

Information Note to the Press (Press Release No.69/2025)
TELECOM REGULATORY AUTHORITY OF INDIA
www.trai.gov.in

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For Immediate Release

TRAI Assesses Network Quality Across Amritsar City

The Telecom Regulatory Authority of India (TRAI) released its Independent Drive Test (IDT) findings for the Punjab Licensed Service Area (LSA), covering extensive City routes during the month of June 2025. The drive tests, conducted under the supervision of the TRAI Regional Office, Delhi, were designed to capture real-world mobile network performance across diverse usage environments – Urban Zones, Institutional Hotspots, Public Transport Hubs, and High-Speed Corridors.

Between 17th June 2025 to 20th June 2025, TRAI teams conducted detailed tests across 343.1 kms of City Drive Test, 12 Hotspot locations, walk test of 2 kms and Inter-operator calling at 1 location. Technologies evaluated included 2G, 3G, 4G, and 5G, reflecting the service experience of users across multiple handset capabilities. The findings of IDT have already been intimated to all the TSPs concerned.

Key Parameters Assessed:

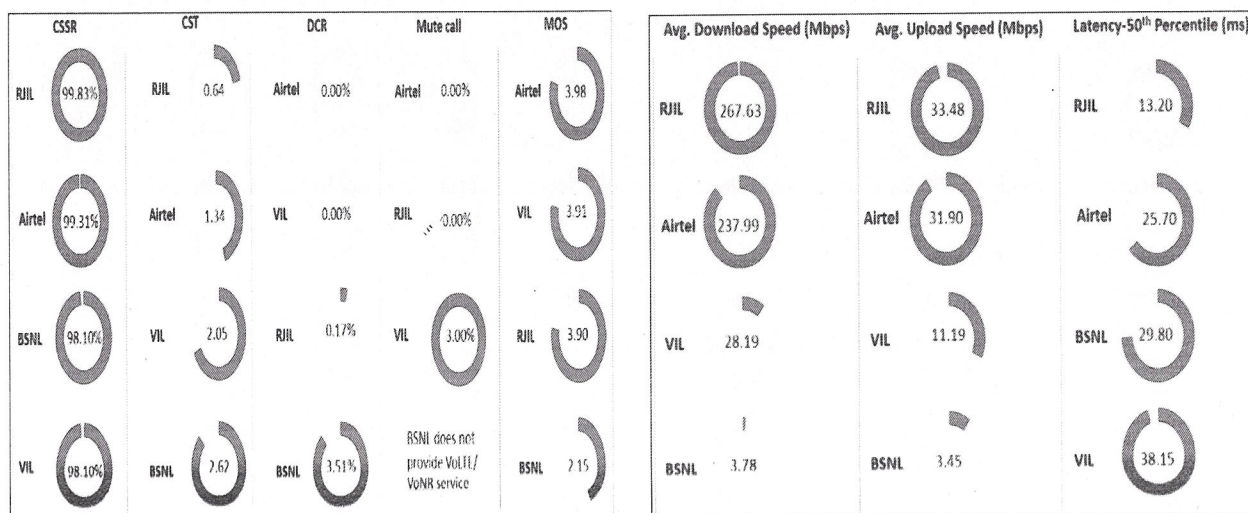
- a) **Voice Services:** Call Setup Success Rate (CSSR), Drop Call Rate (DCR), Call Setup Time, Call Silence Rate, Speech Quality (MOS), Coverage.
- b) **Data Services:** Download/Upload Throughput, Latency, Jitter, Packet Drop Rate, and Video Streaming Delay.

Call Setup Success Rate: Airtel, BSNL, RJIL and VIL have call setup success rate of 99.31%, 98.10%, 99.83% and 98.10% respectively in Auto-selection mode (5G/4G/3G/2G).

Drop Call Rate: Airtel, BSNL, RJIL and VIL have drop call rates of 0.00%, 3.51%, 0.17% and 0.00% respectively in Auto-selection mode (5G/4G/3G/2G).

Performance against key QoS parameters

CSSR: Call Setup Success Rate (in %), **CST:** Call Setup Time (in seconds), **DCR:** Drop Call Rate (in %) & **MOS:** Mean Opinion Score.



Summary-Voice Service

Call Setup Success Rate: Airtel, BSNL, RJIL and VIL have call setup success rate of 99.31%, 98.10%, 99.83% and 98.10% respectively in auto-selection mode (5G/4G/3G/2G).

Call Setup Time: Airtel, BSNL, RJIL and VIL have call setup time of 1.34, 2.62, 0.64 & 2.05 seconds respectively in auto-selection mode (5G/4G/3G/2G).

Drop Call Rate: Airtel, BSNL, RJIL and VIL have drop call rate of 0.00%, 3.51%, 0.17% & 0.00% respectively in auto-selection mode (5G/4G/3G/2G).

Call Silence/Mute Rate: Airtel, RJIL and VIL have silence call rate 0.00%, 0.00% & 3.00% respectively in packet switched network (5G/4G).

Mean Opinion Score (MOS): Airtel, BSNL, RJIL and VIL have average MOS of 3.98, 2.15, 3.90 & 3.91 respectively.

Summary-Data Service

Data Download performance (Overall): Average download speed of Airtel (5G/4G) is 237.99 Mbps, BSNL (4G/3G/2G) is 3.78 Mbps, RJIL (5G/4G) is 267.63 Mbps and VIL (4G/2G) is 28.19 Mbps.

Data Upload performance (Overall): Average upload speed of Airtel (5G/4G) is 31.90 Mbps, BSNL (4G/3G/2G) is 3.45 Mbps, RJIL (5G/4G) is 33.48 Mbps and VIL (4G/2G) is 11.19 Mbps.

Latency – 50th Percentile (Overall):

Airtel - 25.70 ms

BSNL - 29.80 ms

RJIL - 13.20 ms

VIL - 38.15 ms

Data performance - Hotspots (in Mbps):

Airtel- 4G D/L: 28.75 4G U/L: 10.80

5G D/L: 298.57 5G U/L: 41.08

BSNL- 4G D/L: 4.51 4G U/L: 5.05

RJIL- 4G D/L: 52.10 4G U/L: 10.11

5G D/L: 336.06 5G U/L: 30.99

VIL- 4G D/L: 22.01 4G U/L: 16.60

Note- “D/L” Download speed, “U/L” Upload speed

The assessment in Amritsar included high-density neighbourhoods such as Loharka Kalan, Raja Sansi, Attari, Chheharta, Sangna, Mandiala, Chatiwind, Bhagatpura, Nawanpind, Verka, Amritsar Cantonment & Kot Khalsa etc., TRAI also evaluated real-world conditions at Amritsar College of Engineering and Technology, Golden Temple Market, Atari Wagah Border, Baba Deep Singh Gurudwara, DAV International School, Durgyana Temple, Fortis Escorts Hospital, Gobindgarh Fort, Golden Temple, Guru Nanakdev University, IIM Amritsar, ISBT Amritsar.

The walk test, conducted on 20th June 2025 in Amritsar City, focused on, Golden Temple Market, capturing mobile network behaviour in crowded pedestrian environments.

The tests were conducted using TRAI suggested equipment and standardised protocols in real-time environments. The detailed report is available at TRAI website www.trai.gov.in. For any clarification/information, Shri Vivek Khare, Advisor (Regional Office, Delhi) TRAI may be contacted on email: adv.ca@trai.gov.in or at Tel. No. +91-11-20907772.

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