4.8	13.0%	13.5%	36.0%	36.0%
Daktronics USA	719.6	29835	-1.7%	-3.3%	-2.2%	44.1	28.7	13.6	10.2	13.1%	11.5%	26.0%	27.1%
Average						28.4	19.6	9.6	7.5	13.1%	12.5%	31.0%	31.5%
Consumer Electricals (25%)													
Bajaj Electricals	218.0	21574	5.2%	32.5%	43.7%	14.6	10.2	NA	NA	NA	NA	NA	NA
Havells India	350.0	43641	1.3%	13.7%	15.8%	17.5	11.9	11.4	8.7	50.1%	48.5%	39.0%	39.1%
Average						16.1	11.1	11.4	8.7	50.1%	48.5%	39.0%	39.1%
Electronics & IT (15%)													
CMC	2068.0	31331	16.5%	31.2%	34.8%	16.4	13.9	NA	NA	31.5%	29.4%	27.8%	29.3%
Bharat Electronics	1690.0	135200	13.6%	17.6%	25.5%	16.1	13.6	8.8	7.6	17.6%	17.8%	NA	NA
Average						16.2	13.8	8.8	7.6	24.6%	23.6%	27.8%	29.3%
Weighted Average						23.5	16.6	9.9	7.8	24.0%	23.2%	32.5%	33.1%

Source: Bloomberg, Unicon Research; Barco & Daktronics prices are converted to INR;

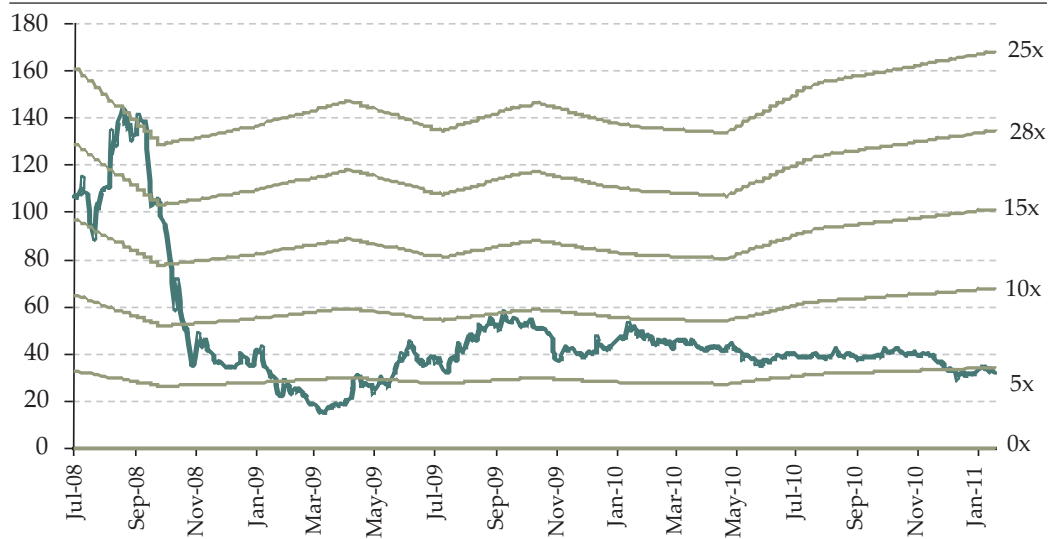
VALUATION & OUTLOOK

We expect MIC to be a major beneficiary of any surge in demand for LED lighting in India, as it is already preparing with necessary capacities for the future. MIC did not declare any dividend for FY10, for ploughing profits back into the company to meet the cap-ex for the proposed greenfield project. Further, its strategy to initially aim in creating the high-end product in any category and take home the experience in developing other low-end products should differentiate it from competition. This strategy has helped MIC to achieve the highest global quality standards and also become profitable in all its 20 product categories.

The stock is currently trading at INR 31.6 which is near to 52-week low of INR 28. Going forward, as the lighting segment is poised for a strong growth, we expect the positive impact of the same shall be reflected on MIC, thus providing increasing visibility among investors.

At CMP of INR 31.6, the stock currently trades at 4.4x our FY12e EPS. We chose EV/EBITDA over PE as the comparable parameter due to large differences among the covered companies such as geography of operation and sector concentration. Further, as a conservative measure, we have decided to discount the weighted average FY12e EV/EBITDA by 20% as MIC is a smaller company. Based on relative valuation method, we have arrived at a target price of INR 51 with an upside potential of 62% in the 12-18 months period. Thus, we recommend a Buy on the stock.

P/E Bands



MIC Electronics Ltd.

FINANCIAL STATEMENTS

	(INR Mn)				
Profit & Loss	2009	2010	2011E	2012E	2013E
Revenues	2954	2785	3410	4244	5763
Other Op. Income	0	0	0	0	0
Total Op. Income	2954	2785	3410	4244	5763
Raw Material Costs	1406	1200	1432	1867	2651
% to Total Op. Exp.	1	1	1	1	1
Total Op. Exp.	2217	2041	2489	3140	4322
EBITDA	737	744	921	1103	1441
Other Income	22	25	10	10	10
Depreciation	56	37	77	116	187
EBIT	703	732	854	998	1264
Interest	69	84	80	97	190
PBT	634	647	774	901	1074
Tax Provision	1	96	139	162	193
PAT	632	552	634	739	880

	(INR Mn)				
Cash Flow	2009	2010	2011E	2012E	2013E
PBT	634	647	774	901	1074
Add: Depreciation	56	37	77	116	187
Interest	63	82	80	97	190
Less: Direct Taxes Paid	0	0	-139	-162	-193
Increase in Working Capital	-726	-262	-99	-455	-851
Other Miscellaneous	0	0	0	0	0
CF from Operations	27	504	693	496	406
(Pur) / Sale of Fixed Assets	-301	-443	-500	-1440	-100
(Pur.) / Sale of Investments	-41	1	0	0	0
Other Miscellaneous	0	0	0	0	0
CF from Investments	-342	-442	-500	-1440	-100
Change in Networth	-2	99	0	0	0
Change in Loan Fund	498	59	-150	1089	-60
Less: Interest Paid	-2	11	-4	-2	-2
Dividend Paid	-57	0	0	-8	-8
Other Miscellaneous	0	0	0	0	0
CF from Fin. activities	437	169	-153	1080	-69
Net Change in Cash	121	231	39	136	237

Source: Company, Unicon Research

	(INR Mn)				
Balance Sheet	2009	2010	2011E	2012E	2013E
Net Assets (including intangible)	743.9	1408	1962	3687	3599
CWIP	861	631	500	100	100
Investments	47	46	46	46	46
Current Assets					
Inventories	531	953	1023	1273	1729
Sundry Debtors	1454	1273	1193	1485	1729
Cash & Bank Balances	32	47	55	64	81
Other Current Assets	1165	1198	1390	1511	2043
Current Liabilities					
Current Liabilities	552	577	682	849	1153
Provisions	165	152	170	212	288
Net Working Capital	2466	2743	2808	3272	4141
Total assets	4118	4828	5316	7105	7886
Share Capital	201	205	205	205	205
Reserves	2740	3603	4238	4935	5774
Share app. money & stk opt.	392	165	165	165	165
Minority Interest	26	37	41	42	44
Secured Loans	698	760	596	1668	1576
Unsecured Loans	61	57	72	89	121
Def. Tax Liabilities	0	0	0	0	0
Total Liabilities	4118	4828	5316	7105	7886

	(INR Mn)				
Ratios	2009	2010	2011E	2012E	2013E
Profitability & Margins (%)					
EBITDA Margin	25%	27%	27%	26%	25%
EBIT Margin	24%	26%	25%	24%	22%
Pre-tax Margin	21%	23%	23%	21%	19%
PAT Margin	21%	20%	19%	17%	15%
EPS	6	5	6	7	9
Growth %	-12%	-14%	15%	16%	19%
RoE	21%	15%	15%	15%	15%
RoCE	20%	16%	17%	16%	17%

Leverage (x)					
Debt / Equity	0.2	0.2	0.1	0.3	0.3
Interest Coverage	10.2	8.7	10.7	10.3	6.7
Current Ratio	4.3	4.7	4.3	4.1	3.9

Valuations (x)					
EV/Sales	1.3	1.4	1.1	1.2	0.8
EV/EBITDA	5.4	5.4	4.2	4.5	3.4
P/E	5.0	5.9	5.1	4.4	3.7
P/BV	1.0	0.8	0.7	0.6	0.5
Receivables Days	47.0	51.4	54.5	50.6	45.9
Inventory Days	63.6	81.3	79.9	73.5	70.7
Payable Days	18.5	41.6	41.6	31.5	32.4

MIC Electronics Ltd.

RESEARCH RECOMMENDATION

Date of Recommendation	Company Name	Report Type	Sector	Recommendation	Recommended Price	Target	CMP	Recommendation @ CMP
12-Jan-11	Diamond Power & Infrastructure Ltd	Initiating Coverage	Power	Buy	193.0	257.0	178.0	Buy
31-Dec-10	Hathway Cable & Datacom Ltd	Initiating Coverage	Media	Buy	164.0	227.0	128.8	Buy
31-Dec-10	Jindal Poly Films Ltd	Investment Idea	Packaging	Accumulate	525.0	620.0	420.5	Accumulate
31-Dec-10	Allahabad Bank	Investment Idea	Banking	Buy	225.0	304.0	203.0	Buy
22-Dec-10	Sasken Communication Tech. Ltd	Investment Idea	IT	Buy	168.0	226.0	155.3	Buy
30-Nov-10	Banco Product	Initiating Coverage	Auto	Buy	93.0	149.0	73.1	Buy
30-Nov-10	Allcargo Global Logistics	Investment Idea	Shipping & Logistics	Buy	155.0	233.0	132.0	Buy
18-Nov-10	Jyoti Structure	Investment Idea	Power	Buy	137.0	171.0	110.0	Buy
16-Nov-10	Pennar Industries	Investment Idea	Steel	Buy	49.0	63.0	50.1	Buy
3-Nov-10	HSIL Ltd	Initiating Coverage	Building Product	Buy	141.0	171.0	128.2	Buy
27-Oct-10	IDBI Bank	Initiating Coverage	Banking	Buy	171.0	228.0	142.0	Buy
26-Oct-10	MSP Steel and Power	Initiating Coverage	Steel	Buy	72.0	114.0	59.1	Buy
29-Sep-10	Nakoda Textiles	Investment Idea	Textiles	Buy	15.0	23.0	13.6	Buy
20-Sep-10	MSP Steel and Power	Investment Idea	Steel	Buy	63.2	114.0	59.1	Buy
16-Sep-10	Kajaria Ceramics	Investment Idea	Ceramic Tiles	Buy	70.0	88.0	68.3	Accumulate
15-Sep-10	Gokul Refoils	Investment Idea	Food Processing	Accumulate	97.3	109.0	94.9	Accumulate
14-Sep-10	Aqua Logistic	Investment Idea	Logistic	Hold	59.1	60.8	29.3	Buy
31-Aug-10	Lakshmi Precision Screws	Investment Idea	Fastner	Accumulate	79.8	91.8	55.4	Buy
27-Aug-10	BGR Energy System	Initiating Coverage	Power	Buy	786.0	1020.0	549.3	Buy
30-Jul-10	Patel Engineering	Initiating Coverage	Infrastructure	Buy	416.0	480.0	231.5	Buy
26-Jul-10	KPR Mills Ltd	Investment Idea	Textiles	Accumulate	156.0	181.0	168.4	Reduce
14-Jul-10	IDBI Bank	Investment Idea	Banking	Accumulate	125.0	142.0	142.0	Reduce
9-Jul-10	Opto Circuit	Initiating Coverage	Healthcare	Buy	243.0	293.0	242.9	Hold
26-Jun-10	BGR Energy System Ltd	Investment Idea	Capital Goods	Accumulate	697.0	820.0	549.3	Accumulate
23-Jun-10	Biocon Ltd	Investment Idea	Pharmaceuticals	Buy	321.0	387.0	348.2	Hold
19-Jun-10	Emmbi Polyarns	Investment Idea	Packaging	Buy	15.6	26.0	15.2	Buy
18-Jun-10	Indian Bank	Investment Idea	Banking	Buy	221.0	276.0	210.4	Accumulate
17-Jun-10	Diamond Power & Infrastructure Ltd	Investment Idea	Power Ancillary	Accumulate	196.0	226.0	178.0	Hold
12-Jun-10	Man Industries	Investment Idea	Steel Pipes	Buy	85.0	102.0	63.1	Buy
5-Jun-10	Usher Agro	Investment Idea	Food Processing	Buy	79.0	110.0	93.8	Accumulate
10-May-10	Greaves Cotton	Investment Idea	Construction	Buy	67.0	82.0	89.6	Reduce
30-Apr-10	Indraprastha Gas Ltd	Initiating Coverage	Gas Distribution	Buy	233.0	290.0	300.1	Reduce
16-Apr-10	Heidelberg Cement	Investment Idea	Cement	Accumulate	59.0	60.0	36.0	Buy
16-Apr-10	KEC International Ltd	Investment Idea	Power Transmission	Accumulate	570.0	655.5	85.6	Buy
16-Apr-10	Piramal Glass Ltd	Investment Idea	Packaging	Accumulate	97.0	111.6	89.5	Hold
13-Apr-10	Electrotherm India	Investment Idea	Steel	Buy	336.0	441.0	226.5	Buy
7-Apr-10	Setco Automative	Investment Idea	Auto Ancillaries	Buy	90.0	135.0	110.5	Reduce
6-Apr-10	Den Networks	Investment Idea	Media	Accumulate	197.0	226.6	148.1	Buy
5-Apr-10	Arshiya International	Investment Idea	Logistic	Buy	204.0	291.0	206.0	Hold
31-Mar-10	Welspun Gujarat SR	Initiating Coverage	Steel Pipes	Buy	273.0	365.0	150.3	Buy
22-Feb-10	Patni Computer	Initiating Coverage	IT	Buy	475.0	590.0	466.8	Buy
6-Feb-10	Shree Cement Ltd	Initiating Coverage	Cement	Buy	1995.0	2470.0	1655.0	Buy

MIC Electronics Ltd.

Unicon Investment Ranking Methodology

Rating	Buy	Accumulate	Hold	Reduce	Sell
Return Range	>= 20%	10% to 20%	-10% to 10%	-10% to -20%	<= -20%

Disclaimer

This document has been issued by Unicon Financial Intermediaries Pvt Ltd. ("UNICON") for the information of its customers only. UNICON is governed by the Securities and Exchange Board of India. This document is not for public distribution and has been furnished to you solely for your information and must not be reproduced or redistributed to any other person. Persons into whose possession this document may come are required to observe these restrictions. The information and opinions contained herein have been compiled or arrived at based upon information obtained in good faith from public sources believed to be reliable. Such information has not been independently verified and no guarantee, representation or warranty, express or implied is made as to its accuracy, completeness or correctness. All such information and opinions are subject to change without notice. This document has been produced independently of any company or companies mentioned herein, and forward looking statements; opinions and expectations contained herein are subject to change without notice. This document is for information purposes only and is provided on an "as is" basis. Descriptions of any company or companies or their securities mentioned herein are not intended to be complete and this document is not, and should not be construed as an offer, or solicitation of an offer, to buy or sell or subscribe to any securities or other financial instruments. We are not soliciting any action based on this document. UNICON, its associate and group companies its directors or employees do not take any responsibility, financial or otherwise, of the losses or the damages sustained due to the investments made or any action taken on basis of this document, including but not restricted to, fluctuation in the prices of the shares and bonds, reduction in the dividend or income, etc. This document is not directed to or intended for display, downloading, printing, reproducing or for distribution to or use by any person or entity who is a citizen or resident or located in any locality, state, country or other jurisdiction where such distribution, publication, reproduction, availability or use would be contrary to law or regulation or would subject UNICON or its associates or group companies to any registration or licensing requirement within such jurisdiction. If this document is inadvertently sent or has reached any individual in such country, the same may be ignored and brought to the attention of the sender. This document may not be reproduced, distributed or published for any purpose without prior written approval of UNICON. This document is for the general information and does not take into account the particular investment objectives, financial situation or needs of any individual customer, and it does not constitute a personalised recommendation of any particular security or investment strategy. Before acting on any advice or recommendation in this document, a customer should consider whether it is suitable given the customer's particular circumstances and, if necessary, seek professional advice. Certain transactions, including those involving futures, options, and high yield securities, give rise to substantial risk and are not suitable for all investors. UNICON, its associates or group companies do not represent or endorse the accuracy or reliability of any of the information or content of the document and reliance upon it is at your own risk.

UNICON, its associates or group companies, expressly disclaims any and all warranties, express or implied, including without limitation warranties of merchantability and fitness for a particular purpose with respect to the document and any information in it. UNICON, its associates or group companies, shall not be liable for any direct, indirect, incidental, punitive or consequential damages of any kind with respect to the document. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, on any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of Unicon Financial Intermediaries Pvt Ltd.

Address:

Wealth Management

Unicon Financial Intermediaries. Pvt. Ltd.

Ground Floor, Jhawar House,

285, Princess Street, Mumbai-400002

Ph: 022-66181200 / 100

Email: wealthresearch@uniconindia.in

Visit us at www.uniconindia.in