

Fit-PC3

Product Specification



Introduction

At first glance the Fit-PC3 may look like just another compact PC but it is in fact the most advanced miniature computer to-date. The Fit-PC3 has been designed from the ground up to implement what has been learnt from the previous five Fit-PC generations.

Key Features

- Excellent balance between performance and low power
- Extremely rich I/O
- Innovative modular design
- Ruggedised yet attractive fanless design
- Attractive die-cast aluminium shell

System

Fit-PC3 is designed around the AMD Embedded G-Series Fusion APU providing:

- Dual-core 64 bit x86 CPU @ 1.0-1.65 GHz
- AMD Radeon HD 6xxx GPU

The APU is supplemented by up to 8GB DDR3-1333

Graphics

For a miniature fanless system – Fit-PC3 provides extremely powerful graphics features:

- Dual-head DisplayPort (up to 2560x1600) and HDMI (up to 1920x1200) incl. audio
- HDMI 1.4 and stereo-3D support in Fit-PC3 Pro
- DirectX 11, OpenGL 4.0, Open CL
- 1080p Blu-Ray playback support, UVD 3 engine with native H.264, VC-1, MPEG2, and DivX

Low Power

The Fit-PC product line is recognised as the most power efficient in its category and Fit-PC3 is no exception. The T40E model consumes just 7W at Win7 when idling, or up to 15W under full system load with dual head display. Each model's consumption reflects the performance and efficiency of the corresponding APU.

I/O

Out-of-the-box Fit-PC3 provides interfaces unmatched by any computer of a similar size.

- Dual-head display HDMI + DisplayPort
- Digital 7.1 S/PDIF and analog 2.0 audio, both input and output
- Gigabit Ethernet
- WiFi 802.11 b/g/n + BT combo with dual antennas
- 2 USB3 ports + 2 USB2 ports
- 2 eSATA ports
- Bay for 2.5" SATA HDD
- 2 mini-PCle sockets / 1 mSATA
- Serial RS232 port
- IR Receiver

Modularity

Compactness and modularity are often contradicting design goals. Perhaps the most striking feature in the design of the Fit-PC3 is the degree of modularity and hardware serviceability without compromising on either size or looks of the device.

FACE Module (Function and Connectivity Extension Module)

The front-facing panel of Fit-PC3 can incorporate any custom functionality and I/O. Example:

- A FACE Module with 4 GbE ports and 6 USB ports for networking applications
- Combine GPIOs, ADCs, DACs and serial ports for instrumentation
- Add multiple frame-grabbers for a surveillance computer

FACE Module is implemented by an internal extension-board and a simple sheet-metal panel. CompuLab is designing multiple FACE Modules and opens the interface with complete documentation and reference designs for other companies to design their own FACE Module.

The I/O brought to the FACE Module resembles extensibility for a desktop:

- 4 PCIe lanes
- 6 USB2 + 2 USB 1.1
- 25 GPIOs
- 2 SATA
- 2 SMBus
- LPC



System and Graphics

Feature	Specifications				Notes
	Value	Basic	LP	Pro	
CPU	AMD G-T44R SINGLE CORE 1.2 GHz 9W	AMD G-T40N DUAL CORE 1.0 GHz 9W	AMD G-T40E DUAL CORE 1.0 GHz 6.4W	AMD G-T56N DUAL CORE 1.65 GHz 18W	
GPU	Radeon HD 6250	Radeon HD 6250	Radeon HD 6290	Radeon HD 6320	
RAM	Up to 8 GB, DDR3, 1333 MHz, 64-bit (two SO-DIMM sockets)				Configurable
Storage	Internal 2.5" hard disk				Configurable
	Two eSATA ports, up to 6 Gbit/s				
	mSATA (multiplexed with full-size mini PCIe socket)				
HDMI	HDMI 1.3a Up to 1920 x 1200 @ 60 Hz		HDMI 1.4a Up to 1920 x 1200 @ 60Hz		
HDMI Stereo 3D DisplayPort	-	-	-	+	
	Up to 2560 x 1600 at 60Hz				

I/O

Feature	Specifications	Notes
Audio	Stereo line-out and stereo line-in 7.1 channel S/PDIF, (electrical through 3.5mm jack)	
Network	1000 BaseT Ethernet port, activity LEDs, RJ-45 connector	Optional half-size Mini PCIe module
	802.11b/g/n Wi-Fi, 2 antennas, 150 Mbit/s	
	BT 3.0	
USB	Two USB 3.0 host ports, 5 Gbit/s	Optional FACE Module
	Two USB 2.0 host ports, 480 Mbit/s	
	Four USB 2.0 host ports, 480 Mbit/s in front	
RS232	Partial modem controls, ultra mini serial connector	
IR	Consumer IR receiver	
Expansion	Mini PCIe socket, half-size (used for wireless module)	Used for wireless module
	Mini PCIe socket, full-size, with mSATA support	
	Proprietary FACE Module (Function and Connectivity Extension Module):	
	4x PCIe lanes	
	6x USB2 + 2x USB 1.1	
	2x SATA	
	25x GPIOs	
	4x SMBus + 1 SPI	
	LPC	

Electrical and Mechanical

Feature	Specifications				Notes
Supply Voltage	Unregulated 8 to 16 volt input				
Power Consumption	AMD G-T44R	AMD G-T40E	AMD G-T40N	AMD G-T56N	Depends on System load
	TBD	7W – 15W	8W – 17W	9W – 24W	
Dimensions	16cm x 16cm x 2.5cm			19cm x 16cm x 4cm	



Block Diagram

