

TELECOM REGULATORY AUTHORITY OF INDIA

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For Immediate Release

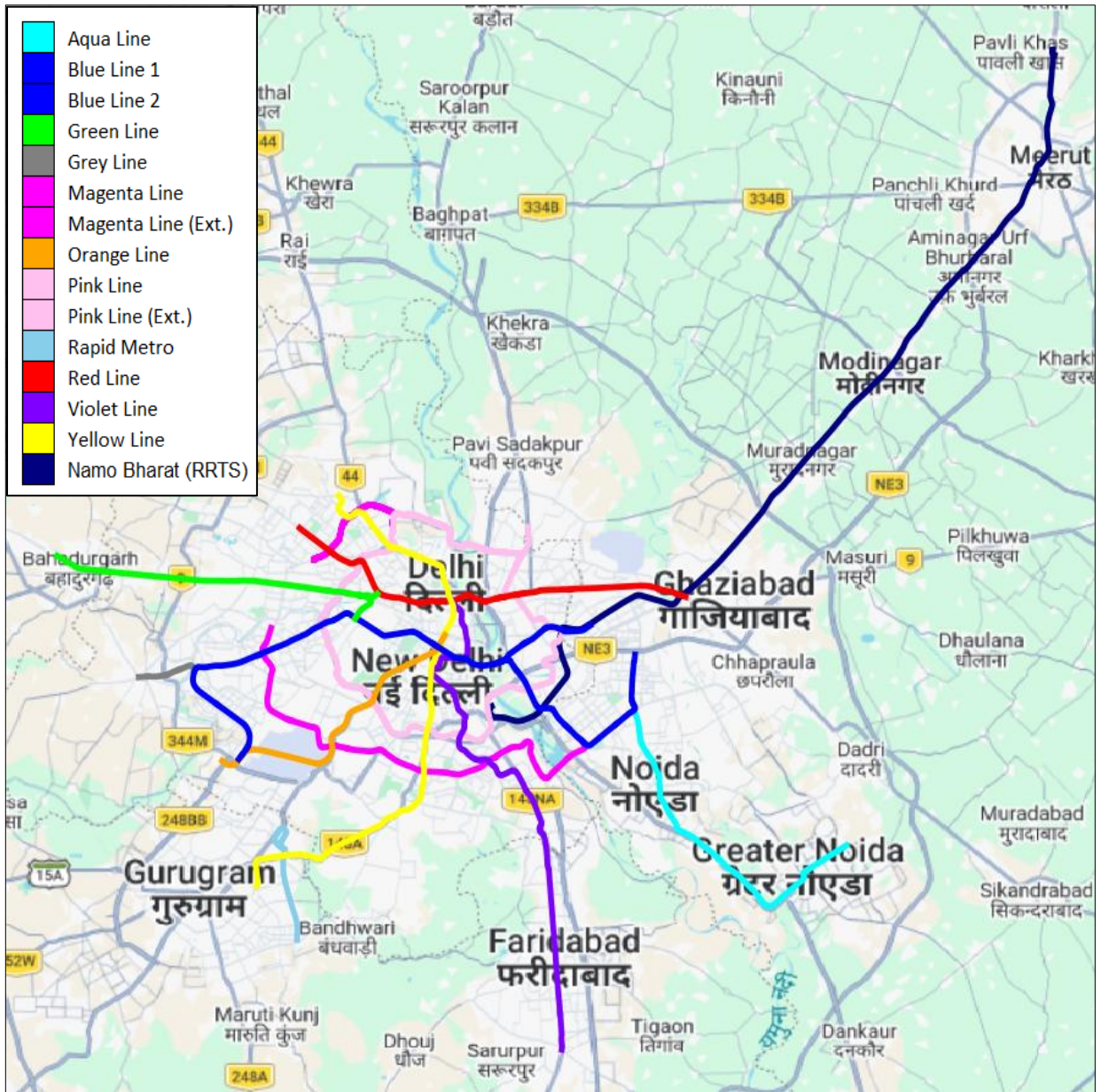
TRAI Assesses Mobile Network Quality Across metro routes in Sector-51 Noida to Depot Station (Aqua Line), Dwarka Sector-21 to Noida Electronic City (Blue Line 1), Vaishali to Yamuna Bank (Blue Line 2), Kirti Nagar to Brigadier Hoshiyar Singh (Green Line), Dwarka to Dhansa Bus Stand (Grey Line), Botanical Garden to Krishna Park Extension (Magenta Line), Deepali Chowk to Majlis Park (Magenta Line Ext.), New Delhi to Yashobhoomi Dwarka Sector-25 (Orange Line), Mayur Vihar-1 to Maujpur-Babarpur (Pink Line), Shiv Vihar to Mayur Vihar-1 (Pink Line Ext.), Sector 55-56 to Phase-3 (Rapid Metro), Shaheed Sthal to Rithala (Red Line), Raja Nahar Singh (Ballabhgarh) to Kashmere Gate (Violet Line), Samaypur Badli to Millennium City Centre (Yellow Line) & Delhi to Meerut (Namo Bharat RRTS) etc.

The Telecom Regulatory Authority of India (TRAI) has released findings of Independent Drive Test (IDT) conducted across metro routes under Delhi Metro Rail Corporation, Noida Metro Rail Corporation and National Capital Region Transport Corporation under Delhi LSA, during the month of Apr 2026, for information of general telecom consumers. The purpose of this drive test is to assess and verify real time quality of mobile network services (both voice & data) provided by Telecom Service Providers (TSPs). During the IDT, TRAI captures performance of TSPs for key Quality of Service (QoS) parameters like Coverage, Call Drop Rate (CDR), Call Setup Success Rate (CSSR), data Download (DL) and Upload (UL) throughput etc., which are then published to inform Consumers and encourage TSPs to improve their services.

2. These IDTs have been designed to capture on ground mobile network performance of all TSPs across diverse usages environment like cities, hotspots, public transport hubs, etc. In this type of drive testing, live data and voice sessions are established using SIM cards from all TSPs over 2G, 3G, 4G, and 5G networks. Multiple advanced test handsets are used, and the sessions are monitored and analysed in real-time using advanced Software Systems.

3. TRAI, through its appointed agency, conducted drive tests across 490 Km of metro routes during 01st to 04th Apr 2026 & 14th Apr 2026 in Delhi LSA. These tests were conducted under the supervision of the TRAI Regional Office Delhi. The observations presented in drive test reports represent the performance of the TSPs on the area/ route under test on the day/ time of conducting the drive test.

4. **Drive Test Route Map:** The following map provides overview of drive test routes indicating metro routes, as per the legends shown on the map: -



5. Key Parameters Assessed

- a) **Coverage Gap:** Percentage of samples, for which signal strength observed less than the minimum prescribed signal strength for respective technology (2G/ 3G/ 4G/ 5G).
- b) **Voice Services:** Call Setup Success Rate (CSSR), Drop Call Rate (DCR), Call Setup Time, Call Silence Rate, Speech Quality (MOS).
- c) **Call Silence Instance:** Number of call silence instances occurred during the calls.
- d) **Data Services:** Download/ Upload Throughput, Latency, Jitter, Packet Drop Rate

6. The overall mobile network performance in metro routes for the key parameters has been summarised below: -

- a) Coverage Gap - The signal strength observed during voice testing on the drive test route in auto-selection mode (5G/4G/3G/2G), measured as the number of samples having poor signal strength out of the total samples collected, was 1280/ 52666 for Airtel, 20768/ 43220 for MTNL, 1297/ 52325 for RJIL and 1490/ 52753 for VIL. Details of the coverage gaps have been provided in the map **Annexed**.
- b) Dropped Calls - Dropped calls in auto-selection mode (5G/ 4G/ 3G/ 2G), measured as the number of dropped calls out of the number of successfully established calls, were 5/ 491 for Airtel, 51/ 346 for MTNL, 8/ 487 for RJIL and 10/ 490 for VIL. Details of the dropped call locations have been provided in the map **Annexed**.
- c) Data Download and Upload Throughput:
 - i) Data Download performance (Overall): Average download speed was observed as 81.72 Mbps for Airtel (5G), 4.30 Mbps for MTNL (4G), 141.28 Mbps for RJIL (5G) and 23.94 Mbps for VIL (5G). Detail of Download throughput has been provided in the map **Annexed**.
 - ii) Data Upload performance (Overall): Average upload speed was observed as 25.98 Mbps for Airtel (5G), 1.84 Mbps for MTNL (4G), 19.99 Mbps for RJIL (5G) and 16.96 Mbps for VIL (5G). Detail of Upload throughput has been provided in the map **Annexed**.

Locations of Dropped Calls can be seen by clicking red dot on the map **Annexed**.

7. Details of drive test route and area covered during the IDT is as under: -

a) Metro Routes:

1. Sector-51 Noida to Depot Station (Aqua Line)
2. Dwarka Sector-21 to Noida Electronic City (Blue Line 1)
3. Vaishali to Yamuna Bank (Blue Line 2)
4. Kirti Nagar to Brigadier Hoshiyar Singh (Green Line)

5. Dwarka to Dhansa Bus Stand (Grey Line)
6. Botanical Garden to Krishna Park Extension (Magenta Line)
7. Deepali Chowk to Majlis Park (Magenta Line Ext.)
8. New Delhi to Yashobhoomi Dwarka Sector-25 (Orange Line)
9. Mayur Vihar-1 to Maujpur-Babarpur (Pink Line)
10. Shiv Vihar to Mayur Vihar-1 (Pink Line Ext.)
11. Sector 55-56 to Phase-3 (Rapid Metro)
12. Shaheed Sthal to Rithala (Red Line)
13. Raja Nahar Singh (Ballabgarh) to Kashmere Gate (Violet Line)
14. Samaypur Badli to Millennium City Centre (Yellow Line)
15. Delhi to Meerut (Namo Bharat RRTS)

8. The findings of this IDT report have been shared with respective TSPs for taking further necessary action at their end. Detailed reports of IDT are made available on the TRAI website at www.traigov.in. For any clarification or additional information, an email can be sent to adv.ca@traigov.in or Regional Office of TRAI at Delhi RO can be contacted on telephone no. +91-11-20907772.

Vivek Khare
15/6/2026
(Vivek Khare)

Advisor, RO Delhi, TRAI

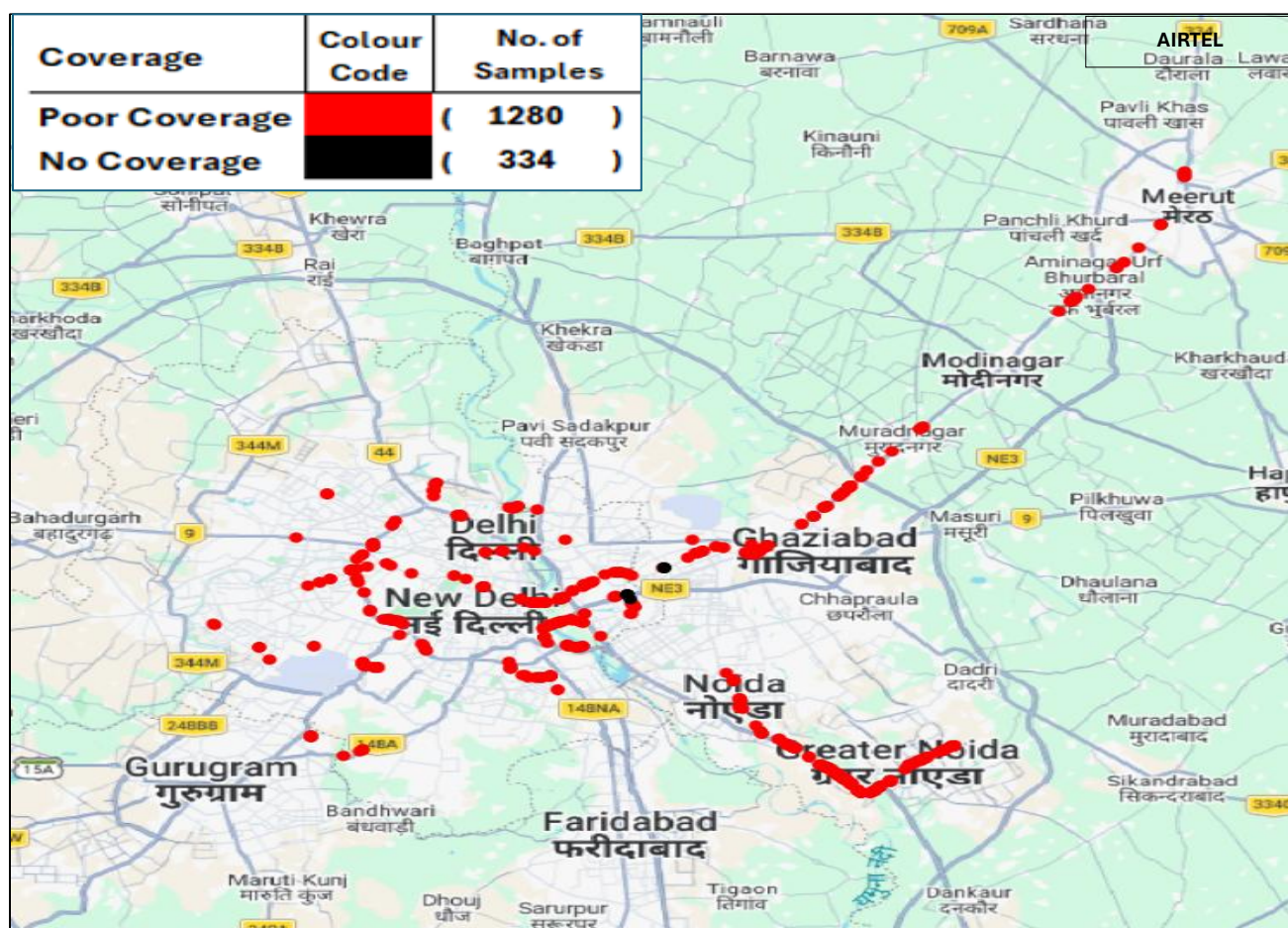
Delhi Metro Rail Corporation, Noida Metro Rail Corporation and National Capital Region Transport Corporation routes:

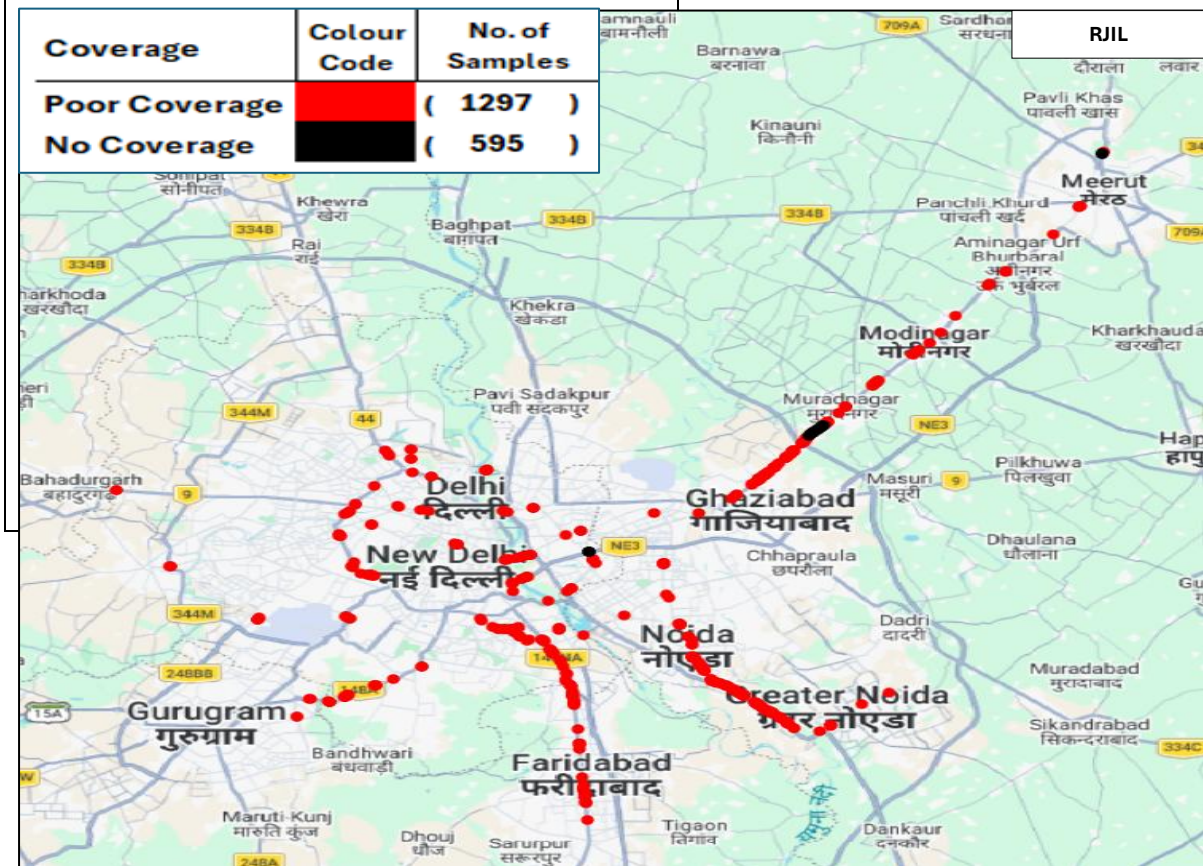
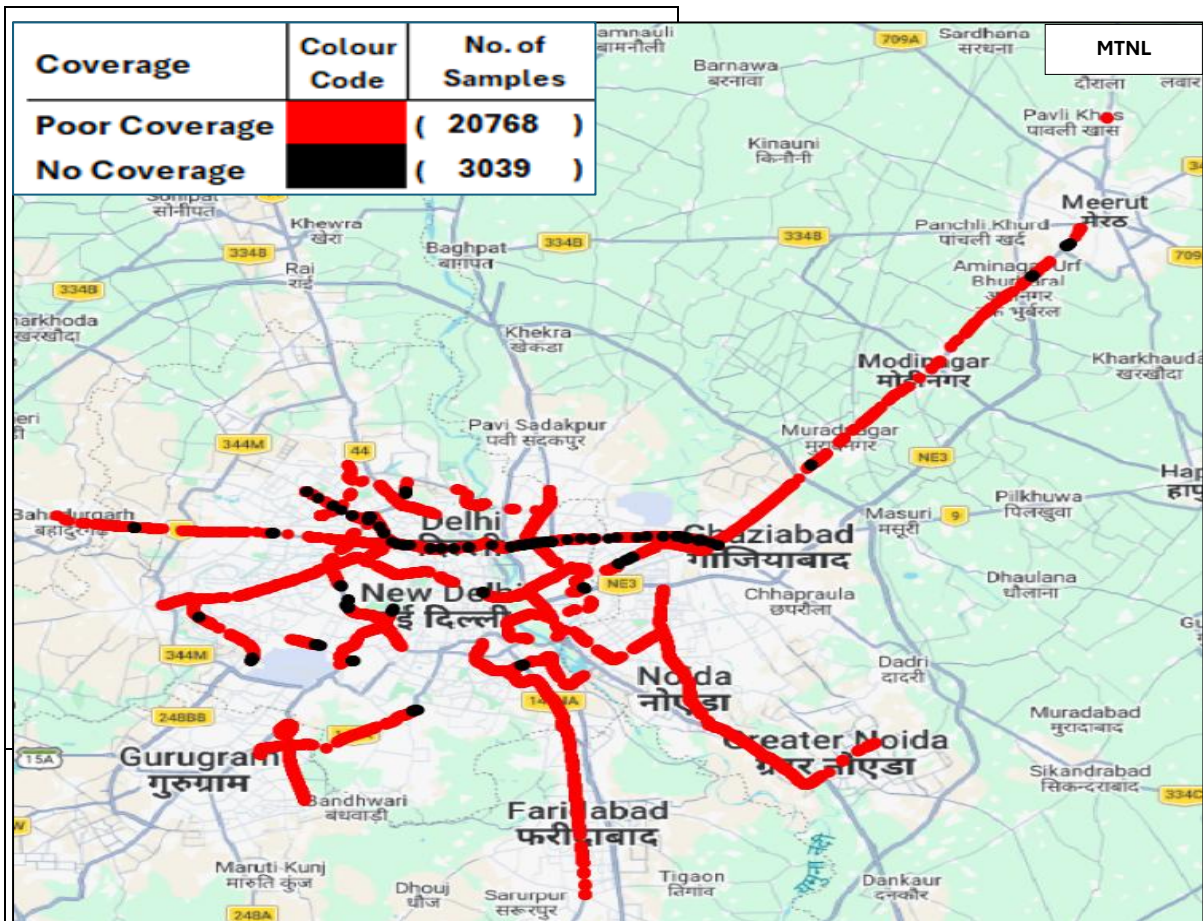
- a) **Coverage Gap** – The coverage distribution found less than the minimum specified signal strength for the drive test route in auto-selection mode (5G/4G/3G/2G) during voice testing, is as below:

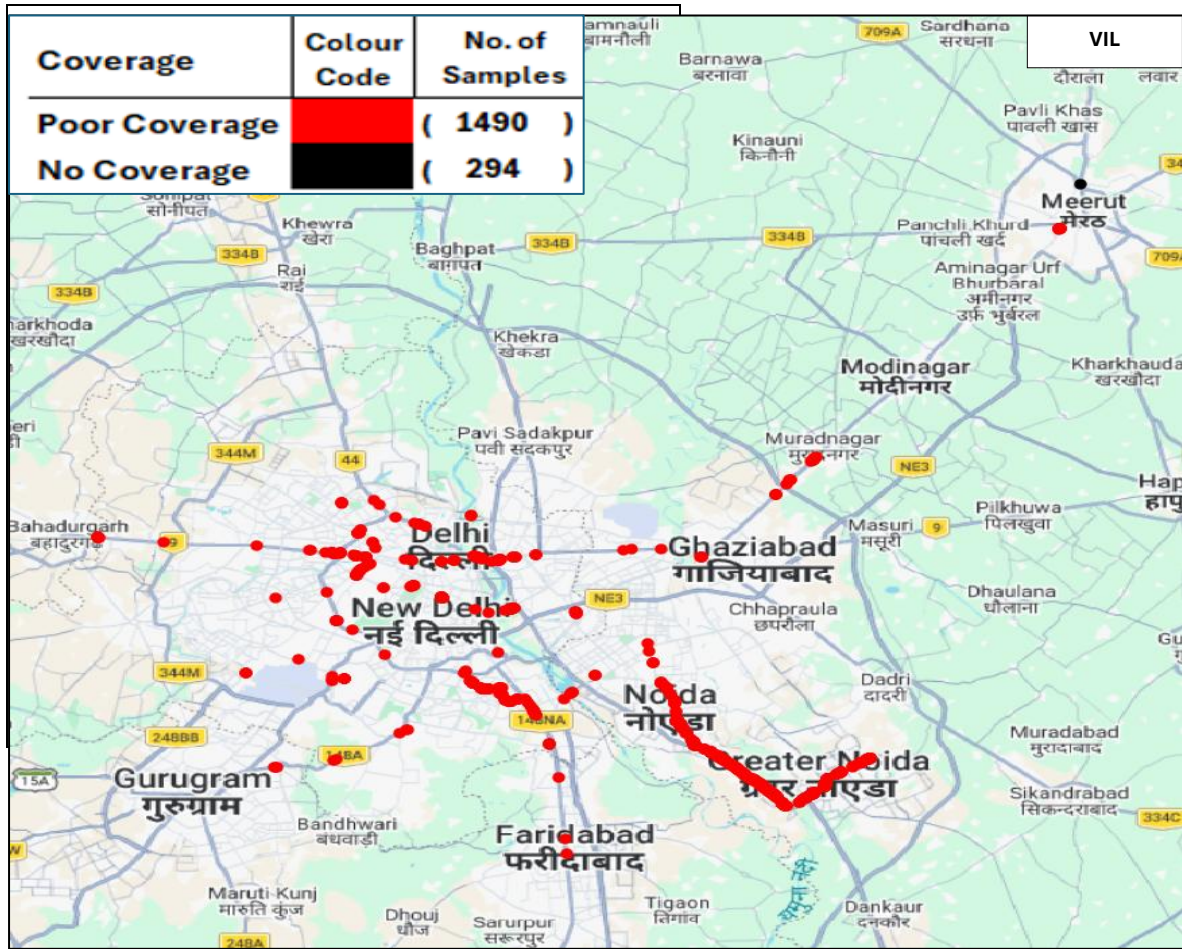
Parameter	AIRTEL	MTNL	RJIL	VIL
Total Number of Samples captured on Drive test route	52666	43220	52325	52753
Number of Samples having poor signal strength	1280	20768	1297	1490
Number of Samples having limited service	334	3039	595	294

Note: Signal strength has been considered poor if it falls below -110 dBm for 5G & 4G, -90 dBm for 3G, and -85 dBm for 2G.

Coverage Gap observed





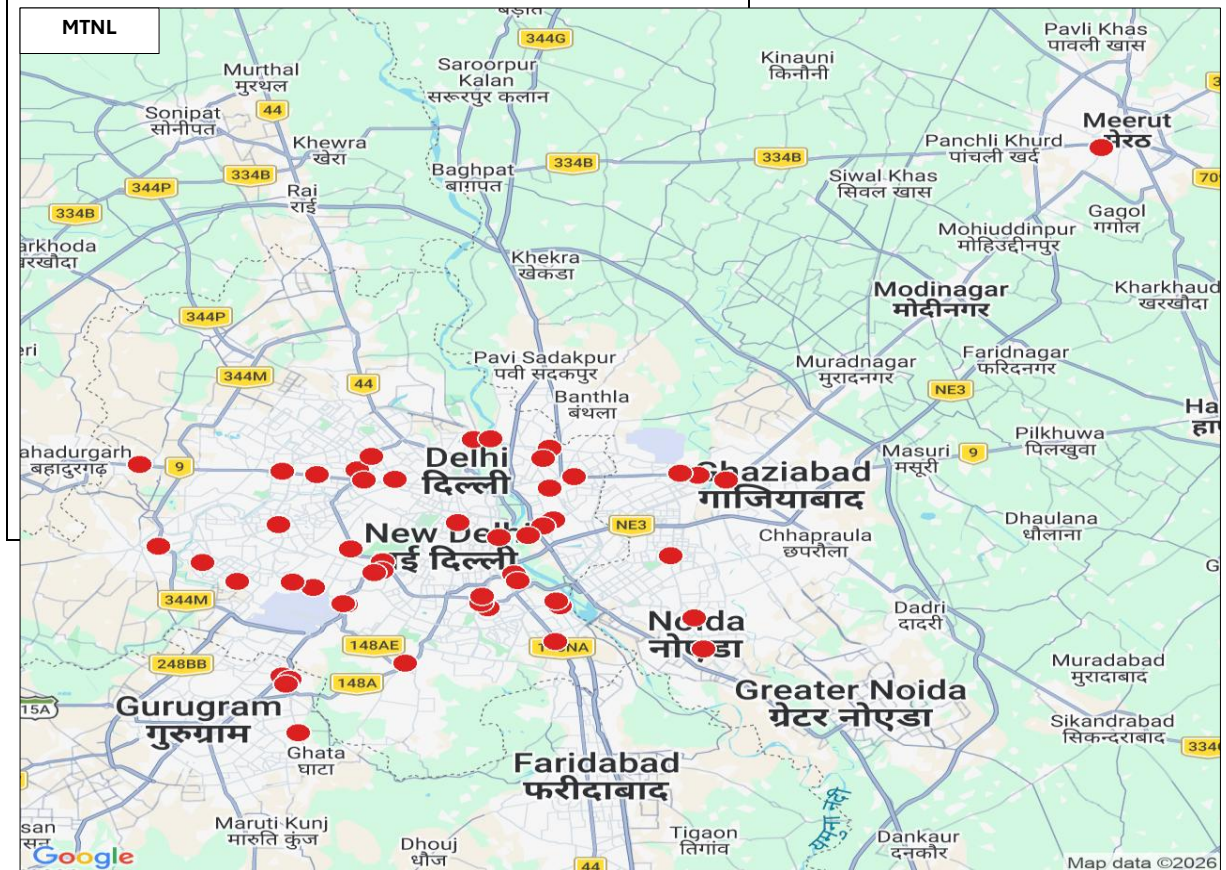
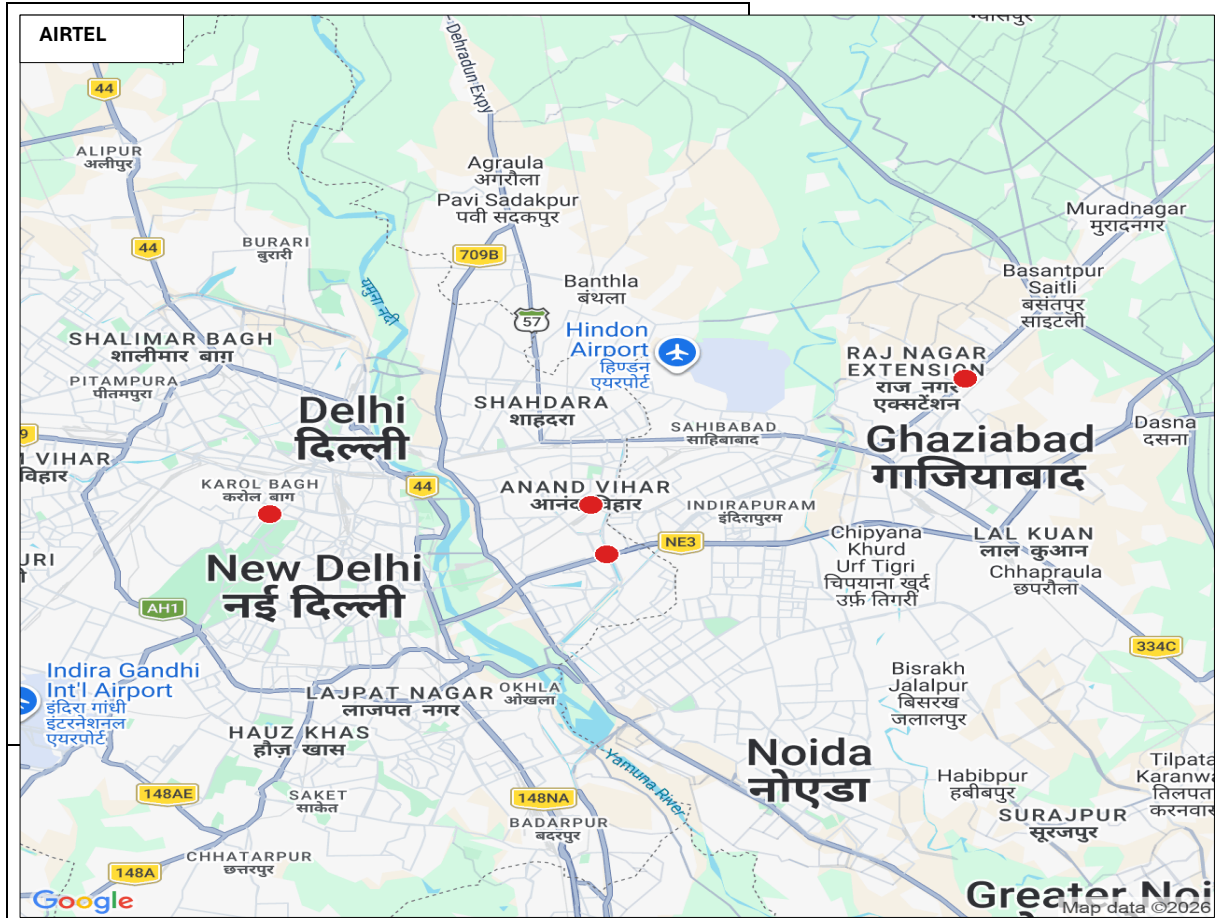


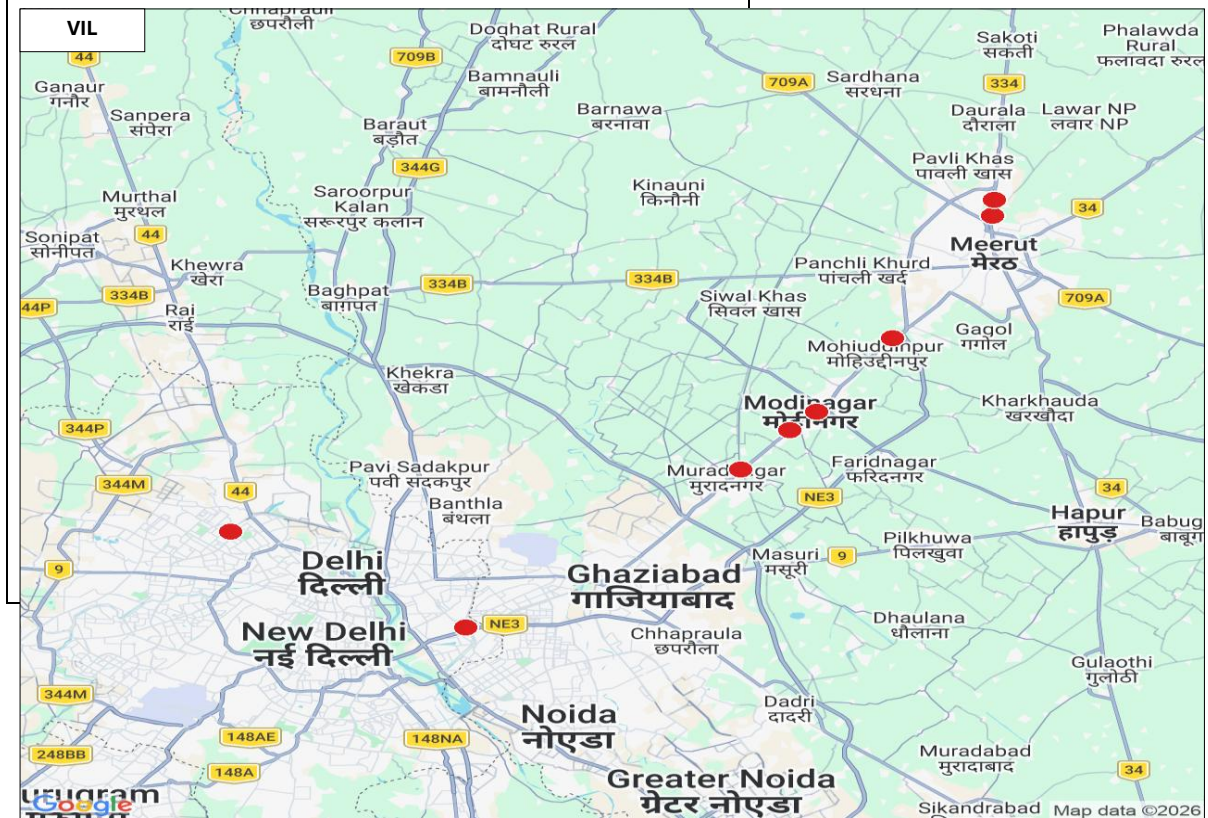
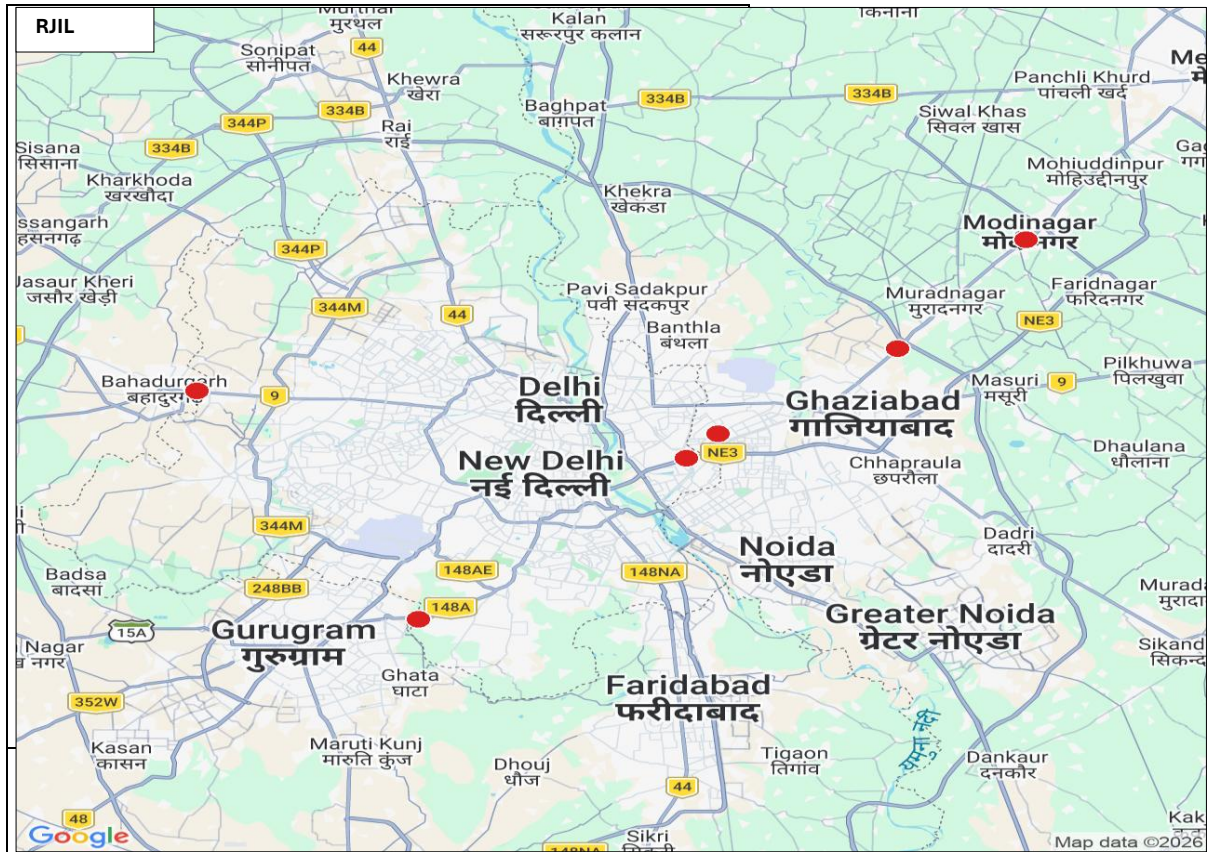
Note: Plot is based on Dynamic Drive Test results only.

b) **Dropped Calls** - The TSP-wise details of dropped calls in auto-selection mode (5G/ 4G/ 3G/ 2G) are as below:

Parameter	AIRTEL	MTNL	RJIL	VIL
Number of successful Calls Established	491	346	487	490
Number of dropped Calls	5	51	8	10

Locations of Dropped Calls





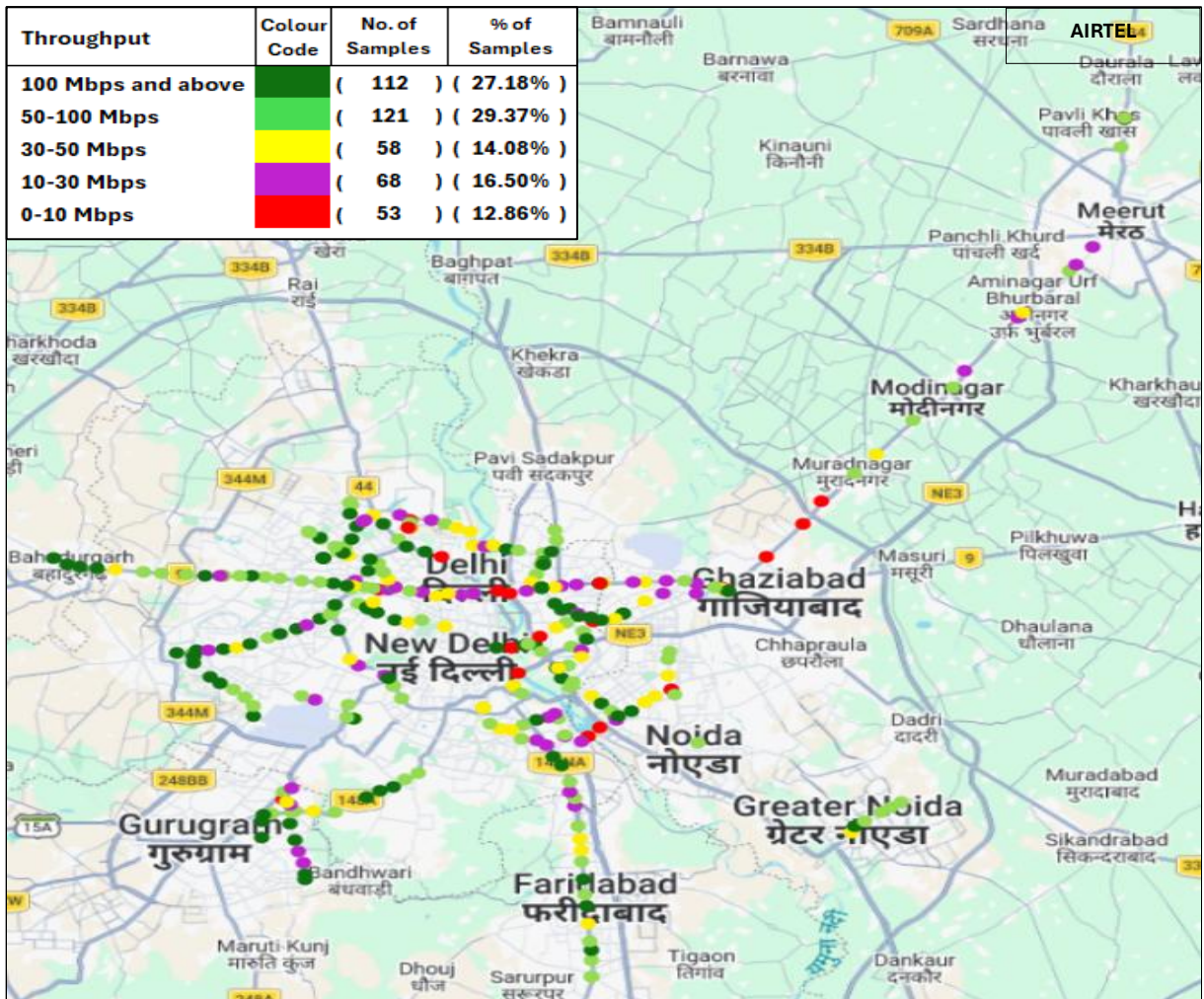
Note: Dropped calls locations are shown in red colour, and which can be clicked to know the exact location (latitude and longitude) on the map.

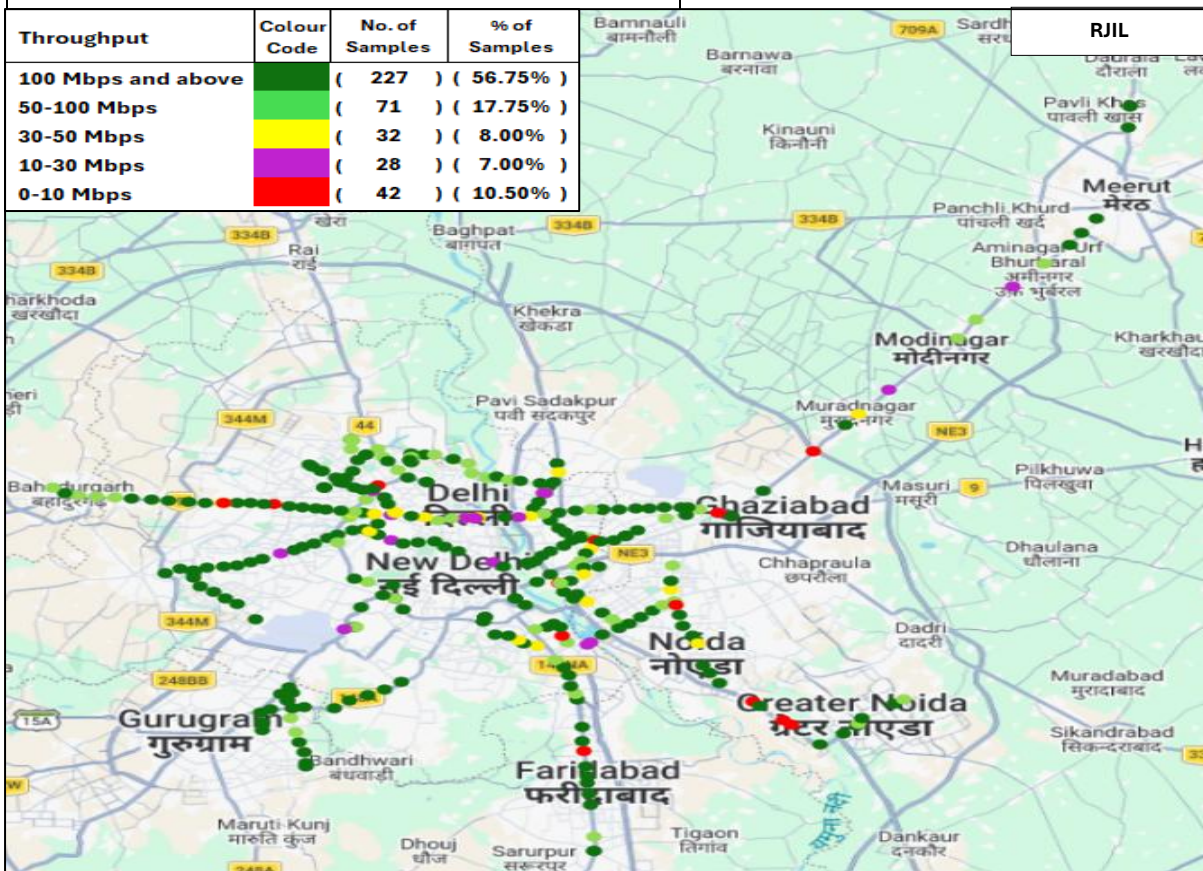
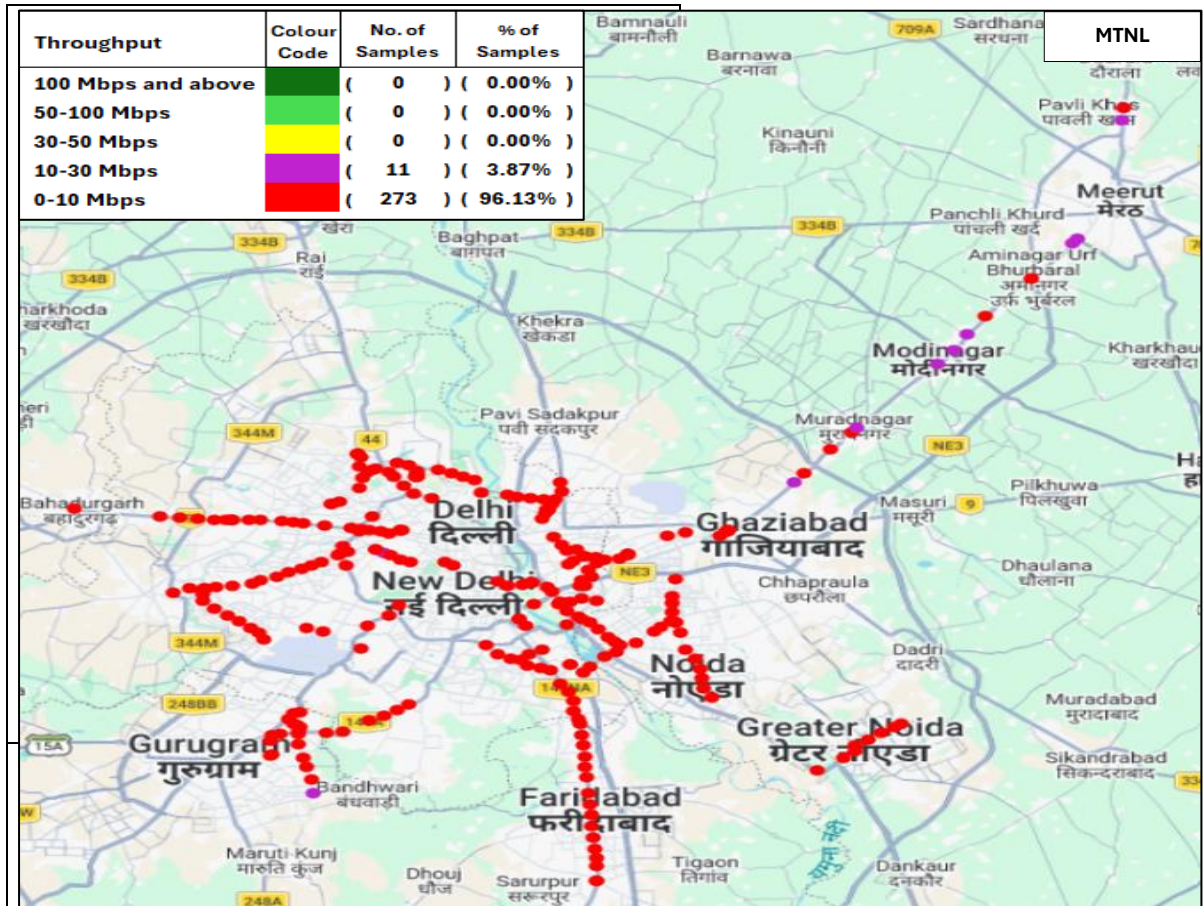
Note: - Airtel – 1, MTNL – 1, RJIL – 2, and VIL – 2 drop calls were not plotted on the map, as these call drops were observed during the underground metro route.

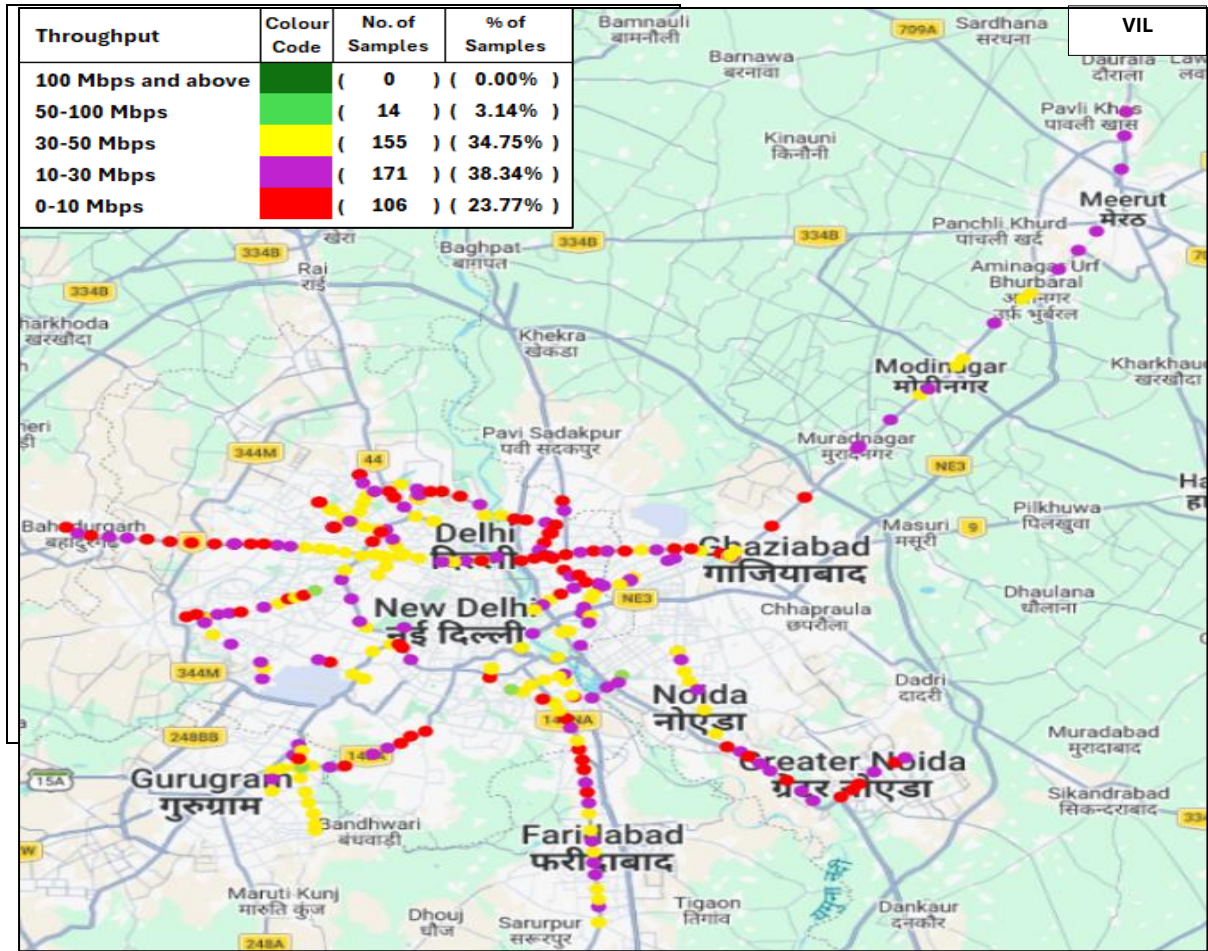
c) **Data Download and Upload throughput:** The TSP-wise details of **Average Download (DL)** and **Upload (UL) throughput** against declared typical DL/UL Throughput for month, in Auto-selection mode (5G/4G/3G/2G) are as below:

(i) **Download Throughput**

Parameter	Measured in	AIRTEL (upto 5G)	MTNL (upto 4G)	RJIL (upto 5G)	VIL (upto 5G)
Typical Download throughput declared by TSP	(Mbits/s)	37.72	8.00	15.00	15.00
Average Download Throughput measured during IDT	(Mbits/s)	81.72	4.30	141.28	23.94



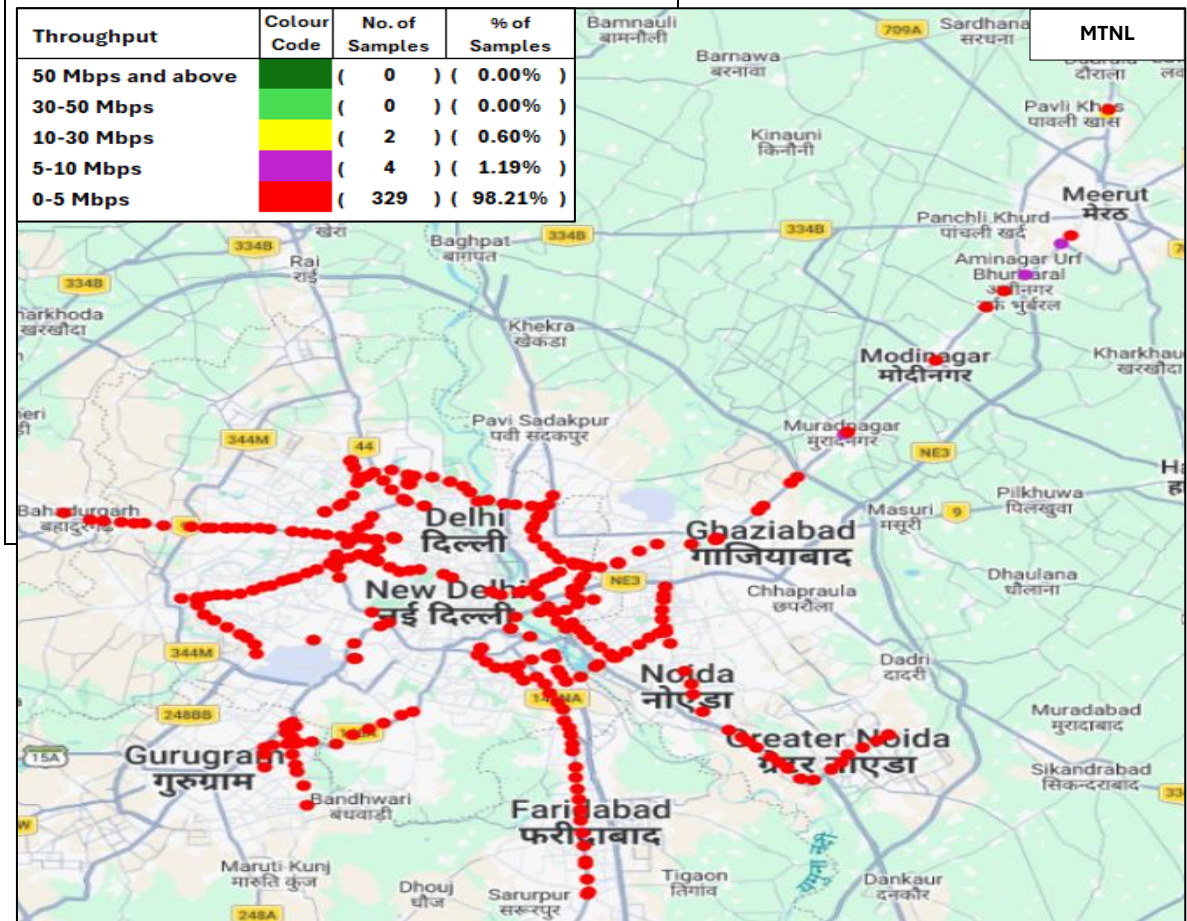
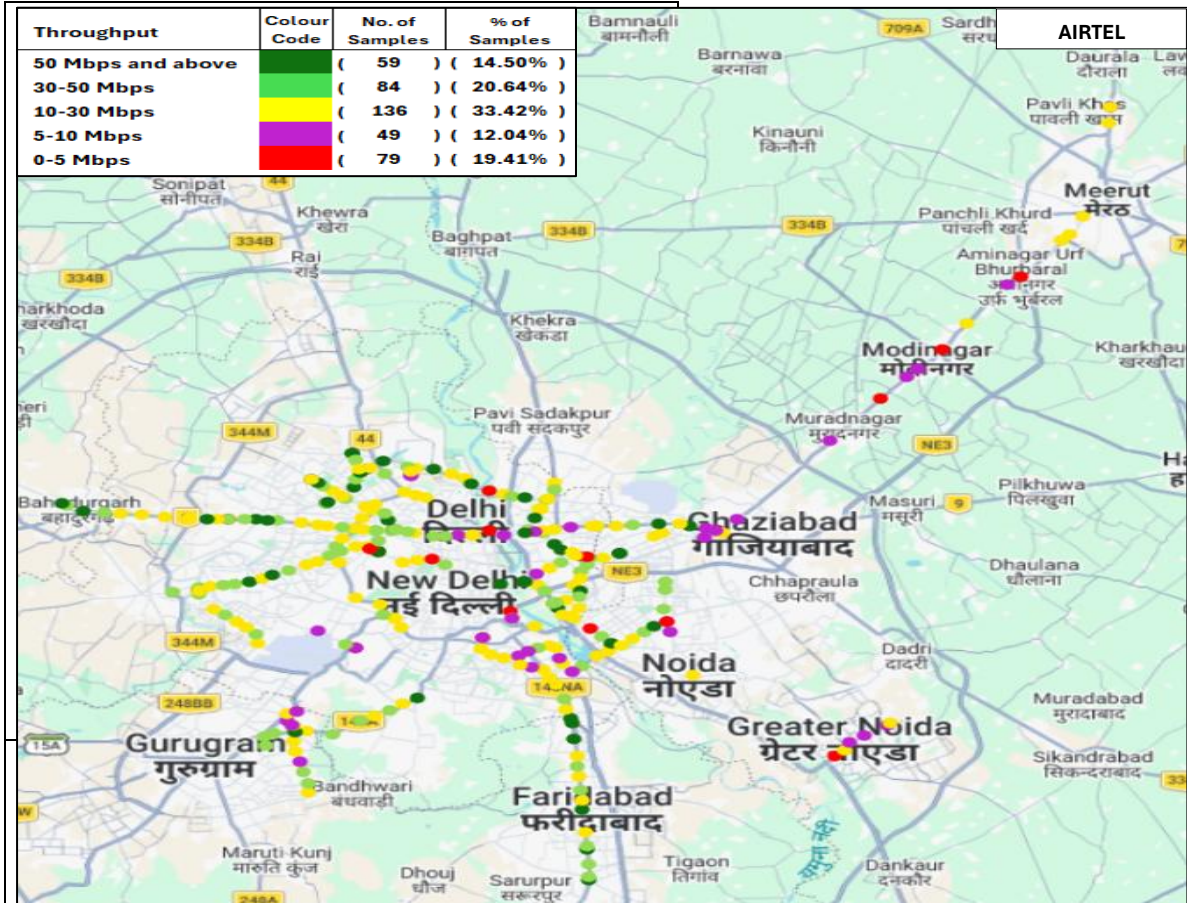


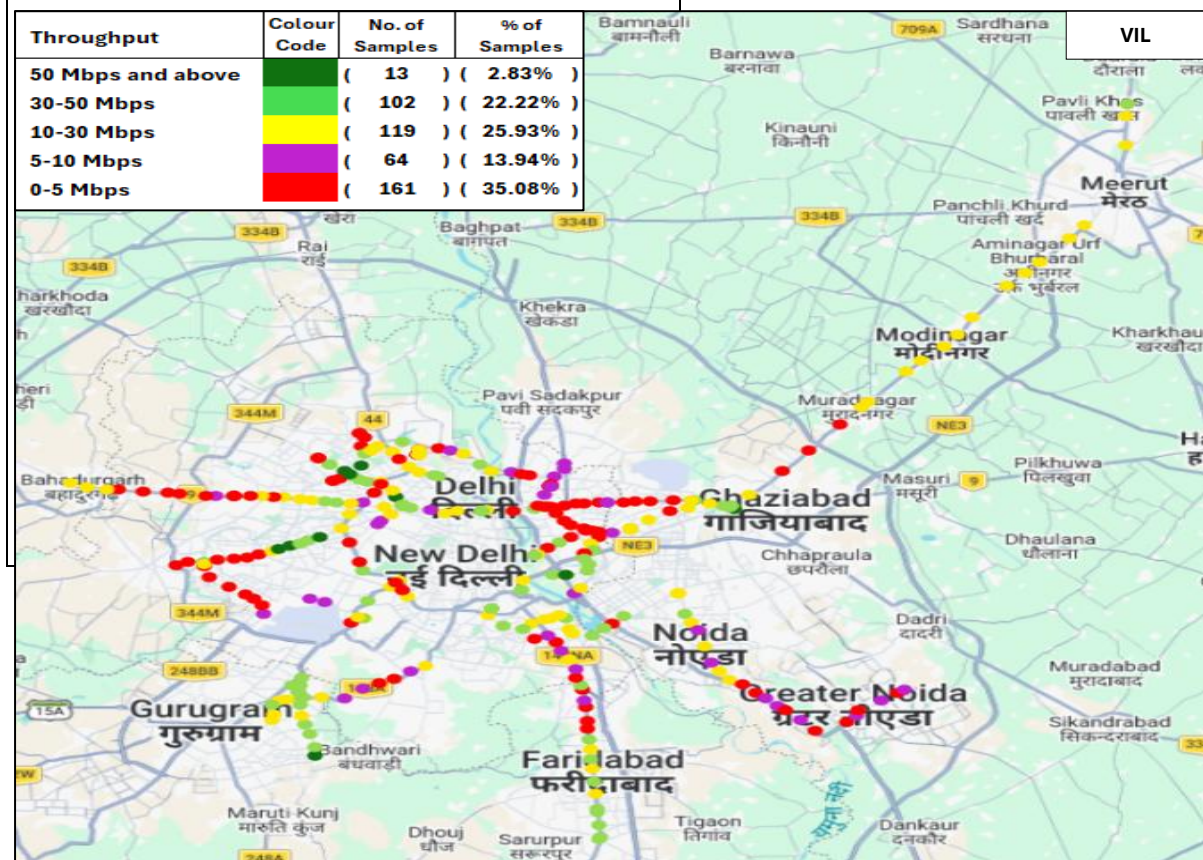
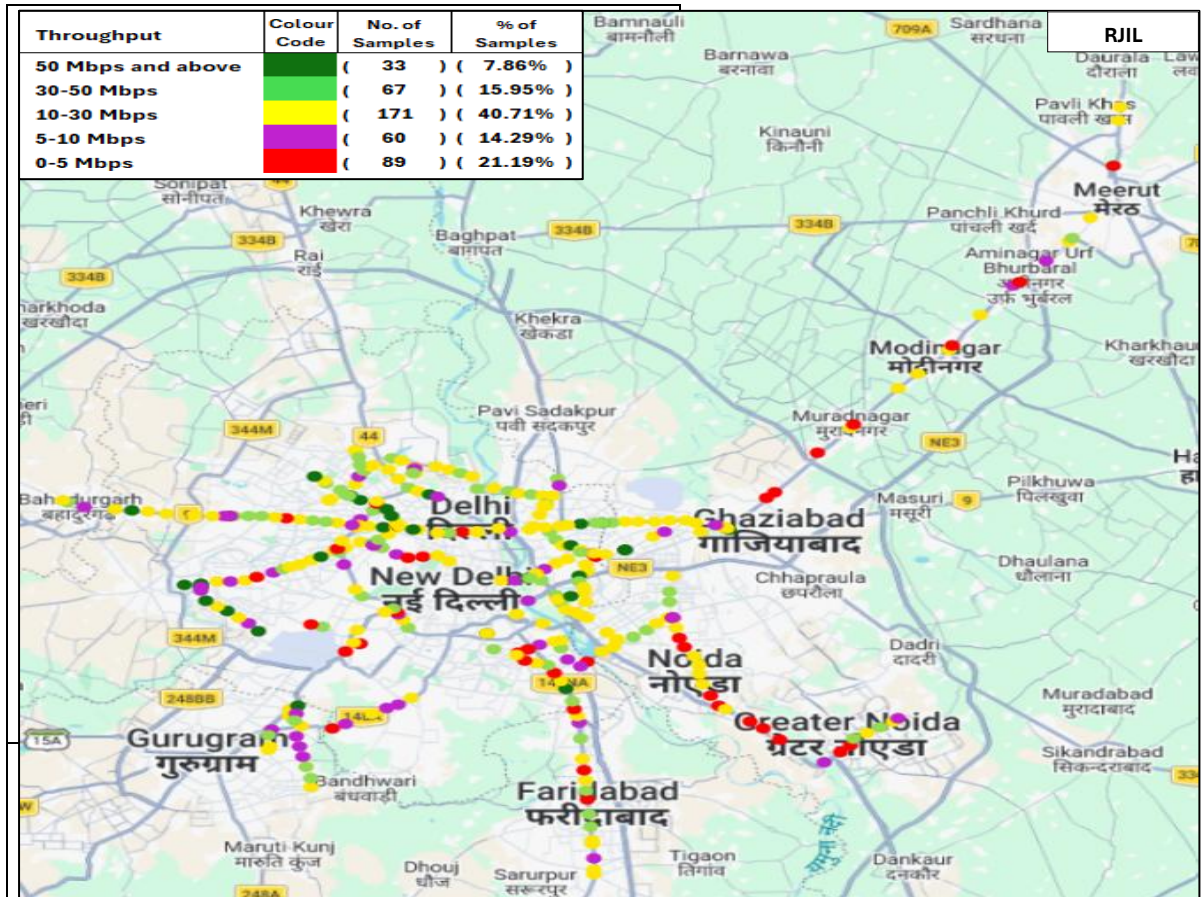


Note: Plot is based on Dynamic Drive Test results only.

(ii) **Upload Throughput**

Parameter	Measured in	AIRTEL (upto 5G)	MTNL (upto 4G)	RJIL (upto 5G)	VIL (upto 5G)
Typical upload throughput declared by TSP	(Mbits/s)	7.71	1.00	7.00	8.00
Average Upload Throughput measured during IDT	(Mbits/s)	25.98	1.84	19.99	16.96





Note: Plot is based on Dynamic Drive Test results only.