

---

# Datasheet

## Advantech

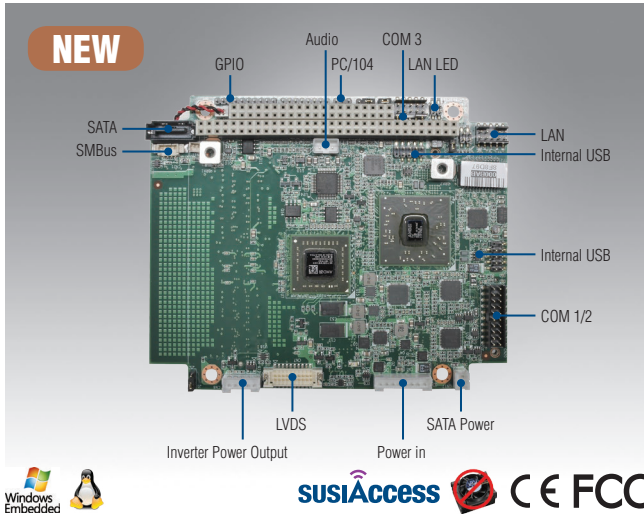
**PCM-3356**

The information contained in this document has been carefully researched and is, to the best of our knowledge, accurate. However, we assume no liability for any product failures or damages, immediate or consequential, resulting from the use of the information provided herein. Our products are not intended for use in systems in which failures of product could result in personal injury. All trademarks mentioned herein are property of their respective owners. All specifications are subject to change without notice.

---

# PCM-3356

AMD T16R, T40E, PC/104 SBC, VGA, LVDS, LAN, USB, COM, SATA



## Features

- AMD® G-Series™ Processor T16R 615 MHz /T40E 1.0GHz
- Supports up to 4GB DDR3L SODIMM/1G DDR3L On board memory
- Supports 18-bit LVDS and VGA
- Supports 3 COM ports, 4 USB 2.0 ports, dual GbE and audio codec
- Supports extended temp: -40 ~ 85° C
- Expansion: PC/104 and half size mini PCIe
- Supports SUSIAccess and Embedded Software APIs

### Software APIs:



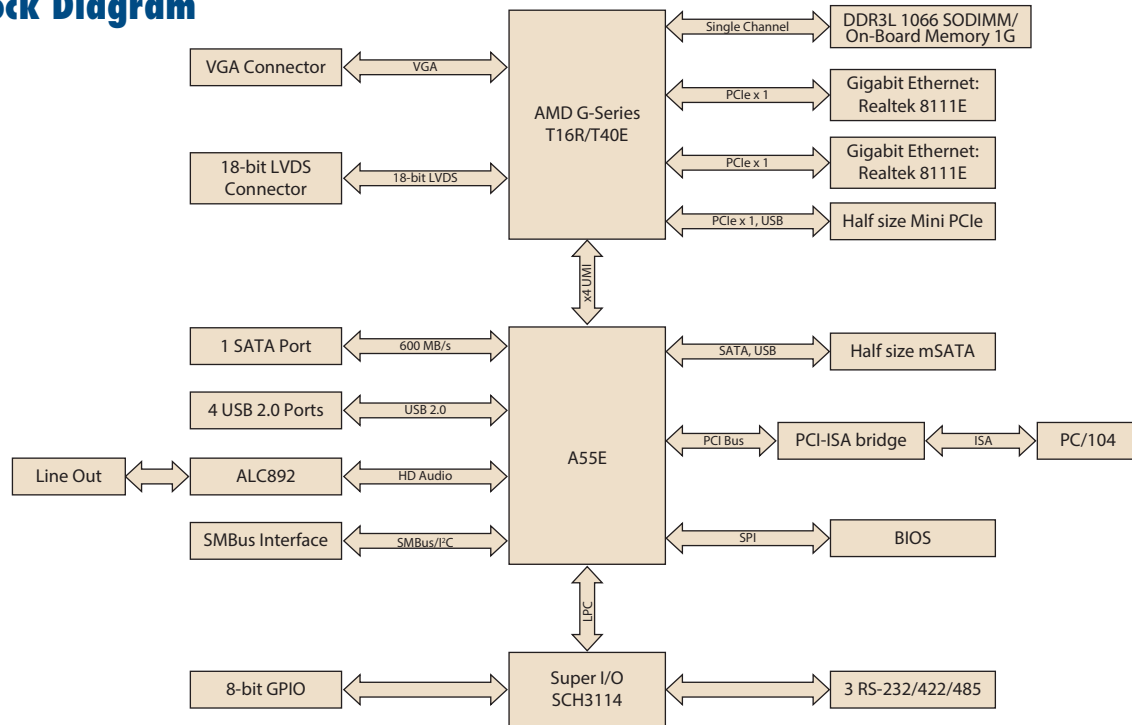
### Utilities:



## Specifications

Processor System	CPU	AMD® G-Series™ T16R	AMD® G-Series™ T40E
	Core No	1	2
	Frequency	615 MHZ	1.0 GHz
	L2 Cache	512 KB	
	System Chipset	AMD G-Series + A55E	
	BIOS	AMI 32-Mbit	
Memory	Technology	1GB DDR3L 1066 MHZ	
	Max. Capacity	On Board memory: 1G SO-DIMM: 4G	
	Socket	1 x 204-pin SODIMM	
Display	Chipset	AMD G-Series	
	Graphics 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	Supports up to 1280 x 800 @ 18-bit LVDS	
	VGA	Supports up to 1920 x 1200 at 85Hz	
Ethernet	Dual Display	LVDS + VGA	
	Interface	10/100/1000 Mbps	
	Controller	LAN1: Realtek RTL8111E-VB-GR LAN2: Realtek RTL8111E-VB-GR	
Audio	Chipset	Realtek ALC892, High Definition Audio (HD), Line out	
WatchDog Timer		Output System reset, Programmable 1 ~ 255 sec	
Internal I/O	SATA	1 x SATA 2.0	
	mSATA	1 (Half size)	
	USB	4 x USB 2.0	
	Serial	3 x RS-232/422/485 with auto flow control (ESD protection: Air gap ±15kV, Contact ±8kV)	
	SMBUS	1	
	GPIO	8-bit GPIO	
Expansion	PC/104 Slot	1	
	Mini PCI Express	1 (Half size)	
Power	Power Type	AT/ATX	
	Power Supply Voltage	5V only to boot up (12 V is optional for LCD inverter and add on card)	
	Power Consumption (Typical)	T16R: 1.17 A @ +5 V (5.85 W) T40E: 1.22 A @ +5 V (6.10 W)	
	Power Consumption (Max, test in)	T16R: 1.43 A @ +5 V (7.15 W) T40E: 1.77 A @ +5 V (8.85 W)	
	Power Management	ACPI 4.0	
	Battery	Lithium 3 V / 210 mAH	
Environment	Operation	0 ~ 60° C (32 ~ 140° F) (Operational humidity: 40° C @ 85% RH non-condensing)	
	Non-Operation	-40° C ~ 85° C and 60° C @ 95% RH non-condensing	
Physical Characteristics	Dimensions (L x W)	96 x 115 mm (3.8" x 4.5")	
	Weight	0.590 kg (1.30 lb)	
	Height	Top side:19.5 mm (F), Bottom side:10.6 mm	

## Block Diagram



## Ordering Information

Part Number	CPU	Chipset	Memory	VGA	LVDS	mSATA	PC/104	GbE	USB 2.0	RS-232/422/485	Audio	Expansion	Thermal Solution	Operating Temp
PCM-3356F-S0A2E	T40E	A55E	SO-DIMM	1	18-bit	1	Yes	2	4	3	Yes	PC/104	Passive	0 – 60° C
PCM-3356F-1GM0A2E	T16R	A55E	1GB DDR3L on board	1	18-bit	1	Yes	2	4	3	Yes	PC/104	Passive	0 – 60° C
PCM-3356F-M0A2E	T16R	A55E	SO-DIMM	1	18-bit	1	Yes	2	4	3	Yes	PC/104	Passive	0 – 60° C
PCM-3356Z2-2GM0A2E	T16R	A55E	2GB Bundle	1	18-bit	1	Yes	2	4	3	Yes	PC/104	Passive	-40 – 85° C
PCM-3356FZ21G0BA2E	T16R	A55E	1GB DDR3L on board	1	18-bit	1	Yes	2	4	3	Yes	PC/104	Passive	-40 – 85° C

\* Extended temperature SKU did not support 3D function

## Packing List

Part No.	Description	Quantity
	PCM-3356 SBC	
	Startup Manual	
1700018799	M Cable SATA 7P/SATA 7P 90/180 25cm	1
1700000898	VGA cable D-SUB 15P(F)/12P-1.25MM 14CM x1	1
1703100121	2*5P-2.0/USB-A(F)*2 12CM x2	2
1701200220	COM RS-232 Cable 2*10P-2.0/D-SUB 9P(M)*1 22CM x1	1
1700019414	COM RS-422/485 Cable 2*5P-2.0/D-SUB 30CM x1	1
1700003491	ATX/AT power cable 1*8P-2.0/B4P-5.08*2 15cm x1	1
1700018259	SATA power cable for 5V connector, 1*5P-3.81/1*2P-2.0 20CM C=R,B	1
1700020638-01	Audio cable 1*3P-2.0/Phone JACK 20cm x1	1
1700017863	LAN cable RJ45/2*5P-2.0 15cm x2	2
1960058627T001	Heatsink for PCM-3356 (105 x 77.97 x 19.5 mm) for T40E/extend temperature SKU	1
9689000002	mini jumper pack (black) x1	1
9660104000	PC/104 screw and copper post package x1	1
1960069974T001	Heat sink A-T16R M-10.4W 105*78*10-SC PCM-3356A2 for T16R	1

## Optional Accessories

Part No.	Description
165313222B	PC/104 connector 64-pin (Long pin)
165312022B	PC/104 connector 40-pin (Long pin)
1703150102	SATA Power cable B4P-5.08/SATA 15P 10cm x1

## Embedded OS/API

Embedded OS/API	Part No.	Description
WES7	2070012057	image WES7E PCM-3356 V5.1.5
Win XPE	2070012056	image WES2009 PCM-3356 V4.4 24MUI; SA
WinCE 6.0		WinCE 6.0
WinCE 7.0	2070012240	image WEC7 PCM-3356 V1.0 Eng
Linux		Ubuntu 12.04
Software API		SUSI V3.0

Our company network supports you worldwide with offices in Germany, Austria, Switzerland, Great Britain and the USA. For more information please contact:

## Headquarters

### Germany



**FORTEC Elektronik AG**  
Lechwiesenstr. 9  
86899 Landsberg am Lech

Phone: +49 8191 91172-0  
E-Mail: [sales@forteca.de](mailto:sales@forteca.de)  
Internet: [www.forteca.de](http://www.forteca.de)

## Fortec Group Members

### Austria



**FORTEC Elektronik AG**  
**Office Vienna**

Nuschinggasse 12  
1230 Wien

Phone: +43 1 8673492-0  
E-Mail: [office@fortec.at](mailto:office@fortec.at)  
Internet: [www.fortec.at](http://www.fortec.at)

### Germany



**Distec GmbH**

Augsburger Str. 2b  
82110 Germering

Phone: +49 89 894363-0  
E-Mail: [info@distec.de](mailto:info@distec.de)  
Internet: [www.distec.de](http://www.distec.de)

### Switzerland



**ALTRAC AG**

Bahnhofstraße 3  
5436 Würenlos

Phone: +41 44 7446111  
E-Mail: [info@altrac.ch](mailto:info@altrac.ch)  
Internet: [www.altrac.ch](http://www.altrac.ch)

### United Kingdom



**Display Technology Ltd.**

5 The Oaks Business Village  
Revenge Road, Lordswood  
Chatham, Kent, ME5 8LF

Phone: +44 1634 672755  
E-Mail: [info@displaytechnology.co.uk](mailto:info@displaytechnology.co.uk)  
Internet: [www.displaytechnology.co.uk](http://www.displaytechnology.co.uk)

### USA



**Apollo Display Technologies, Corp.**

87 Raynor Avenue,  
Unit 1 Ronkonkoma,  
NY 11779

Phone: +1 631 5804360  
E-Mail: [info@apolloDisplays.com](mailto:info@apolloDisplays.com)  
Internet: [www.apolloDisplays.com](http://www.apolloDisplays.com)