

Press Briefing Power Conversion Solutions for the Digital Lifestyle

May 25, 2004; 4:00 p.m. to 4:30 p.m. PCIM 2004

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Vice President & General Manager
Power Management & Supply business unit
Automotive & Industrial business group



Never stop thinking.

Agenda

- **Infineon Technologies, Automotive & Industrial at a glance**

- **Power Management & Supply**

- **Why managing power?**

- **Target applications & strategy**

- **Market share & future development**

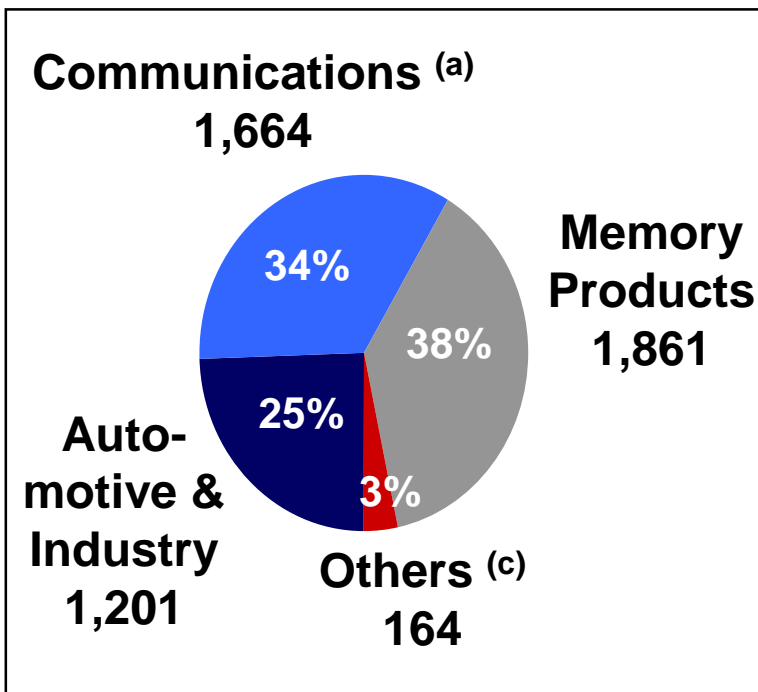
- **What is new?**

IFX Sales by Segments

Fiscal Years 2002 and 2003

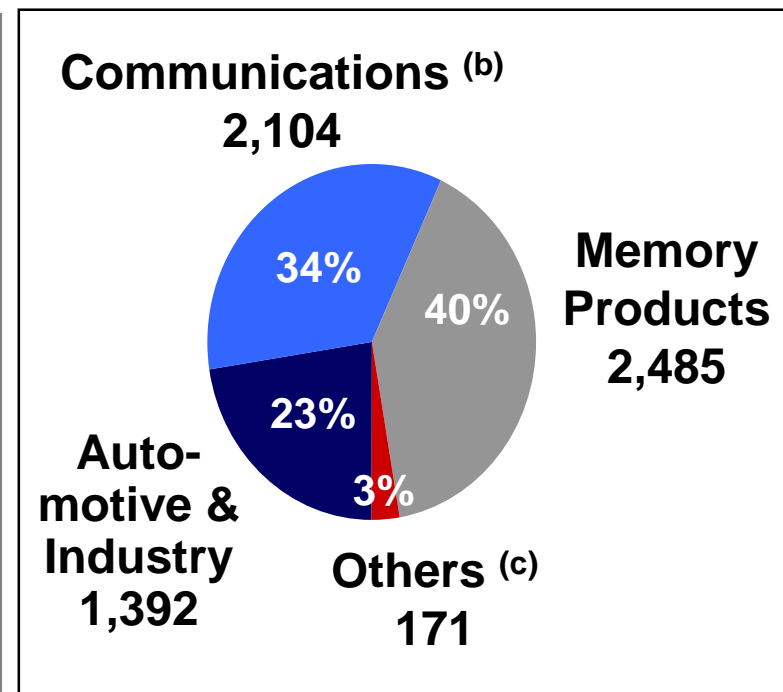
Sales by Segments in EUR m

FY 2002



Total: 4,890 EUR m

FY 2003



Total: 6,152 EUR m

(a) Includes Wireline Communication 386 EUR m, Secure Mobile Solutions 1,278 EUR m (according to US GAAP)
 (b) Includes Wireline Communication 459 EUR m, Secure Mobile Solutions 1,645 EUR m
 (c) Includes Corporate & Reconciliation and Other Operating Segments

Strategic Focus on Automotive and Power Electronics

AI Core Competencies

Automotive



- Complete product coverage: sensors, microcontrollers, power ICs
- Over 35 years of experience in automotive electronics

- Global presence and strong customer relationships
- Profound application know-how
- Semiconductor innovations, dedicated to automotive requirements

Power



- Broad spectrum of power semiconductor technologies for all kinds of voltages
- Technology leadership enabling system miniaturization and high efficiency performance

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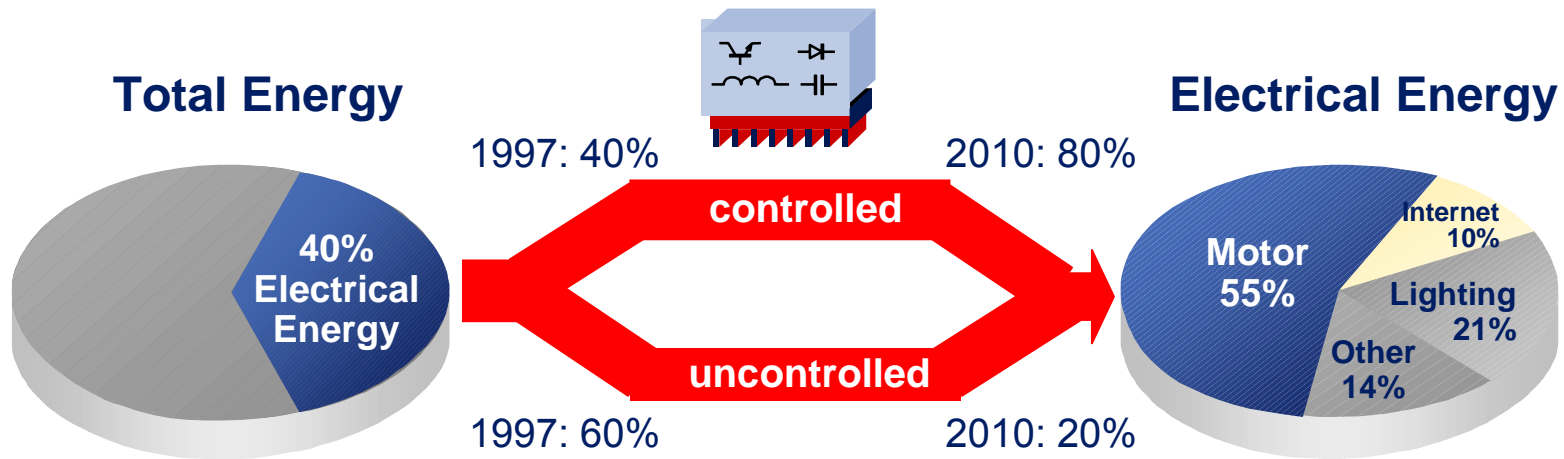
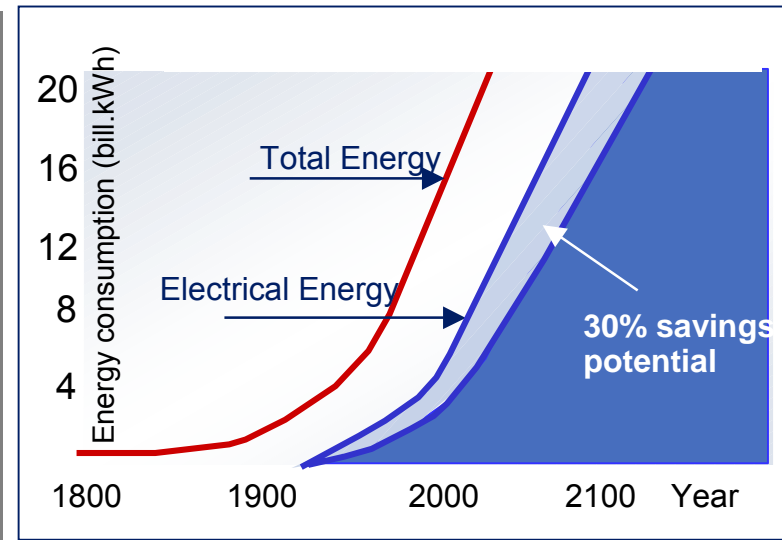
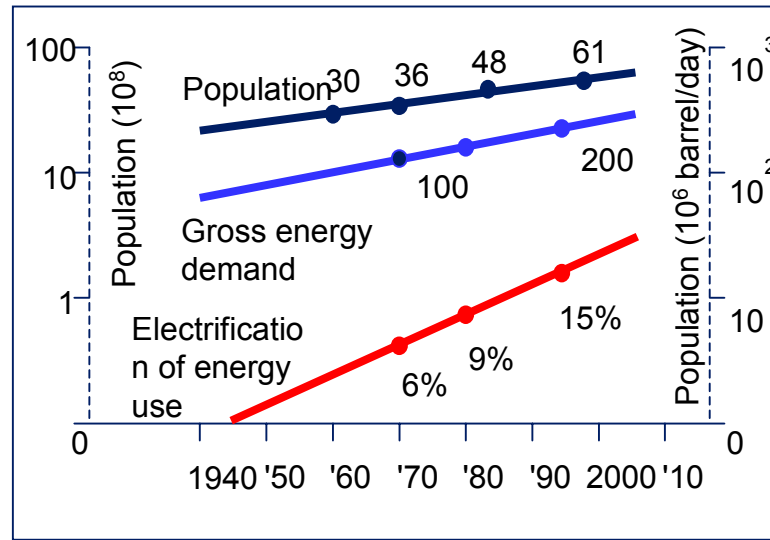
- **Market share and future development**

- **What is new?**

- **Questions & Answers**

Energy Demand & Consumption

Using power electronics up to 30% energy savings are possible!



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Power Management & Supply Target Markets

PC / Server / Telecom Power Supply

Low on-resistance and low switching losses are critical to this market

Power supplies for

- PCs
- Servers
- Telecom



Adapters / Chargers

Reduced system size and weight

- Notebooks
- Printers
- Games
- Handsets



Lighting Ballasts / ESL

Driven by performance and size considerations & cost

- Electric lamp ballasts for consumer and industrial applications
- High intensity discharge (HID)
- Lighting for industrial and automotive applications



Consumer Electronics

Driven by system cost, size and weight (power supply)

- Color TVs
- Beamers
- Set top box / DVDs
- White goods



Power Management & Supply Value Proposition / Strategy

Efficiency improvement & System miniaturisation
with integration & standard packages

Technology Leadership
e.g. CoolMOS, CoolSET, OptiMOS 2, NPT-IGBT, TrenchStop IGBT,
EmCON Diodes, thinQ! (SiC Schottky diodes)

Excellent price-performance ratio

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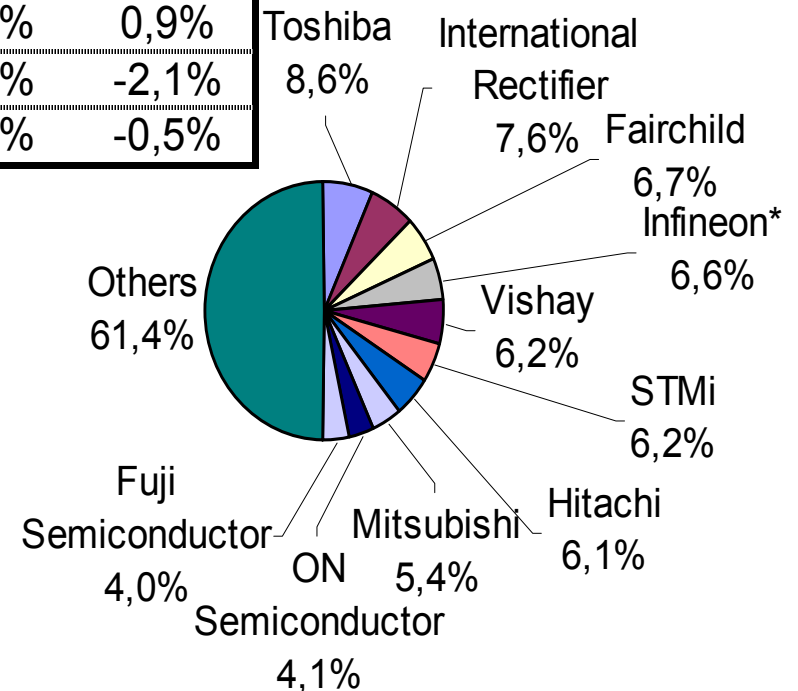
Power Semiconductor Supplier Rankings in 2001*

IFX moved up from Position 7/8

Rank	Supplier	2000	2001	Change
1.	Toshiba	9,3%	8,6%	-0,7%
2.	International Rectifier	8,1%	7,6%	-0,5%
3.	Fairchild	7,8%	6,7%	-1,1%
4.	Infineon *	5,6%	6,6%	1,0%
5.	Vishay	7,4%	6,2%	-1,2%
6.	STMicroelectronics	5,6%	6,2%	0,6%
7.	Hitachi	5,7%	6,1%	0,4%
8.	Mitsubishi	4,5%	5,4%	0,9%
9.	ON Semiconductor	6,2%	4,1%	-2,1%
10.	Fuji Semiconductor	4,5%	4,0%	-0,5%

*Infineon includes Eupec

According to Preliminary publications in **May 04** from IMS, IFX moved up in **2003** to **3rd position** with a **market share of 7,6%**

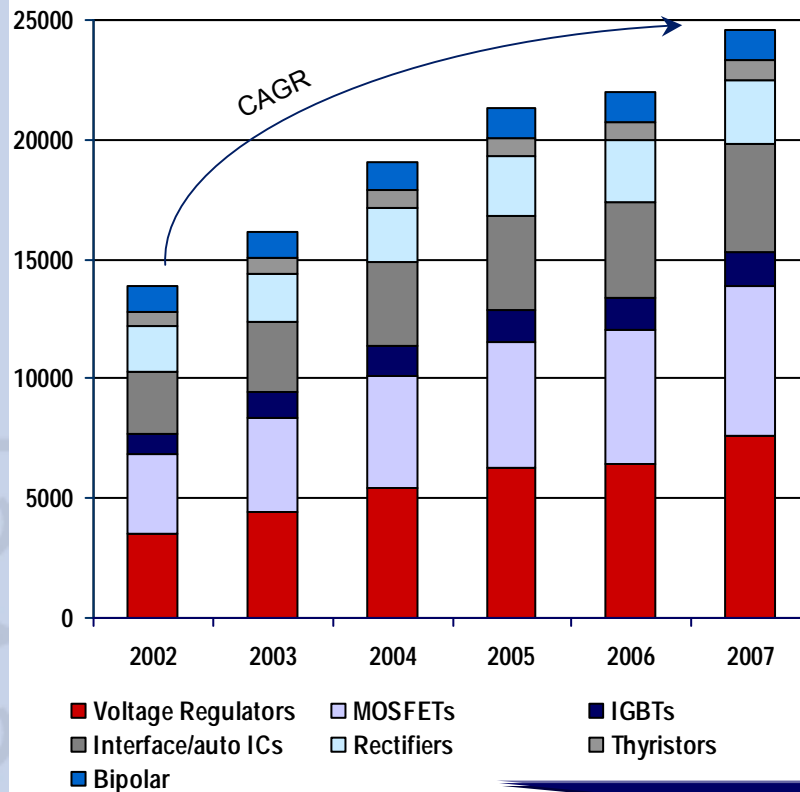


* Source: IMS Research, Nov 2002

Power Management & Supply Market

High potential in growing market

Market* potential by segment (in US\$)



Key Growth Drivers

Market growth is driven by increasing demand for clean and reliable power in communication and information technology applications

- Increasing power consumption
- Limited power resources (e.g. China)
- Smaller size: total system as well as the power supply unit
- Upcoming legal requirements limiting standby power consumption and EMI
- Standby time in portable applications
- Increasing demand on sophisticated drives for energy efficient and noiseless consumer applications

Increasing world wide power demand as well as high power quality requirements especially, in using the internet, need highly efficient power management solutions

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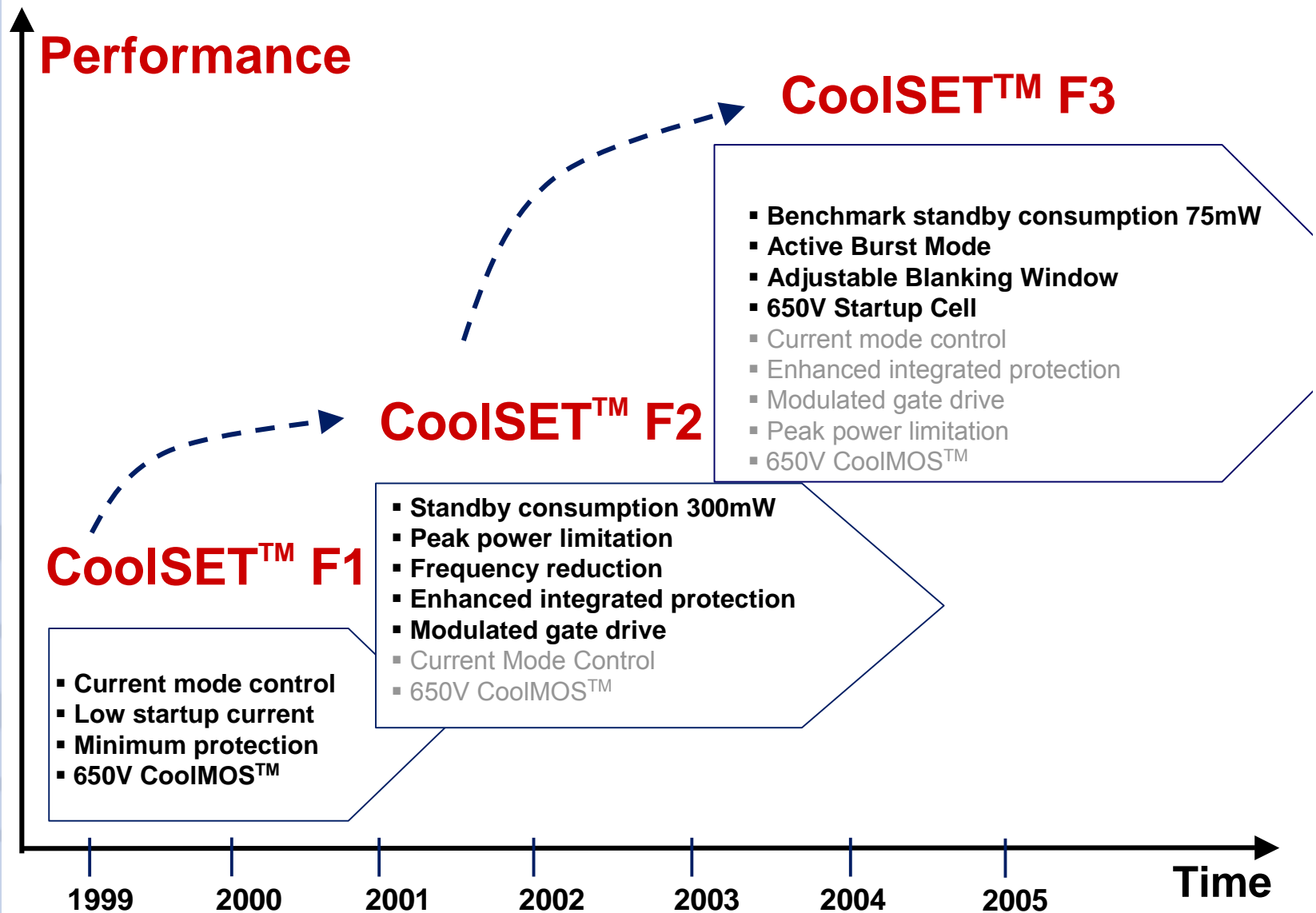
 - Market development and positioning

 - What is new?

- Questions & Answers

CoolSET™ F3 Family

New Industry Benchmark in Standby Power Consumption



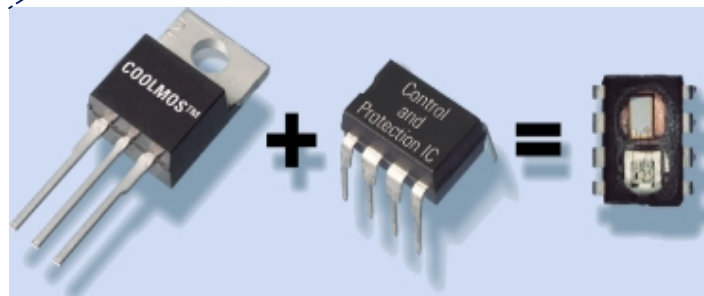
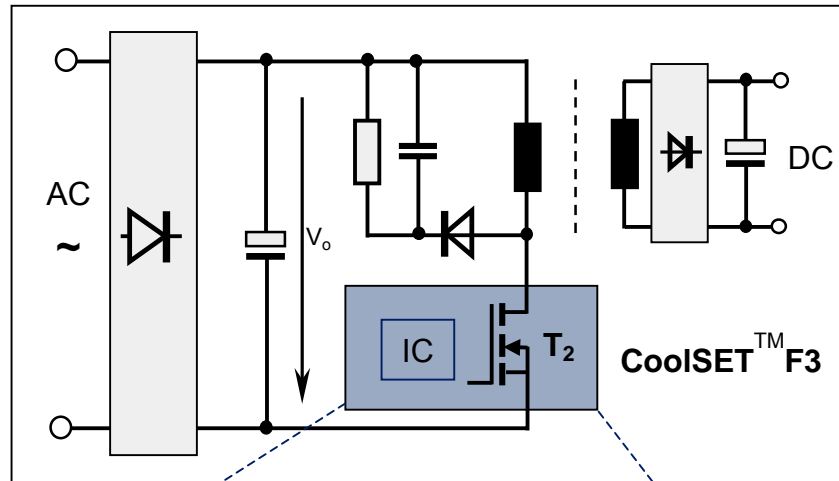
CoolSET™ F3

Summary of Features and Benefits

Product Features		Customers' Benefits
Active Burst Mode	➡	<ul style="list-style-type: none"> ➤ Very Low Standby Power 75mW (Best in Class) ➤ Very Low Output Ripple
Adjustable Blanking Window for Peak Loads	➡	<ul style="list-style-type: none"> ➤ Improved Turn-ON Behaviour for Multi-o/ps & Spindle Drive Systems
650V Integrated Startup Cell	➡	<ul style="list-style-type: none"> ➤ Shorter startup time ➤ Eliminates dropping resistors ➤ Startup time is independent of input voltage
<hr style="border-top: 1px dashed #000080;"/>		
Enhanced Integrated Protection	➡	<ul style="list-style-type: none"> ➤ Increased Robustness and Safety of the SMPS ➤ Reduce component count
Peak Power Limitation	➡	<ul style="list-style-type: none"> ➤ Transformer over-sizing is not required ➤ No need to over-rate power devices ➤ Reduced system size, weight & cost
Modulated Gate Drive	➡	<ul style="list-style-type: none"> ➤ Reduced EMI
650V Integrated CoolMOS	➡	<ul style="list-style-type: none"> ➤ Less heat generation

CoolSET™ F3 Family

Target Applications



Adapters

- Notebooks
- Printers
- LCD-Monitors

Battery Chargers for Portables

- Mobile Phones
- Digital Still Cameras
- Personal Digital Assistants / Organizers
- Battery Operated Tools

Power Supplies for Multimedia Systems

- Set Top Boxes (STB)
- Digital Video Disc (DVD)

PC Standby Power Supplies

Power Supplies for Home Appliances



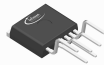


- Washing Machines
- Aircons

Auxillary Power Supplies

- Servers
- LCD or PDP TV

CoolSET™ F3 Family

Product List

V _{DS} [V]	f _{oper} [kHz]	Type	Rds_on [Ω]	Pn _(max) [W] ¹ Narrow Range	Pn _(max) [W] ¹ Wide Range	Package	Application	
650	100	ICE3A0365	6,45	22	10	 P-DIP-8-6	Adapter/Charger, Aux. Supply	
		ICE3A0565	4,70	25	12		DVD, STB, VCR, Adapter/Charger, Aux. Supply	
		ICE3A1065	2,95	32	16			
		ICE3A1565	1,70	42	20			
		ICE3A2065	0,92	57	28			
		ICE3A2565	0,65	68	33			
	67	ICE3B0365	6,45	22	10			
		ICE3B0565	4,70	25	12			
		ICE3B1065	2,95	32	16			
		ICE3B1565	1,70	42	20			
		ICE3B2065	0,92	57	28			
		ICE3B2565	0,65	68	33			
650	100	ICE3A3065P	3,00	125	60	 P-TO-220-6-47	Adaptors for LCD TV, LCD Monitor, Notebooks	
		ICE3A4065P	2,10	150	72			
		ICE3A4565P	1,55	170	83			
		ICE3A6065P	0,95	220	105			
		ICE3A6565P	0,79	240	120			
		ICE3A3065I	3,00	125	60	 P-TO-220-6-46		
			ICE3A4065I	2,10	150			72
			ICE3A4565I	1,55	170			83
			ICE3A6065I	0,95	220			105
			ICE3A6565I	0,79	240			120
	67	ICE3B3065P	3,00	125	60	 P-TO-220-6-47		
		ICE3B4065P	2,10	150	72			
		ICE3B4565P	1,55	170	83			
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		ICE3B6565P	0,79	240	120			
		ICE3B3065I	3,00	125	60	 P-TO-220-6-46		
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			ICE3B6065I	0,95	220			105
			ICE3B6565I	0,79	240			120
1. Conditions: T _j = 125°C. For TO-220 style, Rthca=2.7k/W								

✓ Wide product portfolio of products to choose from

✓ Further selective products will also be available in DIP7 and SMD packages from Dec 2004

CoolMOS enters the Consumer Market!

Increased power density demands, necessitate decrease in power losses, which are enabled by CoolMOS & SiC devices

- Even though the output power of the applications increase (for e.g. 650W for a Flat Panel Display), the compact designs allow only little space for the power supply.

- This limited space requirement makes CoolMOS the first choice for high power density applications (adapters, PDP & LCD TVs ... etc).





**We create
Semiconductor
Solutions,
enabling the
Technology Lifestyle
of the Individual in the
21st Century.**

Questions & Answers

Never stop thinking.