



Technology segmentation across 2G, 3G, 4G and 5G spectrum bands

Agenda

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3. Regional Spectrum Performance
4. Human Impact – What it Means for You
5. The Spectrum Evolution – Clearing the High-Speed Lanes

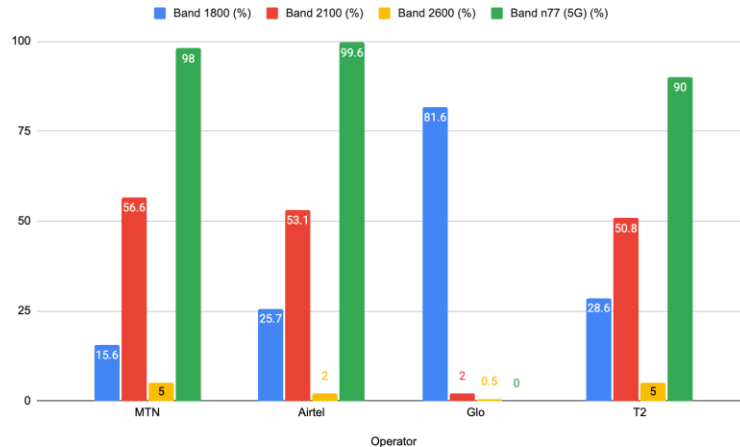
Executive Summary

- **Strategic Spectrum Migration:** Over the last six months, Nigeria has seen a decisive shift as operators re-farm legacy airwaves. Reliance on the 900 MHz (3G) band is declining, particularly in rural states like Sokoto, where resources are being moved to higher-capacity 1800/2100 MHz (4G) "highways".
- **The 5G Powerhouse (n77):** The n77 (3.5 GHz) band has emerged as the definitive fast lane. In early 2026, this spectrum is delivering speeds up to 10x faster than average 4G, with Airtel and MTN leading the adoption surge—increasing 5G test volumes by up to 44% since late 2025.
- **Closing the Urban-Rural Gap:** By deploying "High-Band" spectrum further into the regions, operators are improving digital equity. High-density hubs like Lagos and the FCT continue to set the benchmark for performance, but rural transitions from 3G to 4G are unlocking essential services like e-learning and digital payments for millions.
- **Consumer Roadmap:** To access these advancements, consumers are encouraged to use devices compatible with the n77 (5G) and 2100 MHz (4G) bands. The NCC remains committed to ensuring these airwaves are utilized efficiently to guarantee quality connectivity as a national right

The Airwaves: Frequency Band Utilization

Understanding the Lanes of Communication

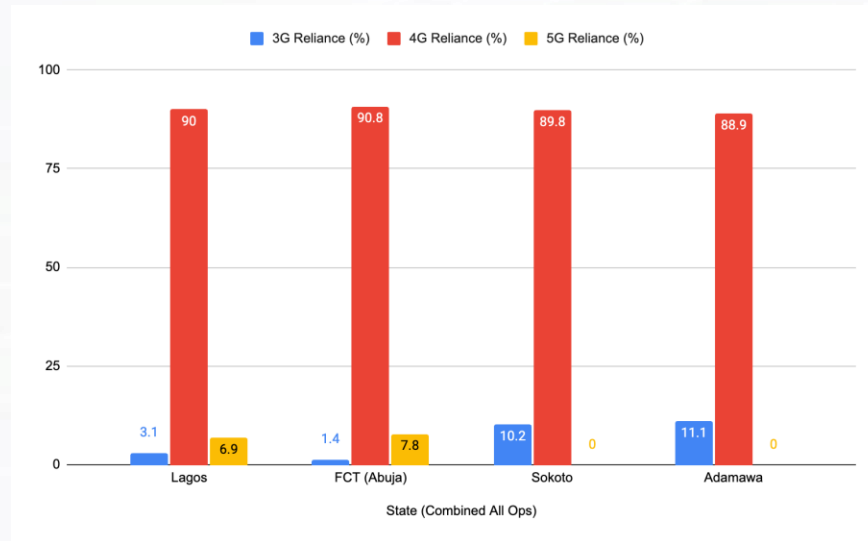
- 4G Highways: Most 4G traffic travels on the 1800 MHz and 2100 MHz bands, which balance distance and speed.
- 5G Fast Lane: The ultra-high speeds found in cities like Lagos and Abuja are delivered primarily via the n77 (3.5 GHz) band.
- Consumer Impact: The n77 band provides the highest download throughput for data-heavy tasks like video streaming



Regional Spectrum Performance

Why Your Location Affects Your Speed

- **Urban Capacity:** High-density hubs like Lagos and the FCT utilize advanced spectrum layers, leading to higher test counts and better throughput.
- **Rural Reliance:** States like Sokoto or Imo show a higher continued reliance on 3G bands, which can limit the experience for modern applications.



Human Impact – What it Means for You

Choosing the Right Tool for the Job

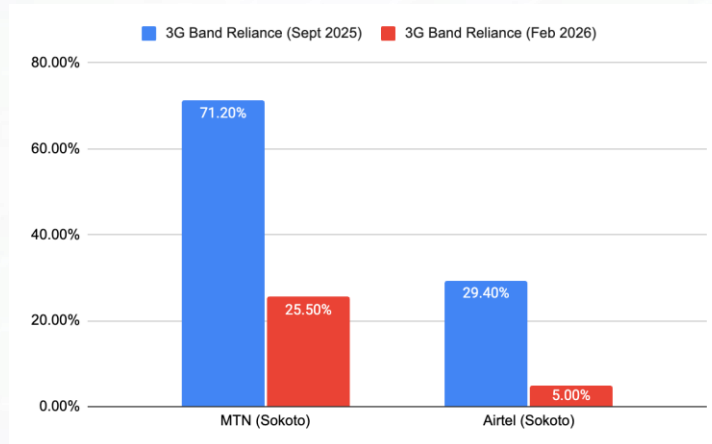
- **For Work & Gaming:** Devices supporting the **n77 (5G)** band provide the "Rocket" experience in major cities.
- **For Everyday Tasks:** **4G (1800/2100 MHz)** is the national standard for payments, social media, and calls.
- **The Rural Gap:** Reliance on **3G** in specific states highlights the NCC's priority to upgrade these regions to modern 4G/5G standards to support e-learning.



The Spectrum Evolution – Clearing the High-Speed Lanes

From Legacy to Leading Edge: How Nigeria's Airwaves are Evolving.

- Retiring the Past: Operators have made significant progress in moving users off the legacy 900 MHz (3G) bands and onto the 1800/2100 MHz (4G) "Highways".
- 5G Concentration: The n77 (3.5 GHz) band has become the definitive "Fast Lane," with leading operators delivering download speeds exceeding 250 Mbps in urban centers.
- Band Optimization: In states like Sokoto, we have seen a massive migration toward 4G bands, drastically reducing the reliance on slower 3G spectrum



Thank You