

GPRS Class Type

The class of the device determines the speed at which GPRS can be used.

For example, the majority of GPRS terminals will be able to download data at speeds of up to 24Kbps (kilobytes per second). At the higher end, speeds are theoretically possible up to 171.2 kbit/sec when 8 slots are assigned at the same time to a single user. In reality 40-50Kbps.

PC cards capable of GPRS will send data up to speeds of 48Kbps.

Compare this to current data speeds available:

Type	Uplink (Sending)	Downlink (Receiving)
GPRS	14 kbps	28-64 kbps
GSM CSD	9.6-14 kbps	9.6-14 kbps
HSCSD	28 kbps	28 kbps
Dial-UP	56 kbps	56 kbps
ISDN Standard	64 kbps	64 kbps
ADSL	256 kbps	512 kbps
Broadband	2 Mbps	2 Mbps

GPRS Multislot Classes

Multislot classes are product dependant, and determine the maximum achievable data rates in both the uplink and downlink directions.

Written as (for example) 3+1 or 2+2, the first number indicates the amount of downlink timeslots (what the mobile phone is able to receive from the network).

The second number indicates the amount of uplink timeslots (how many timeslots the mobile phone is able to transmit).

The active slots determine the total number of slots the GPRS device can use simultaneously for both uplink and downlink communications.

Multislot Class	Downlink Slots	Uplink Slots	Active Slots
1	1	1	2
2	2	1	3
3	2	2	3
4	3	1	4
5	2	2	4
6	3	2	4
7	3	3	4
8	4	1	5
9	3	2	5
10	4	2	5
11	4	3	5

12	4	4	5
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Futher Examples:

Class 2

One Up, Two Down - (2+1)

8-12Kbps Send - 16-24Kbps Receive

Mororola Accompli A008
Trium Mondo, Sirius

Class 4

One Up, Three Down - (3+1)

8-12Kbps Send - 24-36Kbps Receive

Motorola TimeportT260

Class 6 - Configurable between

Two Up, Three Down

16-24Kbps Send - 24-36Kbps Receive

Or Three Up, Two Down

24-36Kbps Send - 16-24Kbps Receive

Nokia 6310, 6510, 8310

Class 8

One Up, Four Down

8-12Kbps Send - 32-40Kbps Receive

Ericsson T39, R520
Motorola v60i, v66i
Samsung Q200, S100
Siemens S45, ME45, M50
Trium Eclipse

Class 10- Configurable between

One Up, Four Down

8-12Kbps Send - 32-48Kbps Receive

Or Two Up, Three Down

16-24Kbps Send - 24-36Kbps Receive

Philips Fisiso 820

Class 12- Configurable between

One Up, Four Down

8-12Kbps Send - 32-48Kbps Receive

Or Two Up, Three Down

16-24Kbps Send - 24-36Kbps Receive

Or Three Up, Two Down

24-36Kbps Send - 16-24Kbps Receive

Or Four Up, One Down

32-48Kbps Send - 8-12Kbps Receive

Sierra Wireless Aircard 750
GSM/GPRS PC Card

Class A, Class B & Class C?

The class indicates the mobile phone capabilities.

Class A

Class A mobile phones can be connected to both GPRS and GSM services simultaneously.

Class B

Class B mobile phones can be attached to both GPRS and GSM services, using one service at a time. Class B enables making or receiving a voice call, or sending/receiving an SMS during a GPRS connection. During voice calls or SMS, GPRS services are suspended and then resumed automatically after the call or SMS session has ended.

Class C

Class C mobile phones are attached to either GPRS or GSM voice service. You need to switch manually between services.

