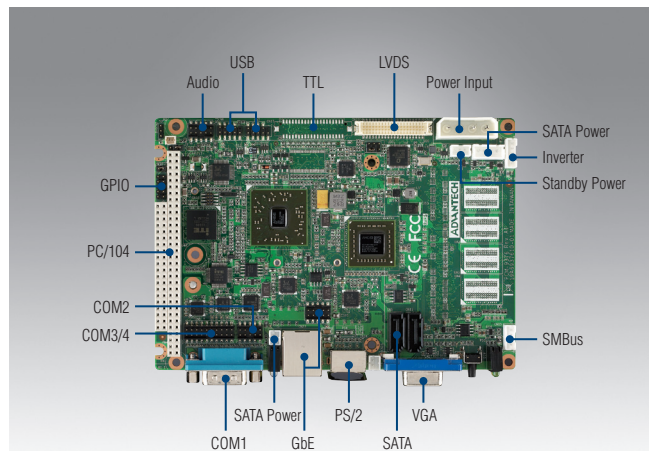


# PCM-9376

**AMD G-Series T40E/T16R 3.5" SBC,  
DDR3/DDR3L SODIMM/on-board SDRAM,  
PC/104, 48-bit LVDS, VGA, 24-bit TTL,  
2GbE, Mini PCIe, mSATA, LPC, iManager**



**iManager susiAccess**  **CE FCC**

## Features

- AMD G-Series Dual Core T40E and Single Core T16R processor + A55E, DDR3/DDR3L SODIMM up to 4GB
- DirectX11 supported. 48-bit LVDS, VGA, 24-bit TTL
- Dual GbE, 4 COM, 2 SATA, mSATA
- Expansion: PC/104, Mini PCIe, LPC connector for additional COM ports
- iManager, SUSIAccess and Embedded software APIs supported

### Software APIs:



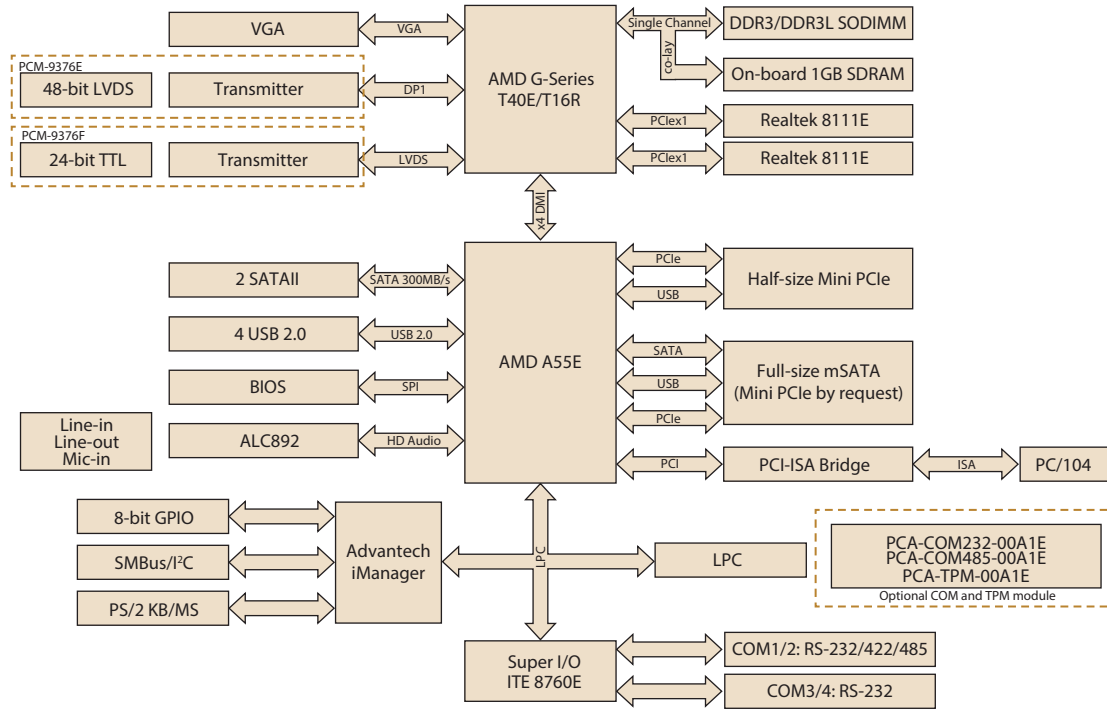
### Utilities:



## Specifications

		AMD® G-Series™ T40E	AMD® G-Series™ T16R
Processor System	CPU	AMD® G-Series™ T40E	AMD® G-Series™ T16R
	Frequency	1.0GHz (dual-core)	615MHz (single-core)
	L2 Cache	512 KB	
	System Chipset	AMD T40E/T16R + A55E	
	BIOS	AMI 32-Mbit	
Memory	Technology	DDR3/DDR3L 1066 MHz	
	Max. Capacity	SODIMM up to 4 GB	
	Recommended DRAM	AQD-SD3L4GN16-SQ	
	Socket	1 x 204-pin SODIMM	
	On-board SDRAM	1 GB	
Display	Chipset	AMD T40E/T16R processor	
	Graphic Engine	DirectX 11 graphics with UVD 3.0, Open CL 1.1, Open GL 4.0 Hardware decode (UVD 3) for H.264, VC-1 and MPEG2	
	VRAM	Optimized shared memory Architecture up to 384 MB system memory	
	LVDS	48-bit LVDS up to 1920 x 1200 at 60Hz (PCM-9376E)	
	VGA	Up to 1920 x 1200 at 85Hz	
	TTL	24-bit TTL (PCM-9376F)	
Dual Display	VGA+LVDS, VGA+TTL, LVDS+TTL		
Ethernet	Speed	10/100/1000 Mbps	
	Controller	GbE1/2: Realtek RTL8111E-VL-CG	
	Connector	GbE1 on RJ-45, GbE2 on box wafer	
Audio	Chipset	ALC892 Codec (Line-in, line-out, mic-in)	
WatchDog Timer		255 levels timer interval, programmable by software, multi-level WDT set by iManager	
Storage	SATA	2 SATA II (Max. Data Transfer Rate 300 MB/s)	
	mSATA	1 (Full-size, Mini PCIe supported by request)	
Rear I/O	Serial	1 (COM1: RS-232/422/485, supports WoR and RS-485's auto flow control) (ESD protection: air gap ±15kV, contact ±8kV)	
	Ethernet	1	
	PS/2 KB/Mouse	1	
	VGA	1	
	Reset button	1	
Internal I/O	Ethernet	1	
	USB	4 x USB2.0	
	Serial	3 (COM2: RS-232/422/485, supports RS-485 auto flow control. COM3/4: RS-232) (ESD protection: air gap ±15kV, contact ±8kV)	
	SMBus	1	
	I <sup>2</sup> C	1 (Share with SMBus)	
Expansion	GPIO	8-bit (5V tolerance)	
	PC/104 slot	1 (8/16-bit ISA) (Booted and powered from PC/104 supports by request)	
	Mini PCIe	1 (Half-size)	
Power	LPC connector	1 (For support of COM ports by PCA-COM232 or PCA-COM485)	
	Power Type	AT/ATX	
	Power Supply Voltage	5V ±5% (12V only for LCD and PC/104)	
	Power Consumption (Typical)	T40E: 1.47A@5V (7.35W) T16R: 1.44@5V (7.2W)	
	Power Consumption (Max. test in HCT)	T40E: 2.13A@5V (10.65) T16R: 1.89A@5V (9.45)	
	Power Management	ACPI	
Environment	Battery	Lithium 3 V / 210 mA	
	Operation	0 ~ 60° C (32 ~ 140° F) (Operational humidity: 40° C @ 85% RH non-condensing)	
Physical Characteristics	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing	
	Dimensions (L x W)	146 x 102 mm (5.7" x 4")	
	Weight	0.51 kg (1.12 lb) for total package	
	Total Height	23.9 mm (including of heatsink)	

## Block Diagram



## Ordering Information

Part Number	CPU	Memory	VGA	LVDS	TTL	GbE	RS-232/422/485	RS-232	USB2.0	SATA II	Audio	mSATA*	MiniPCle	LPC conn.	Expansion	Thermal Solution	Operating Temp
PCM-9376E-M0A1E	AMD T16R	SODIMM	1	48-bit	-	2	2	2	4	2	Yes	Full-size	Half-size	Yes	PC/104	Passive	0 ~ 60° C
PCM-9376F-M0A1E	AMD T16R	SODIMM	1	-	24-bit	2	2	2	4	2	Yes	Full-size	Half-size	Yes	PC/104	Passive	0 ~ 60° C
PCM-9376E-1GM0A1E	AMD T16R	on-board 1GB	1	48-bit	-	2	2	2	4	2	Yes	Full-size	Half-size	Yes	PC/104	Passive	0 ~ 60° C
PCM-9376E-S0A1E	AMD T40E	SODIMM	1	48-bit	-	2	2	2	4	2	Yes	Full-size	Half-size	Yes	PC/104	Passive	0 ~ 60° C
PCM-9376EZ-2GM0A1E	AMD T16R	Bundle 2G Memory	1	48-bit	-	2	2	2	4	2	yes	Full-size	Half-size	Yes	PC/104	Passive	-20 ~ 80° C
PCM-9376EZ22GM0A1E	AMD T16R	Bundle 2G Memory	1	48-bit	-	2	2	2	4	2	yes	Full-size	Half-size	Yes	PC/104	Passive	-40 ~ 85° C

\* Full-size mSATA supports Mini PCIe upon request

## Packing List

Part No.	Description	Quantity
	PCM-9376 SBC	
	Startup Manual	
1700019414	COM2 cable 2*5P-2.0/D-SUB, 30cm	1
1701200220	COM3/4 cable 2*10P-2.0/D-SUB*2, 22cm	1
1700017863	LAN2 cable 2*5P-2.0/RJ45, 15cm	1
1700019071	USB cable 2*5P-2.0/USB*2 w/o bracket, 12cm	1
1700008941	SATA cable 7P/7P w/ lock, 32cm	1
1700018785	5V/12V SATA Power cable 4P-2.5/SATA 15P, 35cm	1
1703100152	Audio cable 2*5P-2.0/Jack*3, 20cm	1
1700060202	PS/2 cable M-DIN 6P/M-DIN 6P*2, 20cm	1
1960071824T001	Heatsink 134 x 79 x 10.8 mm	1
9689000002	mini jumper pack	1

## Optional Accessories

Part No.	Description
1703200201	ATX Power cable, 20cm
1700018259	5V SATA Power cable 2P-2.0/SATA 15P, 20cm
1960063245T001	Heat spreader
PCA-COM232-00A1E	4 RS-232 LPC extension module, 31.5 x 48 mm
PCA-COM485-00A1E	4 RS-422/485 LPC extension module, 31.5 x 48 mm
PCA-TPM-00A1E	LPC extension TPM module, 31.5 x 48 mm

## Embedded OS/API

Embedded OS/API	Part No.	Description
WES7	2070012057	image WES7E PCM-3356 V5.1.5
Win XPE	2070012321	image WES2009 PCM-9376 x86 MUI24 V4.5
WinCE 6.0		WinCE 6.0
WinCE 7.0	2070013052	WinCE 7.0
Linux		Ubuntu 12.04
Software API		iManager2.0