

Feature	3G	4G	5G
Data Speed	Up to several Mbps (Megabits per second)	Up to hundreds of Mbps	Up to several Gbps (Gigabits per second)
Latency	Average latency of tens of milliseconds	Average latency of tens of milliseconds	Ultra-low latency of a few milliseconds
Network Architecture	Based on CDMA or GSM technology	Based on LTE (Long-Term Evolution) technology	Based on advanced LTE and new radio technologies
Bandwidth	Narrower bandwidth compared to 4G and 5G	Broader bandwidth compared to 3G and narrower than 5G	Broader bandwidth compared to 3G and 4G
Capacity	Lower capacity for simultaneous connections	Higher capacity for simultaneous connections compared to 3G	Extremely high capacity, supporting a massive number of connected devices
Connection Density	Limited support for dense device connectivity	Supports higher device density compared to 3G	Supports significantly higher device density compared to 3G and 4G
Spectrum Efficiency	Less spectrum-efficient compared to 4G and 5G	More spectrum-efficient compared to 3G and less efficient than 5G	Highly spectrum-efficient, enabling more data transmission in less spectrum
Use Cases	Voice and basic data services	Multimedia streaming, gaming, video conferencing, and advanced services	Advanced applications like IoT, autonomous vehicles, AR/VR, and smart cities

Feature	3G	4G	5G
Technology Maturity	Well-established technology	Well-established technology	Evolving technology with ongoing advancements and deployments
Deployment	Phasing out in some regions as 4G and 5G networks expand	Widespread deployment, 4G is the predominant technology globally	Ongoing deployment, expanding coverage in many regions

Related posts:

1. Difference between HTTP and HTTPS
2. Difference between IPv4 and IPv6
3. Difference between CPU and GPU
4. Difference between HDD and SSD
5. Difference between RAM and ROM
6. Difference between HTTP and FTP
7. Difference between Java and JavaScript
8. Difference between Firewall and Antivirus
9. Difference between Virus and Malware
10. Difference between FTP and SFTP
11. Difference between HTML and XML
12. Difference between Encoding and Encryption
13. Machine Learning vs Artificial Intelligence
14. Difference between Supervised vs Unsupervised vs Reinforcement learning