







rugged computers for the outside world



Rugged Toughbook® Models						
Model Name	Toughbook 01	Mobile Data Wireless Display with Toughbook 07 ⁱ	Toughbook 18	Toughbook 28	Toughbook 34	Toughbook PDR
CPU	<ul style="list-style-type: none"> Intel® Strong ARM® SA-1110 Microprocessor 206MHz 16KB I-cache, 8KB D-cache Companion Chip: MediaQ LCD and Peripheral Controller 	Toughbook 07 Mini PC <ul style="list-style-type: none"> Low Voltage Mobile Intel® Pentium® III Processor 300MHz 256KB on-die L2 cache 	<ul style="list-style-type: none"> Ultra Low Voltage Intel® Pentium® M Processor 900MHz 1MB on-die L2 cache 	<ul style="list-style-type: none"> Low Voltage Mobile Intel® Pentium® III Processor-M 1GHz or 800MHz featuring Enhanced Intel® SpeedStep™ technology 512KB on-die L2 cache 	<ul style="list-style-type: none"> Ultra Low Voltage Mobile Intel® Pentium® III Processor-M 866MHz featuring Enhanced Intel® SpeedStep™ technology 512KB on-die L2 cache 	
Storage & Memory	<ul style="list-style-type: none"> 32MB SDRAM with Microsoft® Windows® CE 3.0 or 64MB SDRAM with Microsoft® Pocket PC 2002 32MB Flash EPROM 	Toughbook 07 Mini PC <ul style="list-style-type: none"> 128MB SDRAM standard, expandable to 256MB 5GB HDD 	<ul style="list-style-type: none"> 256MB SDRAM (DDR) standard, expandable to 768MB 40GB HDD 	<ul style="list-style-type: none"> 256MB SDRAM standard, expandable to 512MB (PC133 memory is required) 30GB HDD 1.44MB FDD [also accepts Combo Drive (DVD-ROM*/CD-RW**)] 	<ul style="list-style-type: none"> 256MB SDRAM standard, expandable to 768MB 30GB HDD 	<p>The PDR is compatible with select models of either the Toughbook 28 or Toughbook 34*****</p>
Display	<ul style="list-style-type: none"> 3.5" 240 x 320 (QVGA) reflective, sunlight-readable TFT Active Matrix Color frontlit LCD with Touchscreen 	Mobile Data Wireless Display (MDWD) <ul style="list-style-type: none"> 8.4" 800 x 600 (SVGA) transmissive, sunlight-readable TFT Active Matrix Color LCD with Touchscreen or 8.4" 800 x 600 (SVGA) high-bright, sunlight-readable TFT Active Matrix Color LCD with Touchscreen 	<ul style="list-style-type: none"> Touchscreen PC version: 10.4" 1024 x 768 (XGA) transmissive, anti-reflective, outdoor-readable TFT Active Matrix Color LCD Tablet PC version: 10.4" 1024 x 768 (XGA) transmissive, anti-reflective, outdoor-readable TFT Active Matrix Color LCD with Digitizer External video support up to 1280 x 1024 (16 million colors) Intel® 855GM graphic controller, UMA (Unified Memory Access) up to 64MB 	<ul style="list-style-type: none"> 13.3" 1024 x 768 (XGA) transmissive, anti-reflective, outdoor-readable TFT Active Matrix Color LCD with or without Touchscreen or 12.1" 800 x 600 (SVGA) transmissive, sunlight-readable TFT Active Matrix Color LCD with Touchscreen External video support up to 1024 x 768 at 16 million colors (24 bit color depth) Intel® 830M graphic controller, UMA (Unified Memory Access) up to 32MB 	<ul style="list-style-type: none"> 8.4" 800 x 600 (SVGA) transmissive, sunlight-readable TFT Active Matrix Color LCD with Touchscreen or 8.4" 800 x 600 (SVGA) transmissive High-Bright, outdoor-readable TFT Active Matrix Color LCD with Touchscreen External video support up to 1280 x 1024 at 16 million colors (24 bit color depth) 	<p>The PDR® (Permanent Display Removable Computer) offers the reliability of a fixed-mounted display and keyboard system with the flexibility of a removable notebook PC.</p>
PC Card Slot/Expansion	<ul style="list-style-type: none"> Secure Digital (SD) Card/Multimedia Card x 1 	Toughbook 07 Mini PC <ul style="list-style-type: none"> Type I or Type II x 1 	<ul style="list-style-type: none"> Type II x 2 [Type II x 1 + SmartCard Reader x 1(option)] 	<ul style="list-style-type: none"> Type II x 2 or Type III x 1 	<ul style="list-style-type: none"> Type II x 1 	
Multimedia Pocket				<ul style="list-style-type: none"> Holds 3.5" FDD (standard) Accepts optional Combo Drive (DVD-ROM*/CD-RW**) (CF-VDR282U) Combo Drive and FDD can be used simultaneously (w/FDD cable CF-VCF271) Accepts optional 2nd battery pack (CF-VZSU1428W) Accepts Telephone Line Tester Modules 		
Wireless LAN			<ul style="list-style-type: none"> Intel® PRO/Wireless 2100 network connection 802.11b 			
Interface [†]	<ul style="list-style-type: none"> Infrared IrDA SIR - 115.2Kbps Expansion Connector - 16 pin Headphones/Speaker (Mini-jack) 	Toughbook 07 Mini PC <ul style="list-style-type: none"> Mini-USB (with adapter) 4 pin Serial D-sub 9 pin Wireless Display 802.11b Port Replicator 100 pin 	<ul style="list-style-type: none"> Modem Integrated 56Kbps V.92 Compliant, RJ11 Network Interface Card 100BASE-TX/10BASE-T, RJ45 Serial Port D-sub 9 (Touchscreen PC version only) External Video D-sub 15 USB 2.0 x 2 4 pin Headphones/Speaker Mini-jack Stereo Microphone/Line In Mini-jack Mono 	<ul style="list-style-type: none"> Infrared 4Mbps IrDA Serial D-sub 9 pin Parallel D-sub 25 pin External Keyboard/Mouse Mini-DIN 6 pin USB 4 pin Port Replicator 80 pin (Reinforced) Headphones/Speaker Mini-jack Stereo Microphone/Line In Mini-jack Modem Integrated 56Kbps External Video Mini-D-sub 15 pin 	<ul style="list-style-type: none"> Network Interface Card Integrated 10/100 ethernet Modem Integrated 56Kbps Serial D-sub 9 pin USB 4 pin Headphones/Speaker Mini-jack Stereo Microphone Mini-jack Port Replicator Dedicated 4 pin 	
Power Supply	<ul style="list-style-type: none"> Lithium Ion Rechargeable Battery (1400mAh/7.4V) Battery operation: up to 8 hours (Frontlight on), up to 12 hours (Frontlight off)*** Battery charging time: approximately 3 hours*** AC Adapter: AC 100V-240V 50/60Hz, Auto-sensing/switching worldwide power supply Sub-Battery: Lithium Rechargeable Backup Battery (50mAh/3.0V) 	Mobile Data Wireless Display (MDWD) <ul style="list-style-type: none"> Lithium Ion battery pack (1800mAh/7.4V) Battery operation: up to 4 hours (Backlight off), up to 2 hours (Backlight on, Low), up to 1.5 hours (Backlight on, High)*** Battery charging time: approximately 2 hours (Backlight off), 5 hours (Backlight on)*** Toughbook 07 Mini PC <ul style="list-style-type: none"> Dual Lithium Ion battery pack (1800mAh/7.4V) Battery operation: up to 4 hours*** Battery charging time: approximately 4 hours/off, 4 - 10 hours/on*** AC Adapter: AC 100V-240V 50/60Hz, Auto-sensing/switching worldwide power supply Field replaceable/quick access battery 	<ul style="list-style-type: none"> Lithium Ion battery pack (7.4V, 6600mAh) Battery operation: up to 6 hours*** Battery charging time: approximately 3.5 hours/off, 7 hours on*** AC Adapter: AC 100V-240V 50/60Hz, Auto-sensing/switching worldwide power supply 	<ul style="list-style-type: none"> Lithium Ion battery pack (11.1V, 5.4Ah) Battery operation: up to 4 hours (with first battery), up to 10 hours (with second battery)*** Battery charging time: approximately 3 hours/off, 5.5 hours/on*** AC Adapter: AC 100V-240V 50/60Hz, Auto-sensing/switching worldwide power supply Quick access battery/HDD cover for easy battery replacement Pop-up on-screen battery status reporting 	<ul style="list-style-type: none"> Lithium Ion battery pack (11.1V, 4.0Ah) Battery operation: up to 4 hours*** Battery charging time: approximately 3.5 hours/off, 7 hours/on*** AC Adapter: AC 100V-240V 50/60Hz, Auto-sensing/switching worldwide power supply Pop-up on-screen battery status reporting 	
Software	<ul style="list-style-type: none"> Microsoft® Windows® CE 3.0 or Microsoft® Pocket PC 2002 Setup, Diagnostics 	Toughbook 07 Mini PC <ul style="list-style-type: none"> Microsoft® Windows® XP Professional or 2000 Professional Setup, Diagnostics, DMI Viewer, On-line Reference Manual, Adobe® Acrobat® Reader, Software Keyboard 	<ul style="list-style-type: none"> Touchscreen PC version: Microsoft® Windows® XP Professional or 2000 Professional, Setup, On-line Reference Manual, Adobe® Acrobat® Reader, DMI Viewer, Panasonic Handwriting, Software Keyboard, Display Rotation Tool, Hard Disk Data Erase Utility Tablet PC version: Microsoft® Windows® XP Tablet PC Edition only, Setup, On-line Reference Manual, Adobe® Acrobat® Reader, DMI Viewer, Display Rotation Tool, Hard Disk Data Erase Utility 	<ul style="list-style-type: none"> Microsoft® Windows® XP Professional or 2000 Professional Setup, Diagnostics, DMI Viewer, On-line Reference Manual, Adobe® Acrobat® Reader, Panasonic® Battery Monitor 	<ul style="list-style-type: none"> Microsoft® Windows® XP Professional or 2000 Professional Setup, Diagnostics, DMI Viewer, On-line Reference Manual, Adobe® Acrobat® Reader, Panasonic® Battery Monitor 	
Warranty	<ul style="list-style-type: none"> 1 year limited warranty, parts & labor 	Mobile Data Wireless Display (MDWD) <ul style="list-style-type: none"> 3 year limited warranty, parts & labor Toughbook 07 Mini PC <ul style="list-style-type: none"> 3 year limited warranty, parts & labor 	<ul style="list-style-type: none"> 3 year limited warranty, parts & labor 	<ul style="list-style-type: none"> 3 year limited warranty, parts & labor 	<ul style="list-style-type: none"> 3 year limited warranty, parts & labor 	
Dimensions & Weight	<ul style="list-style-type: none"> 1.6"(H) x 3.9"(D) x 6.8"(W) 1 lb. 	Mobile Data Wireless Display (MDWD) <ul style="list-style-type: none"> 8.7"(H) x 1.2"(D) x 6.4"(W) 1.5 lbs. Toughbook 07 Mini PC <ul style="list-style-type: none"> 7.9"(H) x 2.1"(D) x 3.6"(W) 2.1 lbs. 	<ul style="list-style-type: none"> 1.9"(H) x 8.5"(D) x 10.7"(W) 4.5 lbs. 	<ul style="list-style-type: none"> 2.3"(H) x 9.5"(D) x 11.8"(W) 9 lbs., including battery, FDD and handle 	<ul style="list-style-type: none"> 1.7"(H) x 7.4"(D) x 9.0"(W) 3.8 lbs., including battery and hand strap 	
Integrated Options****	<ul style="list-style-type: none"> 802.11b Wireless LAN - Symbol® Wide Area Wireless Solutions - CDPD - Mobitex (Cingular™ Wireless) (availability may vary) Global Positioning System (GPS) Receiver Barcode Scanner 1xRTT/CDMA 2000 (availability may vary) GSM/GPRS with external SIM slot (availability may vary) 	<ul style="list-style-type: none"> Wireless Solutions - CDPD - Mobitex (Cingular™ Wireless) (availability may vary) 	<ul style="list-style-type: none"> Wide Area Wireless Solutions - 1xRTT/CDMA 2000 (availability may vary) - GSM/GPRS with external SIM slot (availability may vary) Bluetooth™ (availability may vary) SmartCard Reader Global Positioning System (GPS) Receiver Backlit keyboard 	<ul style="list-style-type: none"> Wired LAN (10/100 ethernet)***** 802.11b Wireless LAN***** - Cisco Aironet - Lucent Orinoco Global Positioning System (GPS) Receiver Full Travel EL Backlit Keyboard Sealed Rubber LED Backlit Keyboard Wide Area Wireless Solutions - CDPD - Mobitex (Cingular™ Wireless) (availability may vary) GSM/GPRS with external SIM slot (availability may vary) 1xRTT/CDMA 2000 (availability may vary) 	<ul style="list-style-type: none"> 802.11b Wireless LAN - Cisco Aironet - Agere™ Global Positioning System (GPS) Receiver Wide Area Wireless Solutions - Mobitex (Cingular™ Wireless) (availability may vary) GSM/GPRS with external SIM slot (availability may vary) 1xRTT/CDMA 2000 (availability may vary) 	<ul style="list-style-type: none"> Dual integrated speakers with adjustable volume 3 year limited warranty, parts and labor

*Decoder software is required for DVD movie play. (Included) **CD authoring software is required to write CD-R/RW. (Included) ***Battery performance features such as charge time and life span can vary according to the conditions under which the computer and battery are used. Battery operation and recharge times will vary based on many factors including screen brightness, applications, features, power management, battery conditioning and other customer preferences. ****Integrated Options may vary depending on your notebook configuration.







*****Choosing both the Integrated Wired LAN and Integrated 802.11b Wireless LAN options together means that the 56Kbps Modem cannot be added as an option due to hardware space limitations.

*****Consult your reseller or Panasonic representative for specific information on notebook PC models compatible with the PDR system. †Toughbook 07 configuration requires purchase of port replicator (CF-VEB071W).

Please consult your reseller or Panasonic representative before purchasing.

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Semi-rugged Toughbook® Models							
Model Name	Toughbook 48	Toughbook 50	Toughbook 72	Toughbook 73	Toughbook T2	Toughbook W2	
CPU	<ul style="list-style-type: none"> Intel® Pentium® M Processor 1.4GHz 1MB on-die L2 cache 	<ul style="list-style-type: none"> Intel® Pentium® M Processor 1.4GHz or 1.6GHz featuring Enhanced Intel® SpeedStep™ technology 1MB on-die L2 cache 	<ul style="list-style-type: none"> Mobile Intel® Pentium® 4 Processor-M 1.8GHz featuring Enhanced Intel® SpeedStep™ technology 512KB on-die L2 cache 	<ul style="list-style-type: none"> Intel® Pentium® M Processor 1.4GHz 1MB on-die L2 cache 	<ul style="list-style-type: none"> Ultra Low Voltage Intel® Pentium® M Processor 900MHz 1MB on-die L2 cache 	<ul style="list-style-type: none"> Ultra Low Voltage Intel® Pentium® M Processor 900MHz 1MB on-die L2 cache 	
Storage & Memory	<ul style="list-style-type: none"> 256MB SDRAM (DDR) standard, expandable to 768MB (PC-2100 memory is required) 40GB HDD (shock-mounted & easily removable) Integrated 1.44MB FDD standard Combo Drive (DVD-ROM*/CD-RW**) standard Optional SmartCard Reader Optional DVD Multi Drive (DVD-RAM/DVD-ROM*/DVD-RW/CD-R/CD-ROM/CD-RW**) 	<ul style="list-style-type: none"> With 1.6GHz Processor: <ul style="list-style-type: none"> 512MB SDRAM standard, expandable to 1GB (PC-2100 memory is required) 60GB HDD (shock-mounted & easily removable) Integrated 1.44MB FDD and Combo Drive (DVD-ROM*/CD-RW**) standard; optional DVD Multi-Drive (DVD-RAM/DVD-ROM*/DVD-RW/CD-R/CD-ROM/CD-RW**) With 1.4GHz Processor: <ul style="list-style-type: none"> 256MB SDRAM standard, expandable to 768MB (PC-2100 memory is required) 40GB HDD (shock-mounted & easily removable) Integrated 1.44MB FDD and Combo Drive (DVD-ROM*/CD-RW**) standard; optional DVD Multi-Drive (DVD-RAM/DVD-ROM*/DVD-RW/CD-R/CD-ROM/CD-RW**) 	<ul style="list-style-type: none"> 256MB SDRAM (DDR) standard, expandable to 768MB (PC-2100 memory is required) 30GB HDD 1.44MB FDD standard DVD-ROM Drive* standard 	<ul style="list-style-type: none"> 256MB or 512MB SDRAM (DDR) standard, expandable to 768MB or 1GB (PC-2100 memory is required) 40GB HDD Combo Drive (DVD-ROM*/CD-RW**) standard 	<ul style="list-style-type: none"> 256MB SDRAM (DDR) standard, expandable to 512MB (PC-2100 memory is required) 40GB HDD 	<ul style="list-style-type: none"> 256MB SDRAM (DDR) standard, expandable to 512MB (PC-2100 memory is required) 40GB HDD Combo Drive (DVD-ROM*/CD-RW**) standard 	<ul style="list-style-type: none"> 256MB SDRAM (DDR) standard, expandable to 512MB (PC-2100 memory is required) 40GB HDD Combo Drive (DVD-ROM*/CD-RW**) standard
Display	<ul style="list-style-type: none"> 14.1" 1024 x 768 (XGA) TFT Active Matrix Color LCD External video support up to 2048 x 1536 (32 bit color depth) ATI Mobility RADEON 9000 video controller, 64MB VRAM 	<ul style="list-style-type: none"> With 1.6GHz Processor, 15" 1600 x 1200 (UXGA) TFT Active Matrix Color LCD With 1.4GHz Processor, 15" 1024 x 768 (XGA) TFT Active Matrix Color LCD External video support up to 2048 x 1536 at 4 billion colors (32 bit color depth) ATI Mobility RADEON 9000 	<ul style="list-style-type: none"> 13.3" 1024 x 768 (XGA) transmissive outdoor-readable, anti-reflective TFT Active Matrix Color LCD with or without Touchscreen External video support up to 2048 x 1536 at 4 billion colors (32 bit color depth) ATI Mobility RADEON 7500 video controller, 32MB VRAM 	<ul style="list-style-type: none"> 13.3" 1024 x 768 (XGA) transmissive outdoor-readable, anti-reflective TFT Active Matrix Color LCD with Touchscreen External video support up to 2048 x 1536 at 4 billion colors (32 bit color depth) ATI Mobility RADEON 7500, 32MB VRAM 	<ul style="list-style-type: none"> 12.1" 1024 x 768 XGA anti-glare TFT Active Matrix Color LCD with or without Touchscreen External video support up to 1600 x 1200 at 16 million colors Intel® 855GM integrated video controller max. 64MB (UMA) VRAM 	<ul style="list-style-type: none"> 12.1" 1024 x 768 XGA anti-glare TFT Active Matrix Color LCD External video support up to 1600 x 1200 at 16 million colors Intel® 855GM integrated video controller max. 64MB (UMA) VRAM 	<ul style="list-style-type: none"> 12.1" 1024 x 768 XGA anti-glare TFT Active Matrix Color LCD External video support up to 1600 x 1200 at 16 million colors Intel® 855GM integrated video controller max. 64MB (UMA) VRAM
PC Card Slot/Expansion	<ul style="list-style-type: none"> Type II x 2 or Type III x 1 	<ul style="list-style-type: none"> Type II x 2 or Type III x 1 	<ul style="list-style-type: none"> Type I or II x 2 or Type III x 1 	<ul style="list-style-type: none"> Type I or II x 2 or Type III x 1 	<ul style="list-style-type: none"> Type I or II x 1 Secure Digital (SD) Memory/Multimedia Card 	<ul style="list-style-type: none"> Type I or II x 1 Secure Digital (SD) Memory/Multimedia Card 	
Multimedia Pocket			<ul style="list-style-type: none"> Holds 1.44MB FDD (standard) Holds 8X (max) DVD-ROM Drive* (standard) Accepts optional Battery Pack Adapter***** (CF-VAB721W) Accepts optional Hard Disk Drive (CF-VHD7230U) Hot-swappable 	<ul style="list-style-type: none"> Holds Combo Drive (DVD-ROM*/CD-RW**) (standard) Accepts DVD Multi Drive (CF-VDM731U) 			
Wireless LAN	<ul style="list-style-type: none"> Intel® PRO/Wireless 2100 network connection 802.11b 	<ul style="list-style-type: none"> Intel® PRO/Wireless 2100 network connection 802.11b 		<ul style="list-style-type: none"> Intel® PRO/Wireless 2100 network connection 802.11b 	<ul style="list-style-type: none"> Intel® PRO/Wireless 2100 network connection 802.11b 	<ul style="list-style-type: none"> Intel® PRO/Wireless 2100 network connection 802.11b 	
Interface	<ul style="list-style-type: none"> Network Interface Card Integrated 10/100 ethernet Modem Integrated 56Kbps V.92 compliant Serial D-sub 9 pin (UART 16550 compatible) Parallel D-sub 25 pin (bi-directional/ECP) External Video D-sub 15 pin External Keyboard/Mouse Mini-DIN 6 pin Port Replicator Dedicated 100 pin USB 2.0 x 2 4 pin Headphones/Speaker Mini-jack Stereo Microphone/Line In Mini-jack 	<ul style="list-style-type: none"> Network Interface Card Integrated 10/100 ethernet Modem Integrated 56Kbps Serial D-sub 9 pin (UART 16550 compatible) Parallel D-sub 25 pin (bi-directional/ECP) External Video D-sub 15 pin External Keyboard/Mouse Mini-DIN 6 pin Port Replicator Dedicated 100 pin USB 2.0 x 2 4 pin Headphones/Speaker Mini-jack Stereo Microphone/Line In Mini-jack IEEE 1394 (Firewire) 4 pin 	<ul style="list-style-type: none"> Network Interface Card Integrated 10/100 ethernet Modem Integrated 56Kbps Infrared 4Mbps IrDA Serial D-sub 9 pin (UART 16550 compatible) Parallel D-sub 25 pin (bi-directional/ECP) External Video Mini-D-sub 15 pin External Keyboard/Mouse Mini-DIN 6 pin USB 2.0 x 2 4 pin Port Replicator Dedicated 100 pin Headphones/Speaker Mini-jack Stereo Microphone/Line In Mini-jack 	<ul style="list-style-type: none"> Network Interface Card Integrated 10/100 ethernet Modem Integrated 56Kbps V.92 compliant Serial D-sub 9 pin (UART 16550 compatible) External Video D-sub 9 pin (UART 16550 compatible) USB 2.0 x 2 4 pin Port Replicator Dedicated 80 pin Headphones/Speaker Mini-jack Stereo Microphone/Line In Mini-jack IO Box Port 36 pin 	<ul style="list-style-type: none"> Network Interface Card Integrated 10/100 ethernet Modem Integrated 56Kbps External Video D-sub 15 pin via included cable USB 2.0 x 2 4 pin Headphones/Speaker Mini-jack Stereo Microphone/Line In Mini-jack Mono 	<ul style="list-style-type: none"> Network Interface Card Integrated 10/100 ethernet Modem Integrated 56Kbps External Video D-sub 15 pin USB 2.0 x 2 4 pin Headphones/Speaker Mini-jack Stereo Microphone/Line In Mini-jack Mono 	
Power Supply	<ul style="list-style-type: none"> Lithium Ion battery pack (11.1V, 6300mAh) Battery operation: up to 5.5 hours*** Battery charging time: approximately 3.5 hours/off, 6.0 hours/on*** AC Adapter: AC 100V-240V 50/60Hz, Auto-sensing/switching worldwide power supply Pop-up on-screen battery status reporting 	<ul style="list-style-type: none"> Lithium Ion battery pack (11.1V, 6300mAh) Battery operation: up to 3.5 hours*** Battery charging time: approximately 3 hours/off, 5.5 hours/on*** AC Adapter: AC 100V-240V 50/60Hz, Auto-sensing/switching worldwide power supply Pop-up on-screen battery status reporting 	<ul style="list-style-type: none"> Lithium Ion rechargeable battery pack (11.1V, 3.6Ah) Battery operation: up to 2.5 hours (with first battery), up to 4.5 hours (with second battery)*** Battery charging time: approximately 3.5 hours/off, 3.5 hours/on*** AC Adapter: AC 100V-240V 50/60Hz, Auto-sensing/switching worldwide power supply Intelligent power measurement for precise battery status reporting Pop-up on-screen battery status reporting 	<ul style="list-style-type: none"> Lithium Ion rechargeable battery pack (11.1V, 3.8Ah) Battery operation: up to 5.5 hours*** Battery charging time: approximately 3 hours/off, 3 hours/on*** AC Adapter: AC 100V-240V 50/60Hz, Auto-sensing/switching worldwide power supply Intelligent power measurement for precise battery status reporting Pop-up on-screen battery status reporting 	<ul style="list-style-type: none"> Lithium Ion battery pack (7.4V, 4400mAh) Battery operation: up to 4 hours*** Battery charging time: approximately 3 hours*** AC Adapter: AC 100V-240V 50/60Hz, Auto-sensing/switching worldwide power supply Pop-up on-screen battery status reporting 	<ul style="list-style-type: none"> Lithium Ion battery pack (7.4V, 6600mAh) Battery operation: up to 4 hours*** Battery charging time: approximately 4.5 hours*** AC Adapter: AC 100V-240V 50/60Hz, Auto-sensing/switching worldwide power supply Pop-up on-screen battery status reporting 	
Software	<ul style="list-style-type: none"> Microsoft® Windows® XP Professional or 2000 Professional Setup, On-line Reference Manual, Adobe® Acrobat® Reader 	<ul style="list-style-type: none"> Microsoft® Windows® XP Professional or 2000 Professional Setup, Diagnostics, On-line Reference Manual, Adobe® Acrobat® Reader 	<ul style="list-style-type: none"> Microsoft® Windows® XP Professional or 2000 Professional Setup, Diagnostics, DMI Viewer, Battery Status Utility, Adobe® Acrobat® Reader, On-Line Reference Manual 	<ul style="list-style-type: none"> Microsoft® Windows® XP Professional or 2000 Professional Setup, DMI Viewer, Adobe® Acrobat® Reader, On-Line Reference Manual, Hard Disk Data Erase Utility 	<ul style="list-style-type: none"> Microsoft® Windows® XP Professional or 2000 Professional Setup, Diagnostics, On-line Reference Manual, Adobe® Acrobat® Reader 	<ul style="list-style-type: none"> Microsoft® Windows® XP Professional or 2000 Professional Setup, Diagnostics, On-line Reference Manual, Adobe® Acrobat® Reader 	<ul style="list-style-type: none"> Microsoft® Windows® XP Professional or 2000 Professional Setup, Diagnostics, On-line Reference Manual, Adobe® Acrobat® Reader
Warranty	<ul style="list-style-type: none"> 3 year limited warranty, parts & labor 	<ul style="list-style-type: none"> 3 year limited warranty, parts & labor 	<ul style="list-style-type: none"> 3 year limited warranty, parts & labor 	<ul style="list-style-type: none"> 3 year limited warranty, parts & labor 	<ul style="list-style-type: none"> 3 year limited warranty, parts & labor 	<ul style="list-style-type: none"> 3 year limited warranty, parts & labor 	<ul style="list-style-type: none"> 3 year limited warranty, parts & labor
Dimensions & Weight	<ul style="list-style-type: none"> 1.8"(H) x 10.2"(D) x 12.1"(W) 7.48 lbs., including battery 	<ul style="list-style-type: none"> 1.85"(H) x 10.9"(D) x 12.8"(W) 7.7 lbs., including battery 	<ul style="list-style-type: none"> Touchscreen model <ul style="list-style-type: none"> 1.9"(H) x 10.5"(D) x 11.7"(W) 7.11 lbs., including battery Non-Touchscreen model <ul style="list-style-type: none"> 1.8"(H) x 10.5"(D) x 11.7"(W) 6.4 lbs., including battery 	<ul style="list-style-type: none"> 1.7"(H) x 10"(D) x 11.7"(W) 4.9 lbs., including battery 	<ul style="list-style-type: none"> 1.7"(H) x 8.3"(D) x 10.6"(W) 2.6 lbs., including battery and hand strap 	<ul style="list-style-type: none"> 1.2"/1.6"(H) x 8.3"(D) x 10.6"(W) 2.8 lbs., including battery 	<ul style="list-style-type: none"> 1.2"/1.6"(H) x 8.3"(D) x 10.6"(W) 2.8 lbs., including battery
Integrated Options****	<ul style="list-style-type: none"> SmartCard Reader DVD Multi Drive 	<ul style="list-style-type: none"> SmartCard Reader DVD Multi Drive 	<ul style="list-style-type: none"> SmartCard Reader Wide Area Wireless Solutions <ul style="list-style-type: none"> CDPD Mobitex (Cingular™ Wireless) (availability may vary) 802.11b Wireless LAN <ul style="list-style-type: none"> Cisco Aironet 	<ul style="list-style-type: none"> SmartCard Reader Wide Area Wireless Solutions <ul style="list-style-type: none"> GSM/GPRS with external SIM slot (availability may vary) 1xRTT/CDMA 2000 (availability may vary) Bluetooth™ (availability may vary) 			

*Decoder software is required for DVD movie play. (Included) **CD authoring software is required to write CD-R/RW. (Included) ***Battery performance features such as charge time and life span can vary according to the conditions under which the computer and battery are used. Battery operation and recharge times will vary based on many factors including screen brightness, applications, features, power management, battery conditioning and other customer preferences. **** Integrated Options may vary depending on your notebook configuration. *****Battery pack adapter option requires purchase of battery pack (CF-VZSU148W). Please consult your reseller or Panasonic representative before purchasing.