



# EB900

(105mm x 105mm board)

## AMD eBrazos Platform

### Engineering Specification

Revision History

Revision	Date	Description	Remark
0.1- Mod(0)	2010/09/28	- Initial	Based on TacitRadiance
0.1- Mod(1)	2010/10/13	- Modified	

***Issued by: Dwight Looi (iBASE USA) / Wilson Lin (iBASE HQ)***

***Date: Sep. 28<sup>th</sup>, 2010***

***Engineer: SP Fan***

***Version: A1***

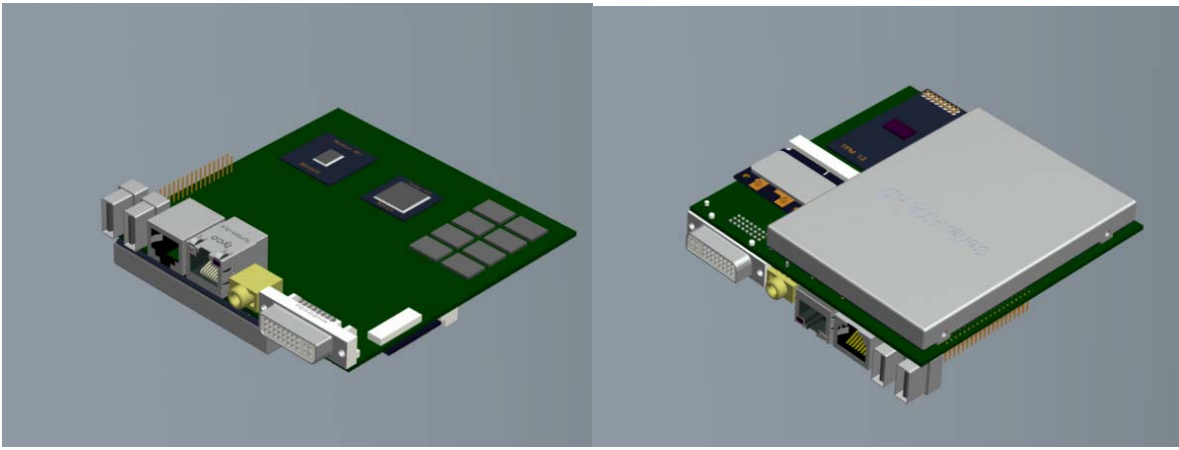
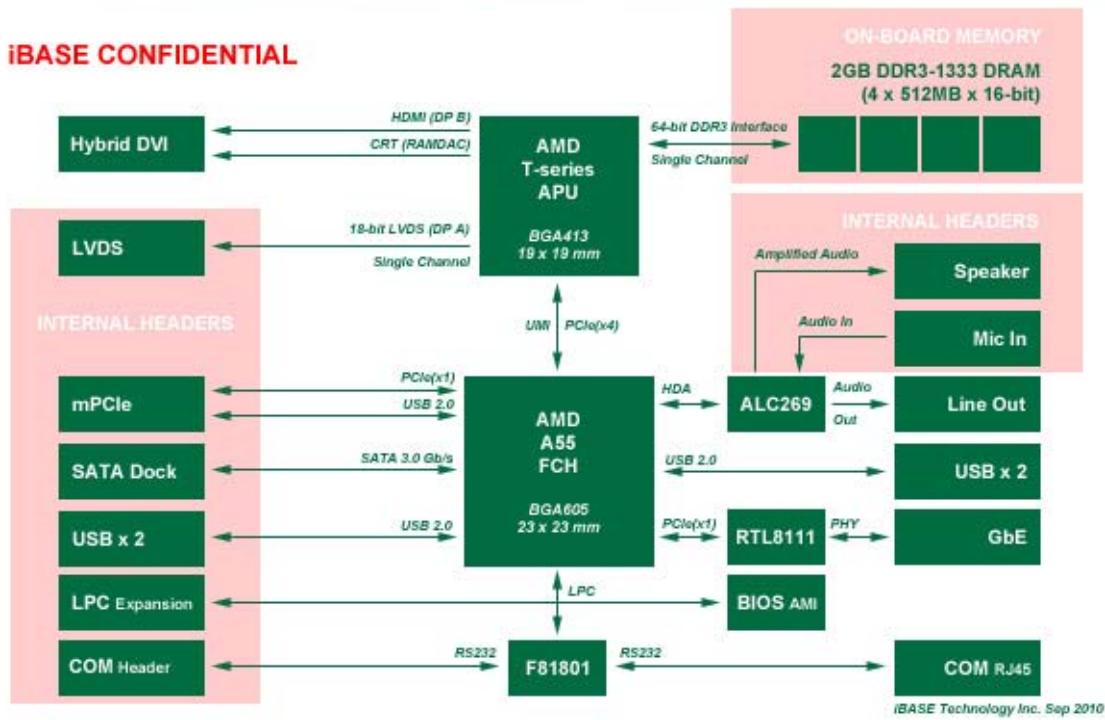
### Engineer Specifications

<b>Product Name</b>	<b>EB900</b>
<b>Form Factor</b>	E105 (Embedded 105)
<b>APU Type Operating Frequency</b>	AMD eOntarion G-Series Dual "Bobcat " Core Fusion Processor, 40nm Bulk Package= FT1, 413-BGA , 19 x 19 mm T56N=1.6GHz @ 18W TDP T48N=1.4GHz @ 18W TDP T40N=1.0GHz @ 9W TDP
<b>Cache</b>	L1 = 64KB L2 = 512KB*2
<b>Chipset</b>	AMD A55E "Hudson -E1" Fusion Controller Hub Package= 605-FCBGA , 23 x 23mm TDP=6W (Max.)
<b>BIOS</b>	AMI BIOS
<b>Memory</b>	APU on-die memory controller DDR3-1333 for T56NT/48N; DDR3-1066 for T40N <b>2GB</b> memory onboard (4 x 256Mb x 16-bit), Single-Channel Non-ECC, <b>1.5V</b>
<b>Video</b>	G-series APU on-die ATi Radeon "Evergreen" DirectX 11 IGX <ul style="list-style-type: none"> <li>o LVDS x 1 (1<sup>st</sup> DP supporting LVDS)</li> <li>o Hybrid DVI-I x 1 (2<sup>nd</sup> DP supporting HDMI + RAMDAC supporting CRT)</li> <li>o Full-HD HD video Decode (H.264/MPEG-4/ VC-1)</li> </ul>
<b>LAN</b>	Realtek 8111E GbE LAN x 1
<b>USB</b>	A55E FCH built-in USB 2.0 host controller supporting 5 ports <ul style="list-style-type: none"> <li>o 2 x USB 2.0 (external)</li> <li>o 2 x USB 2.0 (internal)</li> <li>o 1 x mini PCIe embedded USB link</li> </ul>
<b>Serial ATA Ports</b>	1 x SATA 2.5" HDD/SSD Dock
<b>Audio</b>	A55E FCH built-in HDA interface w/Realtek ALC269 2.0 channel Audio Codec
<b>LPC I/O</b>	Fintek F81801-I COM1 / COM2 (RS232 only)
<b>Remote On/Off Control</b>	MSP430F2330 + M41T81
<b>Edge I/O</b>	E105 Standardized External I/O <ul style="list-style-type: none"> <li>o DVI (DVI-I; DVI + CRT)</li> <li>o Audio out (Line-out)</li> <li>o GbE (RJ45)</li> <li>o COM1 (Yost type; RS232)</li> <li>o USB 2.0 High Speed x 2 (Type "A"; Female)</li> </ul>
<b>Headers</b>	E105 Standardized Internal I/O Header <ul style="list-style-type: none"> <li>o COM (RS232)</li> <li>o 2.0 Channel Audio (Mic-in)</li> <li>o 2.0 Channel Audio (Speaker Level 2.3W, ALC-269 integrated amplifier)</li> <li>o USB x 2 (USB 2.0 High Speed)</li> <li>o PWR</li> <li>o RST</li> <li>o PWR-LED</li> <li>o SATA-LED</li> <li>o 3-pin FAN header</li> <li>o 2-pin header for DC-in (12V @ 5A Max.)</li> </ul> E105 Standardized LCD interface (LVDS or eDP) <ul style="list-style-type: none"> <li>o DF-13 LVDS (Single Channel, 18-bit only)</li> </ul> E105 Standardized Expansion Interface <ul style="list-style-type: none"> <li>o Half-Mini PCIe(x1) slot [USB + PCIe(x1), 26.8mm x 30 mm]</li> <li>o LPC expansion connector</li> </ul>
<b>Power</b>	12V DC-IN
<b>Board Size</b>	105 x 105 mm



## EB900 - AMD Brazos Platform E105 SBC Functional Diagram

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## E105 - eBrazos Dimensions

