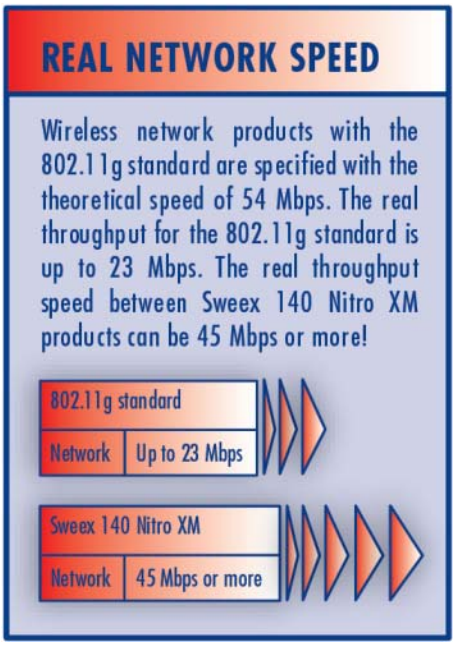
NITRO XM EXPLANATION

Nitro XM is a new standard for exchanging information via wireless networks. Nitro XM actually represents a number of specific expansions in relation to the 802.11g standard.



Wireless networks based on the 802.11g standard have a theoretical speed of 54 Mbps. In practice this means an effective (data transfer) speed of 18 to 23 Mbps. Nitro XM applies two options to increase the effective speed:

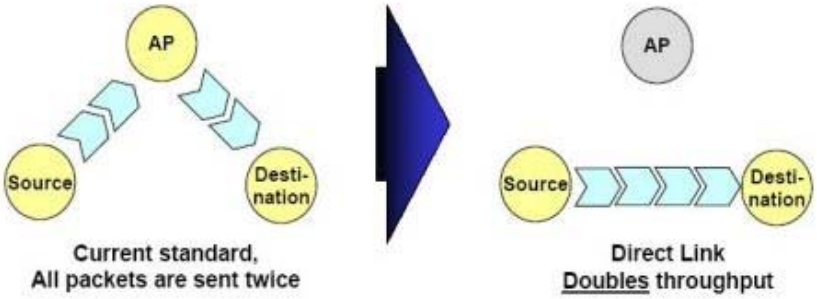
- Data compression
- Direct Link

Data compression

Just as with ZIP and ARC files, wireless networks allow for the compression of small data packages prior to sending these. Upon receipt, the recipient must decompress these data packages. This compression technique increases the actual data transfer speed.

Direct Link

Communication in 802.11g networks is always conducted via an Access Point. So-called Ad-Hoc networks, in which two computers communicate with each other directly without an Access Point, are an exception to this.



The illustration above, on the left, shows the standard 802.11g protocol in which communication is always conducted via an Access Point. This means that the data is in fact sent twice, first from the client to the Access Point and subsequently from the Access Point to the client. Direct Link sends the data directly to the target client, bypassing the Access Point. In order to use Direct Link, both clients must have suitable Nitro XM hardware and the option to activate Direct Link. Thanks to the combination of data compression and Direct Link, Nitro XM enables theoretical speeds of up to 140 Mbps. In practice this means an effective transfer speed of 45 Mbps or higher.

Just as with standard 802.11g networks, potential maximum speeds depend on signal strength. If the signal weakens, the speed will be automatically reduced. This is to prevent too many errors occurring as a result of which data packages need to be resent. The range of Nitro XM network products is equal to standard 802.11g products. The advantages gained are subject to both the sending and receiving party using Nitro XM hardware.