

HSDPA FACT SHEET AND DEPLOYMENT LIST

HSDPA: High-Speed Downlink Packet Access

- HSDPA enables operators to provide newer, faster services such as on-demand streaming video/film, high-resolution interactive gaming, multimedia music tracks, “push-to-watch” services and access to large email attachments—all at speeds nearly three times faster than today’s commercial 3G UMTS networks and four times faster than EDGE networks. [note: this applies to the *downlink* only at this time]
 - The data capacity of HSDPA-enhanced UMTS networks will be increased 2.5 to 3.5 times that of UMTS, thus offering operators a much-reduced network cost for data services.
 - The deployment of HSDPA-enhanced UMTS networks is similar in upgrade to the EDGE-enhanced GSM/GPRS network.
 - Operators deploying HSDPA will be able to support both voice and data using the same spectrum allocation.

- HSDPA offers a combination of spectral efficiency, high speed and low latency, thus enabling true mass-market mobile broadband.
 - *Spectral efficiency*: Operators using HSDPA will be able to support users for both voice and data using the same spectrum allocation.
 - *High speed*: HSDPA will offer significant benefits to both end user and operator, such as download speeds that can eventually average 550–1100 Kbps. (Cingular reports 400-700 Kbps on their network today.)
 - *Low latency*: UMTS and UMTS/HSDPA provide low latency of 200–100 milliseconds, respectively.

HSDPA Deployments

HSDPA is becoming a market reality with 44 networks in service, and 70 networks planned, in deployment or in trial. It is expected that most all UMTS operators will upgrade to HSDPA.

Informa Telecoms & Media World Cellular Information Service August 18, 2006			IN SERVICE	44 in 32 countries
			COMMITMENTS	114
Networks in service (in red) (* = data cards only)				
	Country	Operator	Status	Start date
1	Australia	3 Australia/Hutchison 3G	In Deployment	1H 2007
2	Australia	Optus	Planned	2007
3	Australia	Telstra	In Deployment	Sep 2006
4	Australia	Vodafone	Planned	Dec 2006
5	Austria	3 Austria/ Hutchison 3G	Planned	Dec 2006
6	Austria	Connect Austria (ONE)	In Deployment	Dec 2006
7	Austria	Mobilkom Austria *	In Service	Jan 2006
8	Austria	T-Mobile *	In Service	Mar 2006
9	Austria	Tele.ring	In Deployment	Dec 2006
10	Bahrain	MTC Vodafone	In Service	May 2006
11	Belgium	Mobistar	In Deployment	Sept 2006

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	Country	Operator	Status	Start Date
12	Belgium	Proximus	In Service	Jun 2006
13	Bulgaria	Mobiltel	In Service	Mar 2006
14	Canada	Rogers	In Deployment	Q4 2006
15	China	China Mobile	In Trial	2007
16	Croatia	VIPNET	In Service	Apr 2006
17	Czech Republic	Eurotel Praha	In Service	Apr 2006
18	Czech Republic	T-Mobile	Planned	2007
19	Czech Republic	Vodafone Czech (Oskar)	Planned	2007
20	Denmark	3 Denmark	In Deployment	2006
21	Estonia	Elisa	In Service	July 2006
22	Estonia	EMT	In Service	April 2006
23	Finland	Elisa	In Service	April 2006
24	Finland	Finnet/ Finnish 2G	In Deployment	Mar 2007
25	France	Bouygues	Planned	1H 2007
26	France	Orange	In Trial	Mid-2006
27	France	SFR	In Service	May 2006
28	Germany	E-Plus	Planned	Dec 2006
29	Germany	O2	In Deployment	Dec 2006
30	Germany	T-Mobile *	In Service	Mar 2006
31	Germany	Vodafone *	In Service	Mar 2006
32	Greece	Cosmote (data card)	In Service	Jun 2006
33	Greece	TIM Hellas	Planned	2007
34	Guernsey	Cable & Wireless	In Deployment	2007
35	Hong Kong	CSL	In Deployment	2H 2006
36	Hong Kong	3HK	In Deployment	Q3 2006
37	Hong Kong	Smartone/Vodafone	In Service	June 2006
38	Hong Kong	Sunday	In Deployment	Jun 2006
39	Hungary	Pannon	In Deployment	Mar 2007
40	Hungary	T-Mobile (Budapest)	In Service	May 2006
41	Hungary	Vodafone	In Trial	2007
42	Indonesia	H3G	Planned	Jun 07
43	Ireland	O2	In Deployment	Sep 2006
44	Ireland	Vodafone	In Deployment	Dec 2006
45	Isle of Man	Manx Telecom	In Service	Nov 2005

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	Country	Operator	Status	Start Date
46	Israel	Cellcom Israel	Planned	1H 2006
47	Israel	Partner Comm. (Orange)	In Service	Apr 2006
48	Italy	H3G (data cards only)	In Service	Jun 2006
49	Italy	TIM	In Service	May 2006
50	Italy	Vodafone Omnitel	In Service	Jun 2006
51	Japan	BB Mobile	In Deployment	2007
52	Japan	eMobile	In Deployment	July 2007
53	Japan	NTT DoCoMo	In Deployment	Q3 2006
54	Japan	Vodafone	Planned	2H 2006
55	Jersey	Cable & Wireless	In Deployment	2007
56	Kuwait	Wataniya Telecom	In Service	Feb 2006
57	Latvia	Bité	In Deployment	2H 2006
58	Lithuania	Bité	In Service	Jun 2006
59	Lithuania	Omnitel	In Service	Jun 2006
60	Malaysia	Celcom	In Service	June 2006
61	Malaysia	Maxis Communications	In Deployment	2006
62	Malaysia	Time dotCom Bhd	In Trial	2007
63	Mexico	Telcel	In Deployment	2007
64	Namibia	Powercom	In Deployment	Dec 2006
65	Netherlands	KPN	In Deployment	Dec 2006
66	Netherlands	Telfort	In Deployment	Dec 2006
67	Netherlands	T-Mobile	In Service	April 2006
68	Netherlands	Vodafone	Data Cards	Jul 2006
69	New Zealand	Econet Wireless	Planned	Jun 2007
70	New Zealand	Hutchison (3)	Planned	Jun 2007
71	New Zealand	Telstra	Planned	2007
72	New Zealand	Vodafone	In Deployment	2006
73	Norway	Hi3G Access	Planned	Jun 2008
74	Philippines	GLOBE Telecom	In Service	Mar 2006
75	Philippines	SMART Communications	In Service	April 2006
75	Poland	Polkomtel	Planned	2006
76	Poland	Polska Telefonía Cyfrowa	In Deployment	2006
77	Portugal	Optimus *	In Service	Mar 2006
78	Portugal	TMN	In Service	Apr 2006

	Country	Operator	Status	Start Date
78	Portugal	Vodafone Telecel	In Service	Mar 2006
79	Qatar	Q-Tel	Planned	Mar 2007
80	Romania	Vodafone (Connex)	In Service	May 2006
81	Romania	Orange Romania	In Deployment	2007
82	Saudi Arabia	Mobily	In Service	Jun 2006
83	Saudi Arabia	STC / Al Jawwal	In Service	May 2006
84	Singapore	MobileOne	Demo June 06	Dec 2006
85	Singapore	SingTel Mobile	Planned	Mar 2007
86	Singapore	StarHub	Planned	Mar 2007
87	Slovak Republic	Orange	In Trial	2006
88	Slovenia	Mobitel	In Deployment	Jun 2007
89	South Africa	MTN	In Service	Mar 2006
90	South Africa	Vodacom	In Service	Apr 2006
91	South Korea	KTF	In Service	Jun 2006
92	South Korea	SK Telecom 3G+ (1 st commercial network with HSDPA handheld devices)	In Service	May 2006
93	Spain	Amena/ Orange	In Service	Jun 2006
94	Spain	Vodafone España	In deployment	Dec 2006
95	Spain	Telefonica Moviles	Planned	Dec 2006
96	Sri Lanka	Dialog Telekom	In Service	Aug 2006
97	Sweden	H3G	In Deployment	Dec 2006
98	Sweden	Svenska UMTS-Nät	Planned	Dec 2006
99	Switzerland	Orange	In Deployment	Dec 2006
100	Switzerland	Sunrise	In Trial	Q2 2006
101	Switzerland	Swisscom Mobile	In Service	Mar 2006
102	Taiwan	Chunghwa Telecom	In Deployment	4Q 2006
103	Taiwan	FarEasTone	In Trial	2H 2006
104	Taiwan	Taiwan Mobile	Planned	Dec 2006
105	Taiwan	VIBO	Planned	Mar 2007
106	Tanzania	Vodacom	In Deployment	Dec 2006
107	UAE	Etilisat	In Service	April 2006
108	UK	3 UK / Hutchison	In Deployment	Sep 2006
109	UK	O2	In Deployment	Sep 2006
110	UK	Orange	Planned	Dec 2006
111	UK	T-Mobile	In Deployment	Aug 2006

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112	UK	Vodafone	In Service	June 2006
113	USA	Cingular Wireless	In Service	Oct 2005
114	USA	EDGE Wireless	In Trial	2007

Source: Informa Telecoms & Media, World Cellular Information Service and public announcements

HSDPA Devices:

PC DATA CARDS:
NTT DoCoMo: FOMA M2501 High Speed Data Card In Development
Huawei: HSDPA E620 PC card GSM/EDGE 900/1800/1900 UMTS/HSDPA
Motorola: D1100 PC card GSM/GPRS/UMTS/HSDPA
Novatel Wireless: PC card devices backward compatible with 850/900/1800/1900 MHz GSM/GPRS/EDGE: - Merlin U730: 850/1900 MHz UMTS/HSDPA (North America) – available now - Merlin U740: 2100 MHz UMTS/HSDPA (Asia, Africa, Europe, Middle East) - Merlin U870: 850/900/2100 MHz (North America & Europe) ; UX870 3.6/7.2Mbps Express Card (Q3 2006) PCI Express Mini Card modems for laptops and wireless broadband devices, backward compatible with 850/900/1800/1900 MHz GSM/GPRS/EDGE – in development phase, availability pending: - Expedite EU730: 850/1900 MHz UMTS/HSDPA (North America) - Expedite EU740: 2100 MHz UMTS/HSDPA (Asia, Africa, Europe, Middle East) - Dell Wireless 5510 ExpressCard for Cingular networks (available August 06) - Panasonic® Toughbook® Convertible Tablet PC with embedded Novatel Wireless Expedite EU730 Module (Available)
Option: PC cards - Globetrotter GT MAX: 850/1900/2100 Multi-mode HSDPA/UMTS/EDGE/GPRS/GSM + GT MAX 7.2-ready card (2H 06) - GlobeTrotter HSDPA: 850/900/1800/1900/2100 MHz EDGE-UMTS-HSDPA for North America and EMEA; shipping now - GlobeTrotter 3G EDGE: 850/900/1800/1900/2100 MHz EDGE-UMTS-HSDPA-ready, available now - GlobeTrotter FUSION+: HSDPA-ready-850/900/1800/1900/2100 MHz EDGE-UMTS-Wi-Fi 802.11G-; available now - GlobeTrotter FUSION+ HSDPA: Multimode WLAN/HSDPA/UMTS/EDGE/GPRS/GSM 850/900/1800/1900 - GTM351E PCI Express Mini Card module for laptops: 850/900/1800/1900 EDGE-UMTS-HSDPA-WWAN; to ship in H1 2006
Siemens: - DC10: GSM/EDGE 850/900/1800/1900/UMTS/HSDPA 2100 - DC16 GSM/EDGE 850/900/1800/1900/UMTS/HSDPA 850/1900
Sierra Wireless: PC cards available now - AirCard 850: 850/900/1800/1900/2100 EDGE-UMTS-HSDPA (Europe) - AirCard 860: 850/900/1800/1900 EDGE-UMTS-HSDPA (North America) - AirCard 875: 850/900/1800/1900 GPRS/EDGE and 850/1900/2100 UMTS/HSDPA (Global) - debitel SURF@go Card 850 800/900/1800/1900/2100 GPRS/EDGE/UMTS/HSDPA (Germany) - MC8755 PCI Express Mini Card 2100 MHz for use on HSDPA capable networks (Europe and Asia) - MC8765 PCI Express Mini Card 850/1900 MHz (North America) - MC8775 PCI Express Mini Card HSDPA/UMTS 850/1900/2100 and EDGE/GPRS quad-band - MC8775V PCI Express Mini Card – same as above but supports simultaneous voice & data
ZTE Corporation: (China) - ZTE MF3300 data card for Europe. Began production July 2006 -
MODEMS, ROUTERS and other access devices
- Huawei E220 USB modem: GPRS/EDGE/UMTS/HSDPA external mini USB interface - GlobeSurfer ICON : quad band GSM/EDGE/UMTS/HSDPA 2100 – USB connector - GlobeSurfer 3G HSDPA Wireless Broadband Router: EDGE/UMTS/HSDPA 802.11 & Ethernet - Novamedia: launch2net® for Mac OS X - mobile data connecting software - Sarian Systems: GPRS/EDGE/UMTS/HSDPA router - ZadaCOM 3G+ (www.zadako.com): GSM/GPRS/EDGE/UMTS/HSDPA (EMEA+North America) available now

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HANDSETS

BenQ-Siemens Mobile:

- **EF91** –GSM 900/1800/1900 UMTS HSDPA 2100 slated for commercial availability around June 2006

Fujitsu Ltd/Motorola/NEC Corp:

- Developed for NTT CoDoMo Inc. - prototypes shown at 3GSM World Congress Feb 06
- Motorola **RAZR MAXX V6**: WCDMA 2100, GSM 900/1800/1900, EDGE. Available 2H 2006
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LG Electronics:

- GSM/ UMTS/ HSDPA device slated for commercial availability in 2006
- **LG KU730** GSM/EDGE 900/1800/1900/UMTS HSDPA 2100
- **LG SH100** and **LGKH1000** (SK Telecom and KFT only) handset for video calls
- **LG CU500** GSM/EDGE 850/900/1800/1900 UMTS – HSDPA 850 Cingular Wireless

NTT DoCoMo: N902iX -Japan's first HSDPA-compatible handset

Qtek:

- **Qtek S300** GSM EDGE 850 900/1800/1900 UMTS HSDPA 850 1900 2100
- **Qtek 9600** GSM/EDGE/850/900/1800/1900 UMTS HSDPA 210 / WLAN Available July 2006

Samsung Electronics:

- **SGH-zx20**: Quad-band GSM 850/1900/2100 for global and Cingular networks –Available now
- **SGH-Z560**: GSM/EDGE 900/1800/1900 UMTS HSDPA 2100 Available now
- **ZX20** 850/900/1800/1900 MHz handset, planned availability in Q2 2006
- **SCH-W200** and **SPH-W2100** terrestrial DMB (digital multimedia broadcasting) HSDPA handset through KTF

MDA Vario II launched by T-Mobile in the UK and Germany in August 2006

INTEGRATED LAPTOPS

Acer: TravelMate 4260, Aspire 5650 upgradeable to HSDPA

Dell: [Dell Wireless 5505](#) Mobile Broadband 3G HSDPA card available in the U.K. June 2006

Fujitsu Siemens Computers: Lifebook Q2010 notebook equipped with 3G, HSDPA and WLAN (for T-Mobile networks)

HP: HP Compaq Nc6140 (UMTS/HSDPA for Cingular networks)

Lenovo: ThinkPad Z60, T60, X60 laptops to incorporate HSDPA

Panasonic: -Panasonic® Toughbook® Convertible Tablet PC with embedded Novatel Wireless Expedite EU730 Module (Available on Cingular BroadbandConnect and Compatible Global Networks – June 2006)

Aug 2006: Panasonic and Cingular Wireless introduced the Panasonic Toughbook CF-29, the first Toughbook targeted to public safety with Cingular's 3G BroadbandConnect service built-in.

Vendors: A growing number of manufacturers and software providers support HSDPA.

Acer	Lucent Technologies
Aeroflex	Motorola
Agere Systems	NEC
Agilent Technologies	Nokia
Alcatel	Nortel Networks
Analog Devices	Novatel Wireless
Andrew Corporation	Option
Anritsu Solution	Panasonic
Argogroup	picoChip
BenQ / Siemens	Qualcomm
Broadcom	Radioplan
Cellular3G	Rohde & Schwarz
Dell	Samsung
Dovado	Sanyo
Elan Digital Systems	Sarian
Ericsson	Sharp
Fairchild Semiconductor	Siemens
Freescale Semiconductor	Sierra Wireless
Fujitsu	Sirific Wireless
HP	Spirent Technologies
HTC	Sony Ericsson
Huawei	Texas Instruments
Icera	Topex
Infineon Technologies	TriQuint SemiConductor
InterDigital Communications	TTPCom
IPWireless	UbiNetics
Lenovo	ZADAKO
LG Electronics	ZTE Corporation

N.B.: This list is representative of some of the many companies that are supporting HSDPA, and may not be a fully comprehensive listing of HSDPA vendors. Should you wish to add your company to the list, please send an email to info@3gamericas.org