# GDA Technologies Inc. *An L&T Infotech Company*
Freescale Alliance Partner

GDA Technologies is a leading Electronic Design Services (EDS) and Silicon Intellectual Property (SIP) solution provider for the embedded, networking and consumer electronics market. GDA is a fully-owned subsidiary of the L&T Infotech Product Engineering Services (PES) offerings, which aims to provide end-to-end product design capability to its customers.

Founded in May 1996, GDA is a privately held company. From a single design center in San Jose, California, we are now a worldwide organization with development centers in North America and Asia catering to OEMs and semiconductor companies around the world. Headquartered in San Jose, California with our satellite design centers in Sacramento, Boston, Chennai, Kochi and Bangalore, we continue to expand our development center network to better serve our customers.
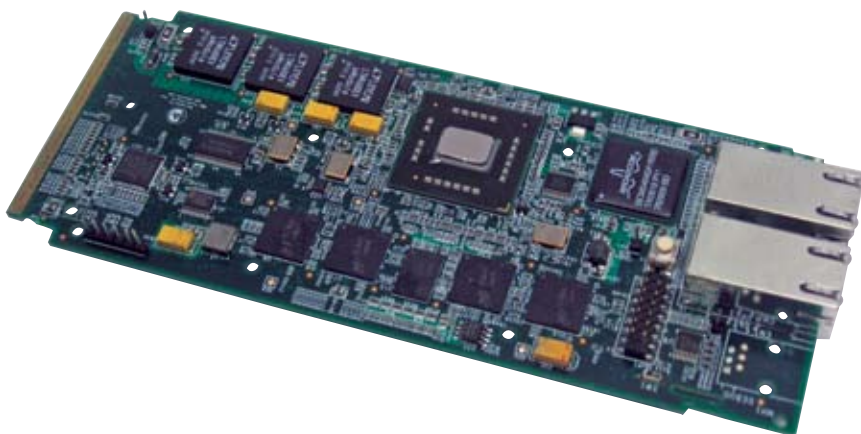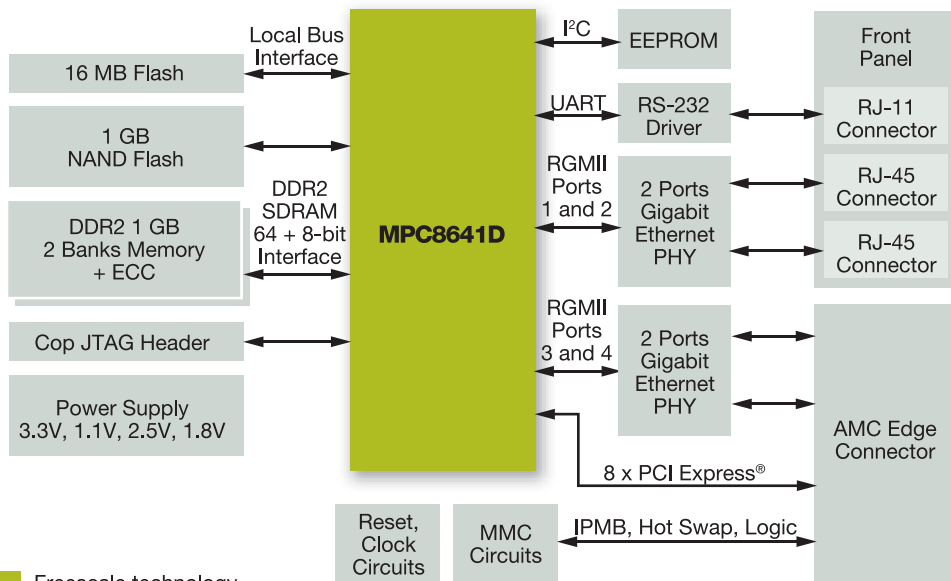
As a product design and development partner for networking, consumer electronics and embedded systems OEMs, GDA provides design technology services in the areas of SoC/ASIC, FPGA, board, embedded software and systems level design.

GDA Technologies AdvancedTCA® and AdvancedMC™ products based on processors from Freescale Semiconductor						
GDA Technologies Product	Freescale Processor	Function	Application	Form Factor	PICMG Compliance	BSP/Driver
MPC8641D AMC	Freescale MPC8641D dual core e600 processor, built on Power Architecture™ technology, with each core operating up to 1.5 GHz	Processing blade	Base stations, high-end switches and routers, IP-PBX	AMC™ single width, full height	AMC.0 Rev.2	Linux® v1.1.6
MPC8548E AMC	MPC8548E PowerQUICC® III processor at 1.3 GHz	Control processor/ Reference design	Base stations, high-end switches and routers, IP-PBX	AMC single width, full height	AMC.0	Consult GDA Technologies

GDA Technologies, Inc.
accelerate your **innovation**™

freescale™
Alliance Member

MPC8641D AMC Block Diagram

16 MB Flash

1 GB NAND Flash

Local Bus Interface

DDR2 1 GB 2 Banks Memory + ECC

DDR2 SDRAM 64 + 8-bit Interface

MPC8641D

Cop JTAG Header

Power Supply 3.3V, 1.1V, 2.5V, 1.8V

I²C — **EEPROM**

UART — **RS-232 Driver**

RGMII Ports 1 and 2 — **2 Ports Gigabit Ethernet PHY**

RGMII Ports 3 and 4 — **2 Ports Gigabit Ethernet PHY**

8 x PCI Express®

Front Panel

RJ-11 Connector

RJ-45 Connector

RJ-45 Connector

AMC Edge Connector

Reset, Clock Circuits
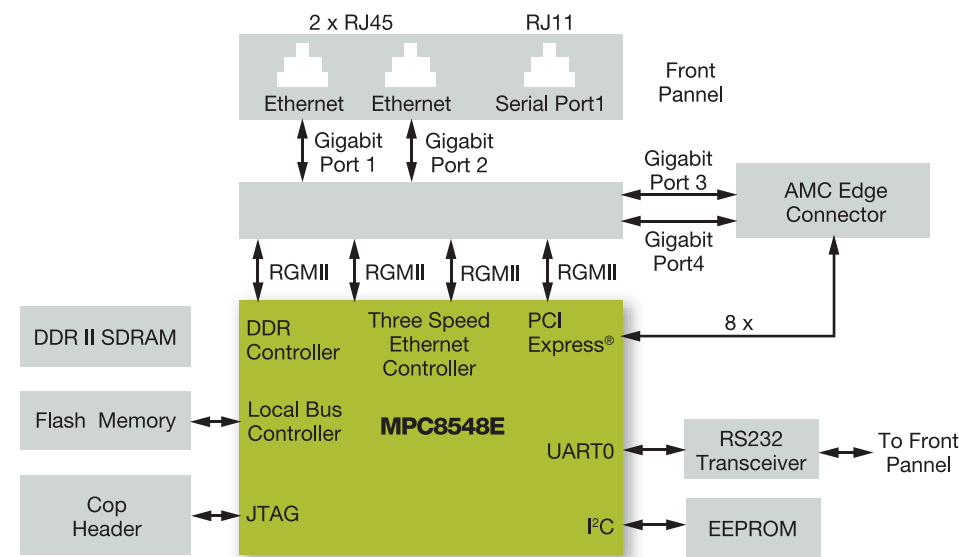
MMC Circuits

IPMB, Hot Swap, Logic

■ Freescale technology

MPC8641D AdvancedMC™ (AMC)

Processing blade

- Freescale MPC8641D dual core processor, built on Power Architecture™ technology, at up to 1.5 GHz
- 1 GB DDR2 SDRAM with ECC
- 16 MB boot flash memory
- Four Gigabit Ethernet Ports, of which two are to the front panel
- Eight lane PCI Express® to AMC edge connector
- Standard AMC connector interface
- Intelligent power management v1.5
- Temperature monitoring
- Hot-swap support
- AMC.0 Rev.2 compliant, single width, full height form factor
- Embedded Linux® BSP and GDA diagnostics software

MPC8548 AMC Block Diagram

2 x RJ45 — **Ethernet** **Ethernet**

RJ11 — **Serial Port1**

Front Pannel

Gigabit Port 1 / Gigabit Port 2

Gigabit Port 3 / Gigabit Port4

AMC Edge Connector

DDR II SDRAM

Flash Memory

Cop Header

RGMII RGMII RGMII RGMII

DDR Controller

Three Speed Ethernet Controller

PCI Express®

Local Bus Controller

MPC8548E

JTAG

UART0

I²C

8 x

RS232 Transceiver — To Front Pannel

EEPROM

■ Freescale technology

MPC8548 AMC

Control processor/reference design

- Freescale MPC8548E PowerQUICC® III processor, based on Power Architecture technology, at 1.3 GHz
- 512 MB DDR2 SDRAM with ECC
- 32 MB boot flash memory
- Support for Kasumi, DES, 3DES, MD-5, SHA-1/2, AES, RSA, RNG and ARC-4 encryption algorithms
- Four Gigabit Ethernet Ports
- Eight lane PCI Express to AMC edge connector
- Intelligent power management v1.5
- AMC.0 complaint, single width, full height form factor
- Embedded Linux BSP and GDA diagnostics software

Learn More: For more information about Freescale's ATCA/AMC reference designs and Freescale Alliance Partners for ATCA/AMC solutions, please visit **www.freescale.com/atca**.

For more information about GDA Technologies, Inc. and these ATCA/AMC solutions, go to **www.gdatech.com**.

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