

DELLTM
LATITUDETM 2100
TECHNICAL GUIDE



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LATITUDE 2100 PRODUCT VIEWS AND TECHNICAL SPECIFICATIONS

Latitude 2100 Weight, Dimensions and Top View Detail

Starting weight is 2.91lbs/1.32kg* with a 3-cell battery

Preliminary Dimensions:

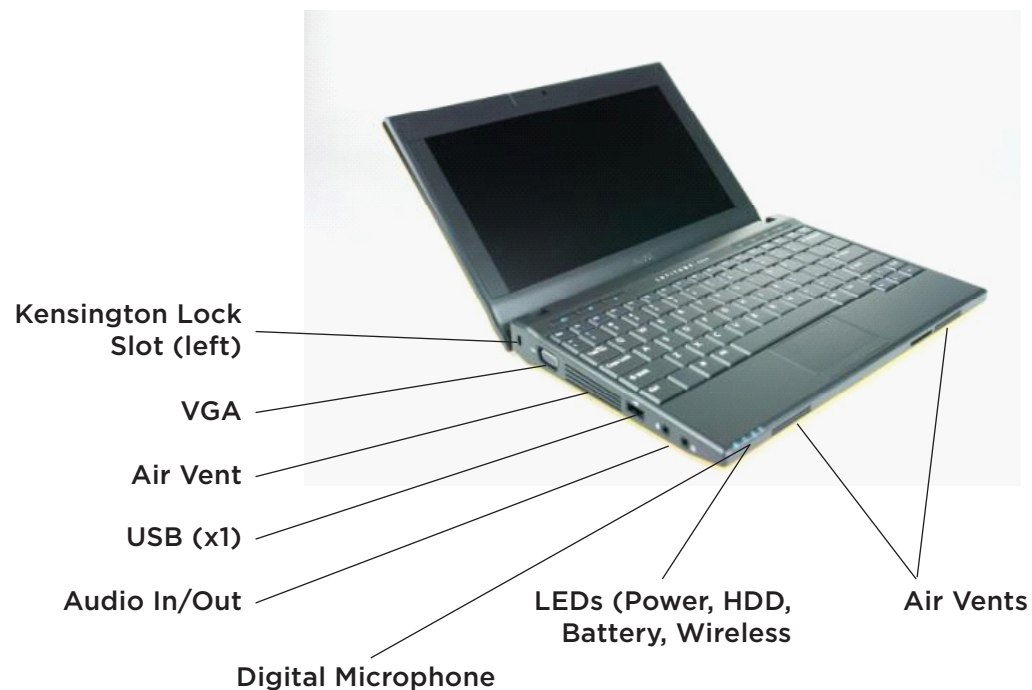
Width: 10.4"/265mm

Depth: 7.4"/187mm

Height: 0.89 -1.57"/22.5-39.9mm



Latitude 2100 Front and Back View Detail



Latitude 2100 Technical Specifications

Factors	Specs
Operating System	Genuine Windows Vista® Home Basic SP1 Genuine Windows® XP Home SP3 Ubuntu Linux version 8.10 FreeDos
Processor Type	Intel Atom N270 (1.60 GHz, 512KB L2 Cache, 533MHz FSB)
Chipset	Intel 945 GSE Chipset
Graphics	Intel Integrated Graphics Media Accelerator (GMA) 950
Display	10.1" WSVGA (1024 x 576) LED Display 10.1" WSVGA (1024 x 576) LED Display with touchscreen
Memory¹	Dual Channel DDR2 Memory 512MB or 1GB Integrated Memory Option One Memory Slot offering up to additional 1GB (total memory up to 2GB) ² Memory Bandwidth 533MHz
Battery	3-cell or 6-cell "Smart" Lithium-Ion Primary battery featuring Express Charge™
Power Supply	65W AC Adapter featuring cord wrapping
Primary Storage³	Solid State Drives up to 16GB 5400rpm Hard Drives up to 250GB
Connectivity Options	10/100/1000 Gigabit Ethernet Wireless LAN: Dell Wireless 1397 (802.11g), Dell Wireless 1510 (802.11a/g/n 2x2), Intel WiFi Link 5100 [802.11a/g/n (1x2)]; Intel WiFi Link 5300 [802.11a/g/n (3x3)] Bluetooth: Dell Wireless 365 Bluetooth 2.1
Security	Dual Kensington Lock Slots
External Media	Optional 8X DVD±RW/±R External USB 2.0 Rewritable Drive
Collaboration	2 speakers, digital microphone, optional VGA camera
Expansion	3-in-1 card reader
Ports	USB 2.0 (x3), VGA, headphone/speaker out, mic
Input	Touchpad
Dimensions/ Weight (Starting)	PRELIMINARY Starting weight with 3-cell battery 2.91lb/1.32kg4 10.43" x 7.36" x 0.89" – 1.57"; 265mm x 187mm x 22.5mm-39.9mm
Color Choices	Available
Key Accessories	Carrying Handle, Shoulder Strap, keyboard with antimicrobial protection (US only), Dell Mobile Computing Station (cart – US only)

DETAILED TECHNICAL OVERVIEW AND CONFIGURATION SPECIFICATIONS

System Configurations

NOTE: Offering may vary by region.

Chipset	
Intel 945GSE Express Chipset (Montevina)	X

Processor
(speed, system bus,
wattage, cache)

Intel® Atom™ N270 (1.60 GHz, 512KB L2 Cache, 533MHz FSB)

Memory

Integrated Memory Board Options	512MB 1GB
DIMM slots	1
DIMM speed	533MHz
Minimum Memory* Configuration	512MB
Maximum Memory* Configuration	2GB*
DIMM Configurations	2GB (1GB integrated + 1GB 1DIMM) 1.5GB (512MB integrated + 1GB 1DIMM) 1GB (1GB integrated) 512MB (512MB integrated)

Primary Storage

Size, type, speed

80GB* SATA 5400 RPM
160GB * SATA 5400 RPM
250GB* SATA 5400 RPM
8GB* Solid State Mobility
16GB* Solid State Mobility

Ports, Connectors, Expansion Slots

USB 2.0	3 Total 4-pin USB 2.0 compliant connectors
Video	VGA
Network Adapter	RJ-45 network adapter

Ports, Connectors, Expansion Slots	
Audio	Two channel high definition audio Realtek ALC272 Controller Stereo conversion: 24-bit (analog-to-digital and digital-to-analog) Interfaces: Internal - high-definition audio codec External - microphone-in connector and stereo headphones/speakers connector Speakers: two 1-watt, 4-ohm speakers Internal speaker amplifier: 1 watt per channel, 4 ohms Internal microphone: single digital microphone Volume control buttons
Webcam	Optional 1.3 megapixel
Dell 3-in-1 Media Card Reader	Card supported: SD, SDHC and MMC

External Optical Drive	
DVD+/-RW	8x SATA Roxio & Cyberlink PowerDVD software External Via USB

Wireless Communications -Wi-Fi (WLAN)

Dell Wireless 1397 (802.11g)	
Host interface	PCI Express™ Half Mini-Card
Network standard	IEEE 802.11b and 802.11g
Wi-Fi Alliance Certifications	802.11b, 802.11g, WPA, WPA2, WMM
Operating Frequency Bands	2.4 GHz
Dual Diversity Antenna Switching	Dual diversity antenna switching for systems designed with main and auxiliary antennas
Data Rate	802.11g - Up to 54 Mbps / 802.11b - Up to 11 Mbps
Typical Range Indoor Typical Range Outdoor	802.11g: 100 ft (30 m) @ 54 Mbps; 200 ft (60 m) @ 18 Mbps 802.11b: 260 ft (80 m) @ 11 Mbps; 410 ft (125 m) @ 1 Mbps 802.11g: 200 ft (60 m) @ 54 Mbps; 490 ft (150 m) @ 18 Mbps 802.11b: 650 ft (200 m) @ 11 Mbps; 1300 ft (400 m) @ 1 Mbps
Receive Sensitivity	802.11g: -73 dBm @ 54 Mbps; -86 dBm @ 18 Mbps 802.11b: -88 dBm @ 11 Mbps; -95 dBm @ 1 Mbps
Power Consumption	TX Average - 759 mW, RX Average - 505 mW
Security Authentication EAP Methods Single Sign On Encryption Cisco Compatible Extensions	Open, Shared, WPA, WPA-PSK, WPA2, WPA2-PSK, CCKM MD5, LEAP, EAP-FAST, EAP-TLS, EAP-TTLS (PAP, CHAP, MD5, MS-CHAP, MS-CHAPv2), PEAP (TLS, MS-CHAPv2, GTC) Open, Shared, MD5, LEAP, EAP-FAST, EAP-TLS, EAP-TTLS (PAP, CHAP, MD5, MS-CHAP, MS-CHAPv2), PEAP (TLS, MS-CHAPv2, GTC), Smart Cards WEP (64 bit/128 bit), CKIP, TKIP, AES-CCMP Version 4
Client Utility	Wireless profile and security management, site monitor, link status, adapter configuration and diagnostics

Dell Wireless 1397 (802.11g)	
Software Support	Microsoft® WHQL certified for Windows® XP and Windows® Vista
Radio On/Off	Hardware and software on/off disables transmit and receive to comply with aviation in-flight restrictions
LED output	Wireless enable and wireless activity. Compatible with Dell Wi-Fi Catcher™ to indicate via LED presence of
Humidity	Up to 95%
Temperature	Operational 0 to 75C; Storage -40 to 80C
Roaming	Seamless roaming between 802.11b and 802.11b/g access points

Dell Wireless 1510 (802.11 a/g/Draft n 2x2)	
Host interface	PCI Express™ Half Mini-Card
Network standard	IEEE 802.11a, 802.11b, 802.11g, and 802.11 Draft n
Wi-Fi Alliance Certifications	802.11a, 802.11b, 802.11g, WPA, WPA2, WMM
Operating Frequency Bands	2.4 GHz (802.11b/g/n) and 5 GHz (802.11a/Draft n)
Dual Diversity Antenna Switching	Dual diversity antenna switching for systems designed with main and auxiliary antennas 2x2 MIMO operation when in 802.11n mode with 2x2 or greater Access Point
Data Rate	802.11 Draft n - Up to 300 Mbps*; 802.11a/g - Up to 54 Mbps 802.11b - Up to 11 Mbps
Typical Range Indoor Typical Range Outdoor	802.11n: 25 ft*(7 m) @ 300 Mbps*; 100 ft *(30 m) @ 108 Mbps* 802.11a: 75 ft* (23 m) @ 54 Mbps*; 160 ft* (50 m) @ 18 Mbps* 802.11g: 100 ft* (30 m) @ 54 Mbps*; 200 ft* (60 m) @ 18 Mbps* 802.11b: 260 ft*(80 m) @ 11 Mbps*; 410 ft* (125 m) @ 1 Mbps* 802.11n: 60 ft* (18 m) @ 300 Mbps*; 225 ft* (68 m) @ 108 Mbps* 802.11a: 160 ft* (50 m) @ 54 Mbps*; 460 ft* (140 m) @ 18 Mbps* 802.11g: 200 ft* (60 m) @ 54 Mbps*; 490 ft* (150 m) @ 18 Mbps* 802.11b: 650 ft* (200 m) @ 11 Mbps*; 1300 ft* (400 m) @ 1 Mbps*
Receive Sensitivity	802.11 Draft n: -66 dBm @ 300 Mbps*; -75dBm @ 108 Mbps* 802.11g: -73 dBm @ 54 Mbps*; -86 dBm @ 18 Mbps* 802.11b: -88 dBm @ 11 Mbps*; -95 dBm @ 1 Mbps* 802.11a: -72 dBm @ 54 Mbps*; -86 dBm @ 18 Mbps*
Power Consumption	TX Peak - 2056 mW, RX Peak - 2059 mW
Security Authentication EAP Methods Single Sign On	Open, Shared, WPA, WPA-PSK, WPA2, WPA2-PSK, CCKM MD5, LEAP, EAP-FAST, EAP-TLS, EAP-TTLS (PAP, CHAP, MD5, MS-CHAP, MS-CHAPv2), PEAP (TLS, MS-CHAPv2, GTC) Open, Shared, MD5, LEAP, EAP-FAST, EAP-TLS, EAP-TTLS (PAP, CHAP, MD5, MS-CHAP, MS-CHAPv2), PEAP (TLS, MS-CHAPv2, GTC), Smart Cards WEP (64 bit/128 bit), CKIP, TKIP, AES-CCMP Version 4
Client Utility	Wireless profile and security management, site monitor, link status, adapter configuration and diagnostics
Software Support	Microsoft® WHQL certified for Windows® XP and Windows® Vista
Radio On/Off	Hardware and software on/off disables transmit and receive to comply with aviation in-flight restrictions
LED output	Wireless enable and wireless activity. Compatible with Dell Wi-Fi Catcher™ to indicate via LED presence of

Dell Wireless 1510 (802.11 a/g/Draft n 2x2)	
Humidity	Up to 95%
Temperature	Operational 0 to 75C; Storage -40 to 80C
Roaming	Seamless roaming between 802.11a, 802.11b, 802.11b/g, and 802.11n access points

Intel® WiFi Link 5100 [802.11a/g/Draft n (1x2)]	
Host interface	Mini Card form factor, based on PCIe electrical interface
Network standard	IEEE 802.11a/b/g/Draft-N
Wi-Fi Alliance Certifications	Wi-Fi Certified for 802.11 a, 802.11 b, 802.11 g, WMM, WPA, and WPA2 (Wi-Fi Alliance Draft-N1 and 802.11n certifications expected when available)
Operating Frequency Bands	2.4 GHz and 5.0 GHz
Dual Diversity Antenna Switching	Support for up to two antennas enable better wireless reception at the same distance when compared to 802.11a/b/g solutions
Data Rate	802.11 Draft n - Up to 300 Mbps* 802.11a/g - Up to 54 Mbps* 802.11b - Up to 11 Mbps*
Power Consumption	Optimized power modes (sleep states) help reduce power consumption during periods of inactivity
Authentication Protocols Encryption Product Safety	WPA and WPA2, 802.1X, LEAP, EAP-TLS, PEAP-TLS, and PEAP-MSCHAPv CKIP, TKIP, 64-bit and 128-bit WEP (for 802.11a/b/g), AES-CCMP (for 802.11a/b/g/Draft-N) UL, C-UL, CB (IEC 60950)
Client Utility	Intel® PROSet/Wireless Software v12.0
Software Support	Microsoft® WHQL certified for Windows® XP and Windows® Vista; Linux
Radio On/Off	Supported in both hardware and software
LED output	Single WLAN-LED (as per Mini Card specification)
Humidity Non-Operating	50% to 90% RH non-condensing (at temperatures of 25° C to 35° C)
Temperature Operating	0 to +80° C
Roaming	Supports seamless roaming between respective access points (802.11b, 802.11g, 802.11a/b/g, and 802.11a/b/g/Draft-N)

Intel® WiFi Link 5300 [802.11a/g/Draft n (3x3)]	
Host interface	Mini Card form factor, based on PCIe electrical interface
Network standard	IEEE 802.11a/b/g/Draft-N
Wi-Fi Alliance Certifications	Wi-Fi Certified for 802.11 a, 802.11 b, 802.11 g, WMM, WPA, and WPA2 (Wi-Fi Alliance Draft-N1 and 802.11n certifications expected when available)
Operating Frequency Bands	2.4 GHz and 5.0 GHz
Dual Diversity Antenna Switching	Support for up to three antennas enable better wireless reception at the same distance when compared to 802.11a/b/g solutions

Intel® WiFi Link 5300 [802.11a/g/Draft n (3x3)]	
Data Rate	Up to 450 Mbps*
Power Consumption	Optimized power modes (sleep states) reduce power consumption during periods of inactivity
Authentication Protocols Encryption Product Safety	WPA and WPA2, 802.1X, LEAP, EAP-TLS, PEAP-TLS, and PEAP-MSCHAPv CKIP, TKIP, 64-bit and 128-bit WEP (for 802.11a/b/g), AES-CCMP (for 802.11a/b/g/Draft-N) UL, C-UL, CB (IEC 60950)
Client Utility	Intel® PROSet/Wireless Software v12.0
Software Support	Microsoft® WHQL certified for Windows® XP and Windows® Vista; Linux
Radio On/Off	Supported in both hardware and software
LED output	Single WLAN-LED (as per Mini Card specification)
Humidity Non-Operating	50% to 90% RH non-condensing (at temperatures of 25° C to 35° C)
Temperature Operating	0 to +80° C
Roaming	Supports seamless roaming between respective access points (802.11b, 802.11g, 802.11a/b/g, and 802.11a/b/g/Draft-N)

Dell Wireless 365 Bluetooth 2.1	
Manufacturer	Broadcom
Wireless PAN Standard	BT 2.1
Form Factor	Module
Data Rates	Up to 3Mbps*
Frequency Band	2.4GHz
Range	Up to 7m (23ft)*
Bluetooth Profiles Supported	Includes Streaming Stereo Quality Audio (A2DP), File Transfer (FTP/OBEX), Dial-up Networking (DUN), Mice/Keyboards (HID), Printing (BPP), Digital Image Management (transfer, print, remote camera operation) (BIP), Fax (FAX), Headset (HSP) and more.
Data Encryption	128-bit encryption
Output Power	Power class 2, Max 4 dBm (2.4 mW)
Receive Sensitivity	-88 dBm
Temperature	Operational 0-75C; Storage -40-80C
Humidity	Up to 95%
Software	Microsoft Windows XP and Vista support

Wired Communications

Network Adapter (NIC)	
Intel to Broadcom BCM5764M	Integrated on system board
External connector type	RJ-45
Data Rates	10/100/1000 Mbps
Controller bus architecture	PCI-e V1.1x1
Power consumption (full operation per data rate connection speed)	1000 Mbps: 680 mW 100 Mbps: 238 mW 10 Mbps: 221 mW
Power consumption (standby operation)	No Link (low power mode): 55mW No Link (w/ WOL): TBD 10 Mbps Idle (w/ WOL): 141 mW 100 Mbps Idle (w/ WOL): 238 mW
IEEE standards compliance	802.3, 802.3ab, 802.3u
Boot ROM Support	PXE, RPL
Network Transfer Rate	Full duplex at 10, 100, or 1000 Mbps and half duplex at 10 or 100 Mbps.
Operating Temperature	-20° C to 70° C (-4° F to 158° F)
Operating Humidity	20% to 80% (non-condensing)
Operating System Driver support	DOS, NT, Win2K, Netware, XP, Vista 32/64bit
Manageability	WOL, PXE
Management Capabilities Alerting	ASF 2.0

Batteries

	Primary3-cell	Primary6-cell
Battery Capacity	28Whr	56Whr
Cell Capacity	2.6Ahr	2.6Ahr
Voltage	11.1 VDC	11.1 VDC
LED Charge & Health Gauge	No	No
Weight (lbs)*	0.46	0.77
Weight (kg)*	0.21	0.35
Dimensions (inches)*	8.03 x 1.59 x 0.92	8.03 x 1.89 x 1.67
Dimensions (mm)*	204 x 40.5 x 23.2	204 x 48.1 x 42.5
ExpressCharge Capable	Yes	Yes
Charge Time(with ExpressCharge & 65W adapter, when the computer is off)	- approximately 1 hour to 80% capacity- approximately 2 hours to 100% capacity	- approximately 1 hour to 80% capacity- approximately 2 hours to 100% capacity
Temperature range:		
Operating	0o to 35oC 32o to 95oF	0o to 35oC 32o to 95oF
Storage	-40o to 60oC -40o to 149oF	-40o to 60oC -40o to 149oF

AC Adapter

Adapter Specifications		65w
Input voltage	90 to 264 VAC	
Input current (max)	1.7A	
Input frequency	47 to 63 Hz	
Output current	4.34 A Max at 4 second pulse 3.34 A (continuous)	
Rated output voltage	19.5 VDC	
Weight (lbs)³	0.79	
Weight (kg)³	0.36	
Dimensions (inches)	5.4 x 2.3 x 1.1	
Dimensions (mm)	137.2 x 57.8 x 27.2mm	
Temperature range: Operating	0o to 35oC 32o to 95oF	
Storage	-40o to 65oC -40o to 149oF	

Environmental and operating conditions	
Temperature Range	Operating 0° to 35°C (32° to 95°F) Storage -40° to 65°C (-40° to 149°F)
Relative humidity (maximum)	Operating 10% to 90% (noncondensing) Storage 5% to 95% (noncondensing)
Altitude (maximum)	Operating -15.2 to 3048 m (-50 to 10,000 ft) Storage -15.2 to 3048 m (-50 to 10,000 ft)