



empower with light™

# EMCORE Corporation

## Business Update

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**Hong Hou, Chief Executive Officer**

**Mark Weinswig, Chief Financial Officer**

**May 2011**

# “Safe Harbor” Statement



**Statements in this presentation which are not historical facts, and the assumptions underlying such statements, constitute "forward-looking statements" and assumptions underlying "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934 including, but not limited to statements regarding, (a) future product introductions and performance metrics, (b) 2010 and future financial performance, and (c) future development and growth in the Company's markets. Actual results may differ materially from those projected in the forward-looking statements. Readers should carefully review the risk factors set forth in EMCORE's latest Annual Report on Form 10-K, and other reports filed with the SEC from time to time, for a list of factors that could cause our business prospects, financial condition, operating results and cash flows to be materially adversely affected.**

**This presentation includes non-GAAP financial measures where indicated. These non-GAAP financial measures complement the Company's consolidated financial statements presented in accordance with GAAP. However, these non-GAAP financial measures are not intended to supersede or replace the Company's US GAAP results. A detailed reconciliation of historical GAAP results to the historical non-GAAP results is provided in the "Non-GAAP Condensed Consolidated Statement of Operations" schedule to our news release announcing the financial results of the fourth quarter of fiscal 2010. A discussion of the GAAP measures excluded from the forward-looking non-GAAP measures is provided in the "Business Outlook" paragraph of the news release. The news release is located in the News & Events section of our web site at [www.emcore.com/news\\_events/](http://www.emcore.com/news_events/).**

## Global Communications and Power at the Speed of Light

### Fiber Optic Components & Systems for Broadband, 10G Ethernet, Datacom & Telecom

#### Fiber Optics Broadband



CATV / FTTx  
Satellite Com Tx/Rx  
Fiber Optic Gyro  
Video Transport

#### Fiber Optics Data & Telecom



10 Gb/s Optical TxRxs  
Tunable XFPs  
40, 100Gb/s iTLAs  
Active Optical Cables  
VCSEL, PIN, DFB, APD

### Space and Terrestrial Solar Power Based on Multi-Junction Solar Cells

#### Photovoltaics Space Power



Space Solar Cells  
Space Solar Panels

#### Concentrator Solar Power

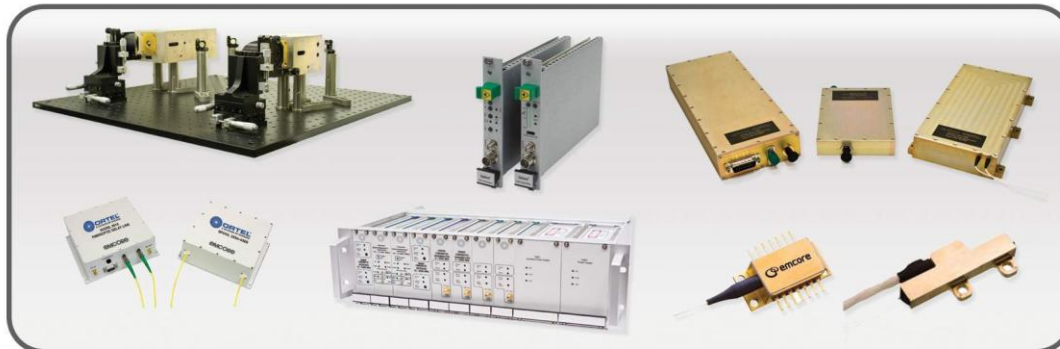


CPV Solar Cells  
Solar Power Systems

- **Cable TV: Leading Provider of Broadband Components and Systems**
  - Full end-to-end product offering for hybrid-fiber-coaxial (HFC) network.
  - Annualized revenue is ~\$65-70M
  - 10-15% year over year growth rate expected for next couple years
  - Gross margin: ~35%
  - Operating margin: ~10%
  
- **CATV Market Drivers**
  - Challenged by Telcom FTTX, MSOs are upgrading their HFC network to 1GHz to offer more value-added premium services
  - Build-out of new networks to businesses offering commercial services
  - Strong overseas market demands in Eastern Europe, Russia, India, China



CATV / FTTx



Satellite Communications & Photonic Systems

- CATV Transmitters / Receivers
- Analog CATV Lasers
- Photodiodes / Analog Receivers
- EDFA Fiber Amplifiers
- FTTx PON Components
- 1310nm HFC CATV Line Cards
- 1510nm Optical Amplifiers

- RF Satellite Links
- Tx/Rx Microwave Delay Lines
- Terahertz Wave Detection
- Lithium Niobate Devices
- Fiber Optic Gyros

## ■ Poised for Improved Financial Performance

- New products will drive revenue growth and profitability improvement
- Current losses are tied to significant investments in growth opportunities
  - Investment in new Telecom products with minimal revenues today
  - High fixed Fab costs will be absorbed as volume ramps
  - Legacy products – expected phase-out completed by Sept 2011

## ■ Product Portfolio Upgrade

- New products today represent >60% revenue for this division
  - 40/100 Gb/s iTLA (Integrable Tunable Laser Assembly)
  - Tunable XFP transceivers
  - Parallel optic modules and cables
- Gross margins and profitability are expected to improve as volume ramps



## Immediate Growth Opportunities



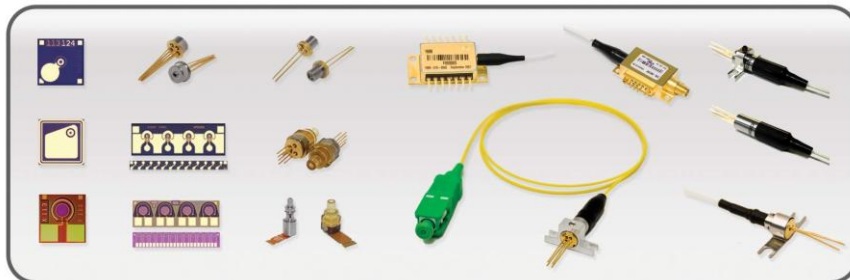
- Tunable lasers, ITLAs & uITLAs for 10, 40, & 100 Gb/s transponder apps
- Tunable XFP & 300-pin Transponders

## Growth Opportunities Starting 2012



- 2.5-14 Gb/s Parallel optical Tx/Rx
- SNAP 12, CXP & FDR
- 10/20/40 Gbps active optical cables
- **\*NEW\*** 150 Gbps active optical cable

## Incremental Opportunities and Legacy



- 14 Gb/s VCSELs & Photodiodes
- 10 Gb/s DFB & Photodiodes
- GPON TO-cans
- 1-14 Gb/s TOSA/ROSA

## ■ Applications and Business Opportunities

- Market opportunity driven by \$40 billion upgrade cycle
  - Major upgrade cycle for metro and long-haul: 40 and 100 Gb/s
- Strong momentum towards coherent detection design
- EMCORE's ITLA is the "laser of choice" for coherent systems

## ■ Market Leader

- High barrier to entry due to our ECL laser design platform
- Believe to have more than 50% market share for coherent systems
  - Qualified with a number of key OEM customers
  - Revenue doubled in 2010
  - Expect revenue growth of 100% in 2011



## ■ Applications and Business Opportunities

- To replace 300-pin transponders with TAM of \$300 - \$350M/yr
- To replace DWDM XFP with TAM of \$100 - \$150M/yr
- Potential to expand market due to smaller form factor

## ■ Competitive Landscape Expected to Be More Favorable

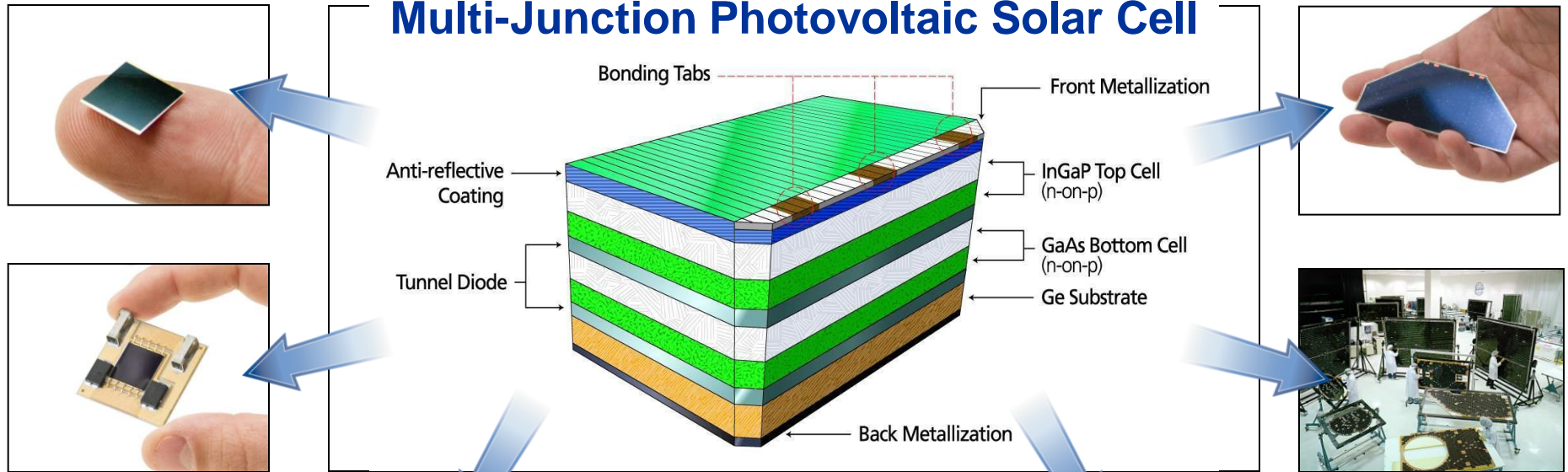
- Much more consolidated supplier base than 300-pin and DWDM XFPs

## ■ EMCORE's Status and Ramp Plan

- Primary target application: to replace 300-pin transponders
- Qualified by 3 tier-one OEMs
- First one-million dollar shipment in the June 2011 quarter
- Total capacity ramps to 15,000 units/q by the end of 2011

## CORE TECHNOLOGY:

### Multi-Junction Photovoltaic Solar Cell



SPACE EFFICIENCY  
**29.5%**



**39.0%**  
CPV EFFICIENCY



## ■ Space Solar: Stable, Growing business

- Annualized revenue is ~\$65M
- 5-10% year over year growth rate
- Gross margin: >35%
- Operating margin: 10-15%
- Great visibility with >\$80M orders/backlog

## ■ Space Solar Market Drivers

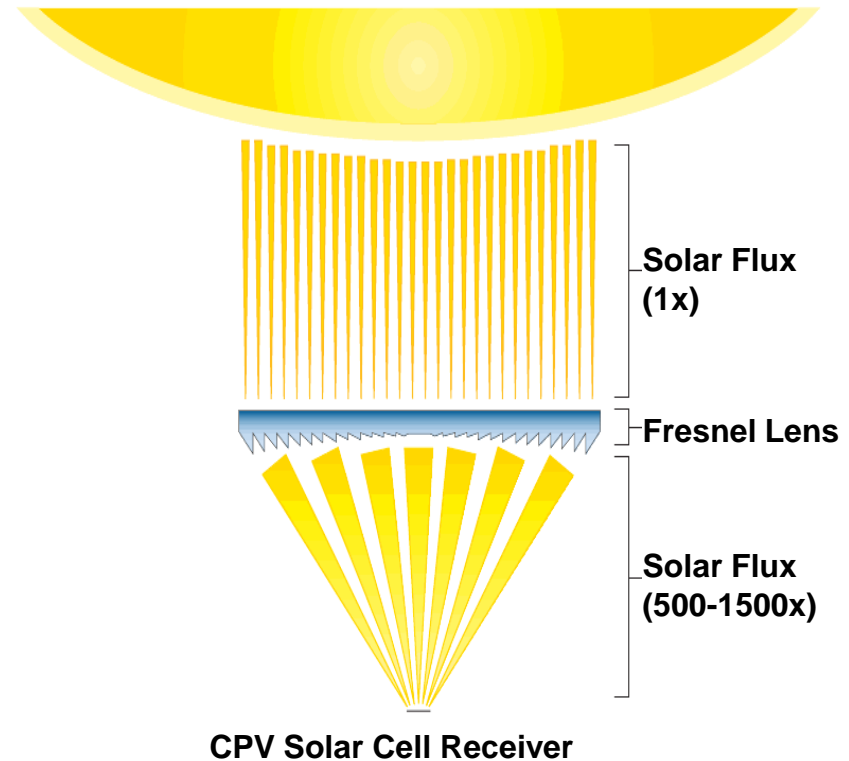
- Greater than 50% market share for commercial satellite
- Expand government business with Trusted Supplier program

## ■ Competitive Position

- Strong customer relationships
- Technology leadership

- **Dual-axis tracking CPV modules of high-efficiency multi-junction solar cells under a 1,000x concentration of DNI sunlight**
- **Advantages:**
  - **Low CapEx for production ramp up**
  - **Attractive Levelized Cost of Energy (LCOE) in regions with high DNI**
  - **Advanced cell technology to further reduce cost**

## Direct Normal Irradiance (DNI)



Maui, Hawaii – Gen3 CPV Installation

## ■ CPV Joint Venture Supported by Chinese Government Grants

- \$75M cash grant for CapEx for CPV component and system manufacturing lines
- 263 acre land grant – valued at ~\$20-30M
- Sales rebate for products produced: ~15%
- Other incentives and subsidies will further improve our cost position
- EMCORE will contribute \$12M (40% of the total registered capital) to the JV, \$8.5M was funded by San'an in a form of consulting fee to EMCORE.

## ■ Business scope

- Manufacture EMCORE-designed CPV components and systems in high-volume to supply EMCORE and its own business needs
- Develop solar power business in China.

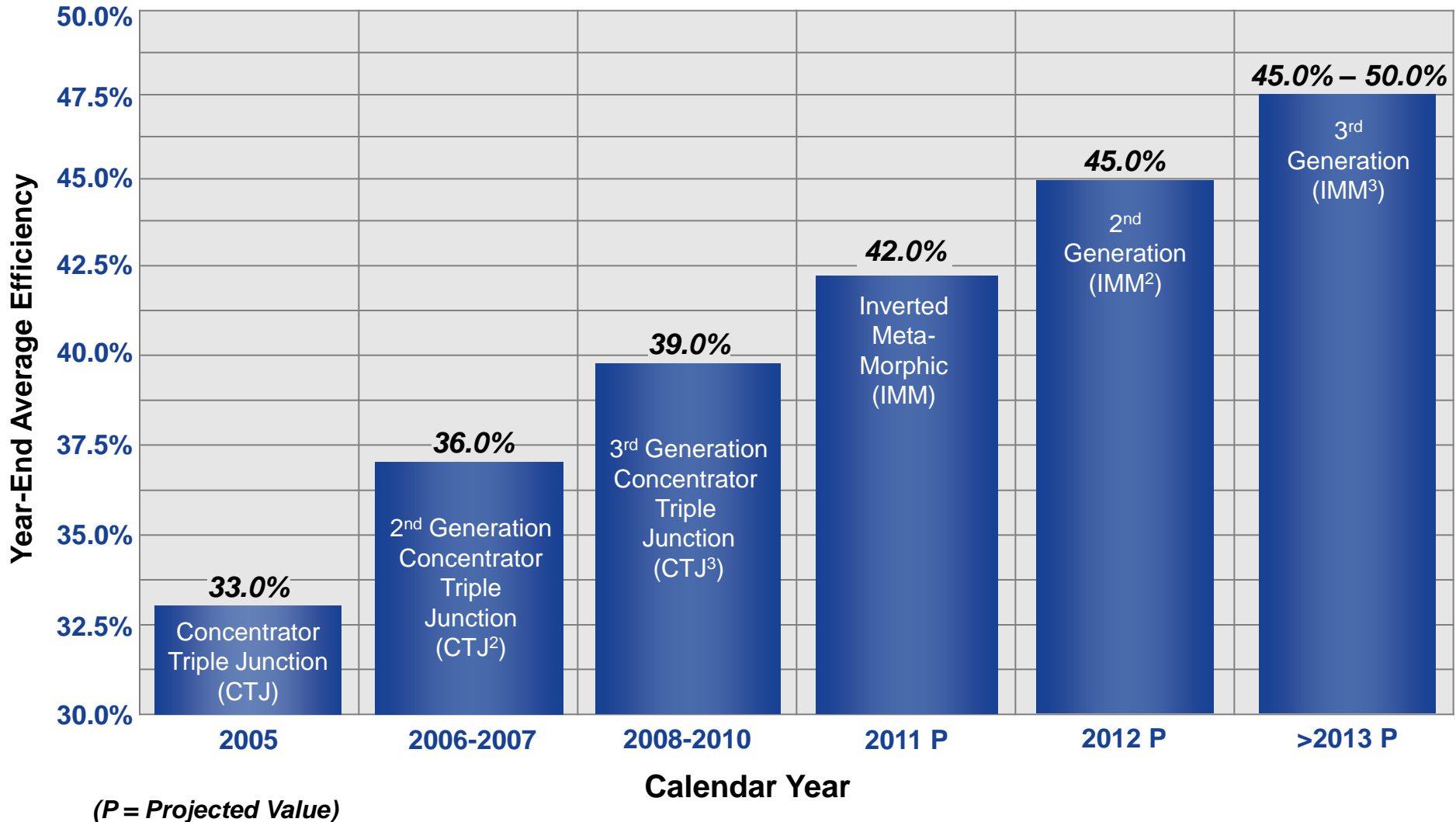
## ■ Ownership and management

- EMCORE owns 40% and San'an Optoelectronics Co, Ltd owns 60%
- Initial registered capital: \$30M
- EMCORE's Executive VP, Charlie Wang serves as General Manager of Suncore

# CPV Solar Cell Technology Roadmap



## Year-End Average Cell Efficiency





# Financial Recap of Recent Quarters



	<u>12/31/2009</u>	<u>3/31/2010</u>	<u>6/30/2010</u>	<u>9/30/2010</u>	<u>12/31/2010</u>	<u>3/31/2011</u>
Revenue	\$ 42,402	\$ 48,194	\$ 46,606	\$ 54,076	\$ 52,107	\$ 47,218
COGS	33,089	32,436	33,797	41,295	39,427	36,638
<b>Gross Profit</b>	9,313	15,758	12,809	12,781	12,680	10,580
<b>Gross Margin</b>	<b>22.0%</b>	<b>32.7%</b>	<b>27.5%</b>	<b>23.6%</b>	<b>24.3%</b>	<b>22.4%</b>
SG&A	12,227	9,023	14,004	7,295	8,264	9,380
R&D	7,513	7,596	7,147	7,282	7,191	7,984
Litigation settlement	-	-	-	-	-	(2,590)
Total Operating Expense	19,740	16,619	21,151	14,577	15,455	14,774
<b>Operating Loss</b>	<b>(10,427)</b>	<b>(861)</b>	<b>(8,342)</b>	<b>(1,796)</b>	<b>(2,775)</b>	<b>(4,194)</b>
Total other expense (income)	1,706	601	872	(911)	870	1,011
<b>NET LOSS</b>	<b>\$ (12,133)</b>	<b>\$ (1,462)</b>	<b>\$ (9,214)</b>	<b>\$ (885)</b>	<b>\$ (3,645)</b>	<b>\$ (5,205)</b>
<b>ADJUSTED EBITDA</b>	<b>\$ (1,757)</b>	<b>\$ 3,266</b>	<b>\$ 1,902</b>	<b>\$ 3,724</b>	<b>\$ 843</b>	<b>\$ (2,331)</b>

## ■ Mixed Performances in the Past Quarters due to:

- End of life of certain Fiber-Optics products
- Investment and low-volume start-up of the New Products

## ■ Revenue Guidance of the June 2011 Quarter: \$48-50 million

## ■ Telecom/Datacom Fiber Optics

- Tunable ECL laser for 40 & 100 Gb/s
- Tunable TOSA and XFP for 10 Gb/s
- Parallel optic module & active cable

## ■ Terrestrial CPV Solar

- CPV systems for power utility and commercial rooftop applications
- Low-cost manufacturing thru JV
- Only vertically integrated player with advanced solar cell technology

**Emerging business opportunities**

**Support**

## ■ Broadband Fiber Optics

- Market and technology leader
- CATV infrastructure upgrade continues within the HFC network

## ■ Space Solar

- Market and technology leader
- Robust visibility & growth potential through government programs

**Robust and profitable business units**

**The Company Is Poised to Grow and Deliver Improved Profitability**

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## Contact Information

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# Reconciliation of Adjusted EBITDA



	<u>12/31/2009</u>	<u>3/31/2010</u>	<u>6/30/2010</u>	<u>9/30/2010</u>	<u>12/31/2010</u>	<u>3/31/2011</u>
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<b>ADJUSTED EBITDA:</b>						
DEPRECIATION	\$ 2,396	\$ 2,404	\$ 2,303	\$ 2,286	\$ 2,323	\$ 2,312
AMORTIZATION	721	714	728	736	684	651
INTEREST EXPENSE	116	103	111	109	258	130
FAS123(R) STOCK-BASED COMPE	3,186	2,064	2,095	1,427	817	1,207
COMPENSATORY STOCK ISSUAN	244	284	356	205	305	282
LITIGATION SETTLEMENT	-	-	-	-	-	(2,590)
LOSS FROM EQUITY METHOD INVESTMENT	-	-	-	-	-	587
CORPORATE LEGAL EXPENSE	4,163	344	348	(154)	101	295
SPECIFIC A/R RESERVE ADJUSTM	(450)	-	-	-	-	-
SPECIFIC A/R RESERVE ADJUSTM	-	-	2,400	-	-	-
SPECIFIC INVENTORY RESERVE A	-	(1,185)	-	-	-	-
TANGSHAN TERMINATION FEE	-	-	2,775	-	-	-
	<b>\$ 10,376</b>	<b>\$ 4,728</b>	<b>\$ 11,116</b>	<b>\$ 4,609</b>	<b>\$ 4,488</b>	<b>\$ 2,874</b>
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