



GETAC A790 Info Pack

A790

Rugged Notebook

Introduction

The GETAC A790 is the latest ultra-rugged model of the GETAC rugged notebook family, designed and built to survive the harshest environments. Reliable and efficient operation is provided by a high performance 12.1" or 14.1" TFT sunlight-readable LCD, shock-mounted hard drive, and a wide range of ambient temperature features. This extremely rugged model not only meets MIL-STD-810F and IP54 but also satisfies critical EMI requirements. The A790 possesses extreme versatility and expandability, offering multi-bays for maximum flexibility and customized applications. Users have the luxury of expanding the storage capacity by populating the bays with two additional removable hard drives, and adding two auxiliary batteries for extended use. Complementing this rugged, multifunctional notebook is a state-of-the-art security package which includes a TPM 1.2 chip, a fingerprint biometric device, and a smart card reader. With multiple authentication capabilities, this reliable A790 will reject any unauthorised access and safely protect confidential information.

Multi-Bays

The obvious choice for a versatile, fully-ruggedized laptop is the GETAC A790. Its unique multi-bay features enhance the user's expansion capabilities, including such features as a Media bay, an X-bay, and an expansion unit. The GETAC A790 has a number of feature-rich options available, including DVD combo and DVD Dual, two RS232 ports, two PCMCIA slots, two PCI slots, two PCI-express slots, a smart card reader and a fixed floppy drive. The storage capacity may be increased by adding one more hard drive and the battery life may be extended with two auxiliary batteries.



Ultra Rugged

The GETAC A790 meets MIL-STD-810F and IP54 requirements. It is the most robust ultra-rugged portable notebook in the market. The fully magnesium alloy case and tough rubber corner bumpers allow the A790 to survive 3-foot drops on hardware floors. Designed with high-end rugged technology, the A790 is able to withstand severe vibration and shock conditions which may cause electronic circuit damage and loose connections.

Additionally, it is equipped with an “active protection function” that protects the hard drive from damages due to sudden drops. The fully sealed I/O caps and doors prevent solid particles and moisture from entering the unit and allows for continuous stable operation under extreme ambient temperatures (-20°C to 55°C) conditions.

Wireless Communication

The GETAC A790 is an ultimate mobile wireless device in itself, offering various choices for different operating scenarios. For example, its short-range Bluetooth and IrDA can transmit data from the A790 to another device. A built-in 802.11a/b/g Wi-Fi is used to connect to a Local Area Network, making it convenient for working away from the office. The Wide Area Network wireless options on the A790 are third generation mobile network devices, which include UMTS/HSPDA of Global System for Mobile Communications and CDMA2000 1x EV-DO for CDMA carriers as options. GPS is another available alternative. This machine is, without a doubt, the top preference for mobile solutions.

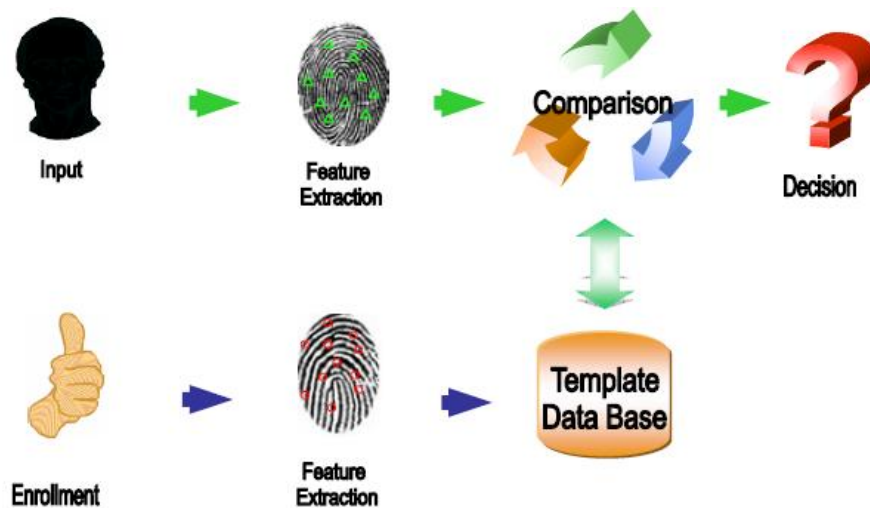
Trust Platform Module

The GETAC A790 is not only MIL-STD tough structurally, it also possesses amazing defensive capabilities. It is an embedded hardware-based security notebook with a Trust Platform Module (TPM). The basic core of the TPM is Root-of-Trust, which is a chain of trust procedures. From pre-boot to OS load, this micro-chip monitors every step to guard against unauthorized tampering from physical theft or software attack. TPM provides numerous powerful functionalities for storage security, authority, justification and integrity measurement.



Biometric Fingerprint Reader

The GETAC A790 may be equipped with an optional biometric authentication device that ensures a secure log-in password or access to sensitive information. Merely swiping your unique fingerprint on the scanner when a password or username is required eliminates the need to remember passwords. The GETAC A790 is a rugged notebook that possesses the highest level of security protection in the world. Employing TPM with fingerprint recognition provides two walls of protection for a much higher level of authentication security.



Sunlight-Readable Panel

The A790 provides cutting-edge technology with its 12.1" or 14.1" high-resolution Sunlight-Readable LCD, which is designed to operate under bright ambient lighting conditions. GETAC's Sunlight-Readable solution has made a breakthrough in intensifying the LCD's visibility, making it more readable and usable under extremely bright environments.

Vehicle Dock

GETAC developed a robust vehicle dock for the A790. The dock offers very secure, stable and reliable features for the A790 when installed in various vehicles. The dock's isolator counteracts several vibration and shock caused by erratic road conditions, keeping the A790 firmly seated on the vehicle dock even in violent crashes or emergency braking situations. The dock is equipped with a full range voltage (12-32V) power supply, making it suitable for installation in a wide range of mobile applications. I/O replication is also available.



Key Features of the A790

- Ø Tested & Certified MIL-STD 810F
- Ø Tested & Certified MIL-STD 461E
- Ø Multi-bay Expandability
- Ø Die-Cast Magnesium Alloy Casting
- Ø Fan-less Design
- Ø Individually Sealed Ports
- Ø Optional PCI/ISA Expansion Chassis
- Ø Hot Swappable Batteries



Front View



- 1 Panel**
 - 12.1"/14.1" XGA LCD
 - Touch Screen
 - Sunlight Readable
- 2 Keyboard**
 - Water/Dust Proof
 - Backlight Keyboard
- 3 Speakers**
- 4 Touch Pad**
 - Water/Dust Proof
 - Glove-used Pad

Right Side View



- 1 Hard Drive**
 - Removable
 - Shock Mount
 - -20C Support
- 2 Media Bay I/O Ports**
 - PCMCIA Type II x 2 or Type III x 1
 - IEEE 1394B
 - Microphone In
 - Audio Out
- 3 Media Bay Options**
 - Combo/DVD Dual
 - Removable FDD
 - Hot Swappable Battery
 - Removable 2nd HDD

Left Side View



- 1 Main Battery**
 - 6 hours Life
 - Hot Swappable
 - -20C Support
- 2 X-Bay Versatile Options**
 - PCMCIA Type II x 2 or Type III x 1
 - RS 232 x 2 or RS 422 x 2
 - 3rd Battery
 - 2nd FDD
 - Smart Card Reader
 - HSDPA/EV-DO
 - Bluetooth v2.0
 - GPS
 - Ultra SCSI 320

Rear View



- 1 DC In
- 2 USB 2.0 x 2
- 3 Docking Port
- 4 RJ-11/Modem
- 5 RJ-45(10/100/1000 base-T)
- 6 VGA
- 7 Parallel Port
- 8 Serial Port
- 9 IrDA

Expansion Bay



- Expansion Unit Options
 - ISA Slot x 2
 - PCI Slot x 2
 - PCI-Express Slot x 2



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System Specifications

Rev.: R04

Issue date: 2008/10/04

Model		A790	Remark
Processor	Intel® Core™ Duo LV Processor	1.66 GHz	Processor number* ≤ 2400
	FSB	667 MHz	
	2 nd Level Cache	2M	
Chipset	Northbridge	Intel® 945GM	
	Southbridge	ICH7-M	
Memory	DDR2 (SO-DIMM x 2)	512MB	Max.: 2GB
VGA Controller		Intel® GMA 950 graphics controller	128MB shared RAM
Display	TFT LCD	12.1" or 14.1" XGA (1024 x 768)	Option: Sunlight Readable
			Option: Touch screen
Storage	IDE HDD	80GB or above	Option: SATA HDD 80GB or above
			Factory Option: Low temperature –20° *
Swappable Media Bay		Floppy Disk	
Keyboard		Water proof keyboard	Option: Backlight water proof keyboard
Touch pad		Capacitance Type	Option: Glove Used Touch Pad
PCMCIA		Type II x 2 or Type III x 1	
Audio	Azalia 32 bits audio digital controller		
	Speaker (2W x 2		
I/O Port	Serial Port x 1	RJ-11 x 1	
	USB 2.0 x 2	Microphone x 1	
	External VGA x 1	Line out x 1	
	1394B x 1	IrDA x 1	
	Parallel port x 1	Docking port x 1	
	RJ-45 x 1	DC in x 1	
	Communication		10/100/1000 base-T Ethernet
		56K ITU V.92 modem	
		Intel® PRO/Wireless 3945 a/b/g	Factory Option
Security	TPM 1.2		Factory Option
	Fingerprint		Factory Option
	Kensington lock		
Power Supply	AC Adaptor	90 Watts, Input 100-240v, 50/60Hz AC	
	Primary Battery	9600 mA/H Li-Ion Smart battery	Option: Low temperature –20° *
Operating System		Windows XP* One button recovery	
Physical	12.1" Dimension / Weight	13 x 11.1 x 3.8 (in) 12.6 (lbs)	with HDD/FDD/Primary Battery
	14.1" Dimension / Weight	13 x 10.1 x 3.8 (in) 13 (lbs)	

Accessory Options		
External Device Option	External USB Floppy	
	3pcs Battery Charger	
	Port Replicator	
	ISA Exoansion Unit (x 2 Slots)	
	PCI Expansion Unit (x 2 Slots)	
	PCI-Express Expasion Unit (x 2 Slots)	
Swappable Media Bay Option	DVD Combo	
	DVD Dual	
	2 nd HDD (USB to IDE) 80/120 GB	
Power Supply Option	4200mAH Media Bay Battery Pack	
	4200mAH X-Bay Battery Pack	• Option: Low Temperature -20•
	Vehicle Adapter (90Watts, 12 - 32 V)	
X Bay Option	RS232/422	
	Ultra320 SCSI	
	2 nd PCMCIA (Type II x 2 or Type III x 1)	
	2 nd FDD	
	Smart Card Reader	
	Bluetooth (v2.0 class 2)	
	GPS (with mouse type antenna)	
	CDMA/CDMA2000 1x/CDMA2000 EV-DO	
	GSM/GPRS/EDGE/UMTS/WCDMA/HSDPA	
Mounting Option	Vehicle Dock	
	Vehicle Mount	
	Shock Mount	
	Ultra Shock Mount	
Carrying Bag Option	Carrying Bag	

A-series Vehicle Dock Specifications

I/O port	DC Input	x 1
	BNC Video Capture	x 1
	USB 2.0	x 2
	Parallel EPP/ECP Port	x 1
	Serial Port	x 2
	VGA Monitor	x 1
Temperature	Operating:	-20° to 55°C
	Non-Operating:	-40° to 70°C
Humidity	5% ~ 95% RH, non-condensing	
Altitude	Operating:	15,000ft
	Non-Operating:	40,000ft
	Altitude Change Rate:	2,000 ft/min
Shock	Operating:	15g, 11ms, half sine wave
	Non-Operating:	50g, 11ms, half sine wave
Vibration	Operating:	10~55Hz/0.075, 55~500Hz/1.0g
	Non-Operating:	10~55Hz/0.150, 55~500Hz/2.0g
Crash Test	64 km/hr (~40 mph) or Higher Vehicle Speed	
Dimension	13.2 x 12.3 x 8.6 (in)	
Weight	24.5 (lbs)	
Accessories	12-32V 90W Vehicle Adapter	
	Lock Key x 2	
Features	Auto Power on with Ignition	
	90W Car Adapter Capable of Charging Battery	
	Power on Indicators	

Environmental Test Specifications

Item	Test Criteria
Temperature	According to IEC 68-2-1,2,14 / MIL-STD-810F, Method 501.4, 502.4
	<ul style="list-style-type: none"> • Operating: 0° to 55°C -20° to 55°C (low temperature option) • Non-operating: -40° to 70°C
Humidity	According to IEC 68-2-30 / MIL-STD-810F, Method 507
	45% to 95% RH, non-condensing
Altitude	According to IEC 68-2-13/ MIL-STD-810F, Method 500.4
	<ul style="list-style-type: none"> • Operating: 15,000 ft • Non-operating: 40,000 ft • Altitude change rate: 2,000 ft/min
Shock	According to IEC 68-2-27/ MIL-STD-810F, Method 516.5
Drop	According to IEC 68-2-32 / MIL-STD-810F, Method 516.5
Vibration	According to IEC 68-2-6 / MIL-STD-810F, Method 514.5
ESD	According to IEC1000-4-2
Enclosure	According to IEC 529, NEMA, MIL-STD-810F, Method 506.4, 510.4
	IP 54 compliance
Regulation	FCC,UL,CUL,DGT,CE,CB,CCC,WHQL,BSMI,e-Mark,ATEX
Others	MIL-STD-461E(option)