RANTCELL · NETWORK PERFORMANCE REPORT

LTE Drive Test: iOS vs Android

Bengaluru (north), 29 October 2026 · Benchmark of two handsets on the same route

DATE / TIME	NETWORK	ROUTE	DEVICES
29 Oct 2026, 10:57 to 12:59	LTE, PLMN 404-45	≈ 62 km, mean 29 km/h	iPhone (RantCell iOS app) Pixel 6a (RantCell survey)

Key performance indicators

Values shown as ● iOS ● Android

SAMPLES	MEDIAN RSRP	RSRP ≥ −100 DBM
7,310 **6,725**	**-96** **-91**	**66%** **76%**
about one per second	dBm	share of samples

MEDIAN RSRQ	MEDIAN SNR	SNR BELOW 0 DB
-14 **-12**	**3.6** **2.0**	**28%** **37%**
dB	dB	share of samples

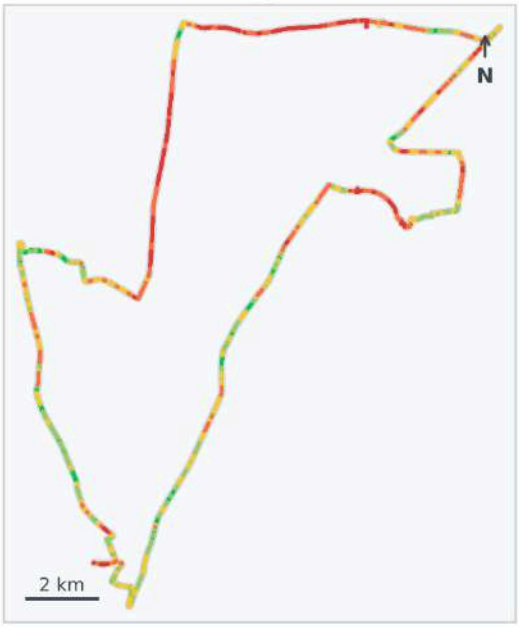
Signal quality distribution



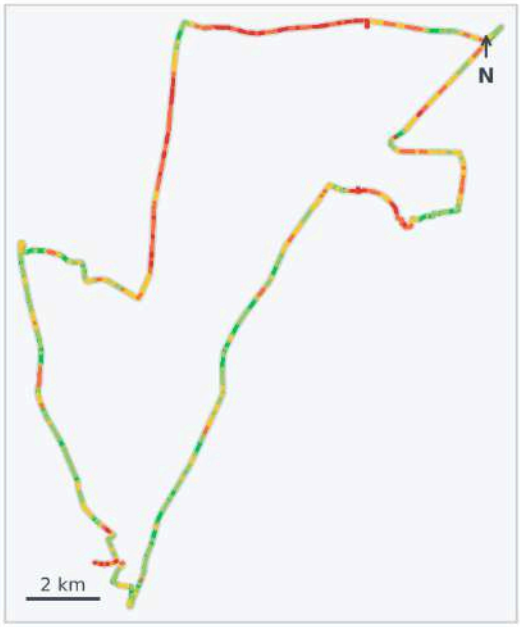
Key findings

- **Coverage is mostly adequate.** 76% of Android samples and 66% of iOS samples reached RSRP of −100 dBm or better. The weakest stretches are on the northern part of the route: the western north–south road and the northern east–west road, where both handsets report Poor or Bad RSRP.
- **Signal quality is limited by interference rather than by coverage.** Median SNR is only 3.6 dB (iOS) and 2.0 dB (Android), and 28% / 37% of samples are below 0 dB, even where RSRP is good. This points to cell overlap and pilot pollution on the main layer.
- **One carrier carries the traffic.** Band 3 (EARFCN 1301) served 84%–85% of samples on both phones. Band 40 and Band 8 were used mainly at the cell edge, with weaker RSRP and SNR.
- **Part of the gap between phones comes from the devices, not the network.** When both phones were on the same EARFCN and PCI within 2 seconds of each other, iOS reported RSRP a median 4 dB lower than Android. Compare absolute levels between the two phones with this in mind.
- **Serving cells changed often.** iOS saw 215 different EARFCN/PCI combinations and 318 serving-cell changes; Android saw 195 and 314, about one change every 23 seconds.

iOS (RantCell iOS app)



Android (Pixel 6a)

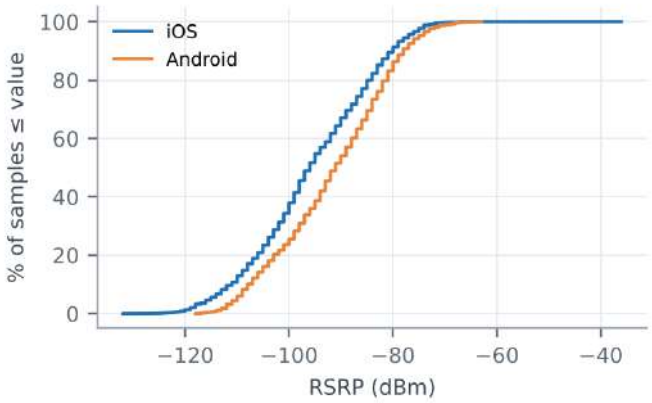


Excellent ≥ -80 dBm · Good -90 to -80 dBm · Fair -100 to -90 dBm · Poor -110 to -100 dBm · Bad < -110 dBm

Each dot is one sample, coloured by its RSRP quality band and drawn at its recorded GPS position. Weaker samples are drawn on top.

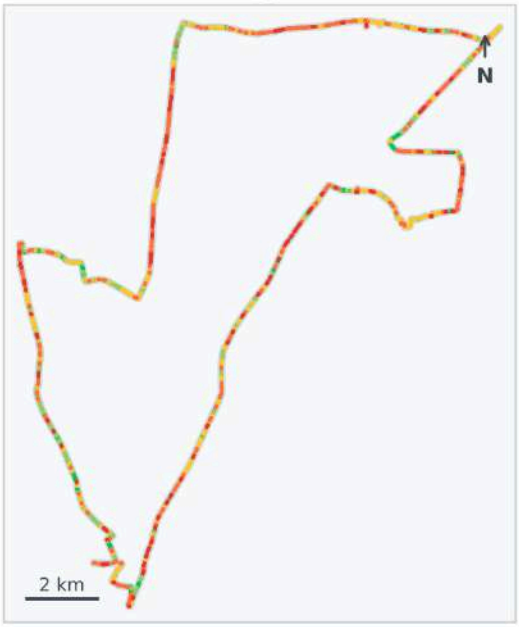
Quality	Range	iOS	Android
Excellent	≥ -80 dBm	10.5%	16.8%
Good	-90 to -80 dBm	25.1%	31.7%
Fair	-100 to -90 dBm	30.0%	27.9%
Poor	-110 to -100 dBm	23.5%	19.3%
Bad	< -110 dBm	10.8%	4.4%

RSRP (dBm)	iOS	Android
Mean	-95.6	-91.6
Median	-96.0	-91.0
10th percentile	-111.0	-108.0
90th percentile	-80.0	-78.0
Minimum	-132.0	-118.0
Maximum	-36.0	-63.0
Samples	7,310	6,725

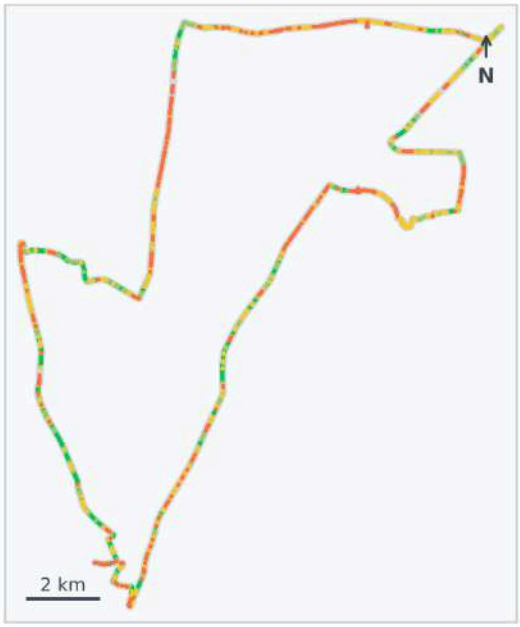


RSRP measures the received reference signal power from the serving cell. Median: iOS **-96 dBm**, Android **-91 dBm**. The Android curve sits to the right of iOS over the whole range, consistent with the ~4 dB offset seen on matched cells. Both phones agree on where coverage is weak.

iOS (RantCell iOS app)



Android (Pixel 6a)



Excellent ≥ -10 dB Good -12 to -10 dB Fair -15 to -12 dB Poor -20 to -15 dB Bad < -20 dB

Each dot is one sample, coloured by its RSRQ quality band and drawn at its recorded GPS position. Weaker samples are drawn on top.

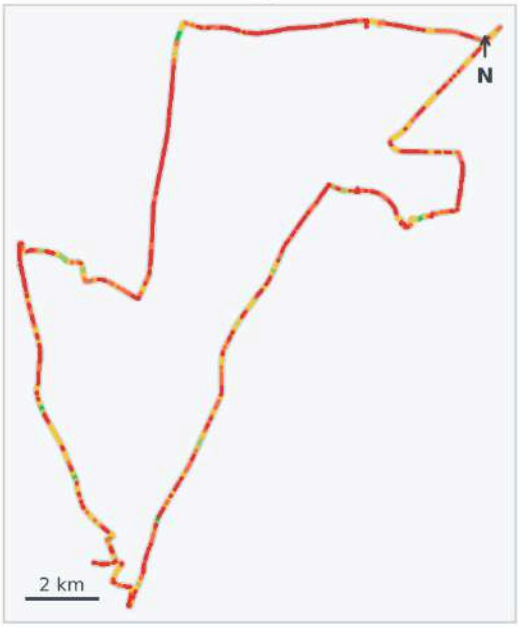
Quality	Range	iOS	Android
Excellent	≥ -10 dB	12.8%	26.9%
Good	-12 to -10 dB	21.3%	26.5%
Fair	-15 to -12 dB	33.6%	31.0%
Poor	-20 to -15 dB	24.8%	15.6%
Bad	< -20 dB	7.5%	0.0%

RSRQ (dB)	iOS	Android
Mean	-14.3	-12.5
Median	-14.0	-12.0
10th percentile	-19.0	-17.0
90th percentile	-10.0	-9.0
Minimum	-40.0	-20.0
Maximum	-5.0	-5.0
Samples	7,304	6,587



RSRQ shows the reference signal quality relative to the total received power, so it falls with load and interference. Median: iOS **-14 dB**, Android **-12 dB**. About a third of iOS samples and one in six Android samples are Poor or Bad (below −15 dB). iOS reports a few extreme values down to −40 dB.

iOS (RantCell iOS app)



Android (Pixel 6a)



Excellent ≥ 20 dB · Good 13 to 20 dB · Fair 5 to 13 dB · Poor 0 to 5 dB · Bad < 0 dB

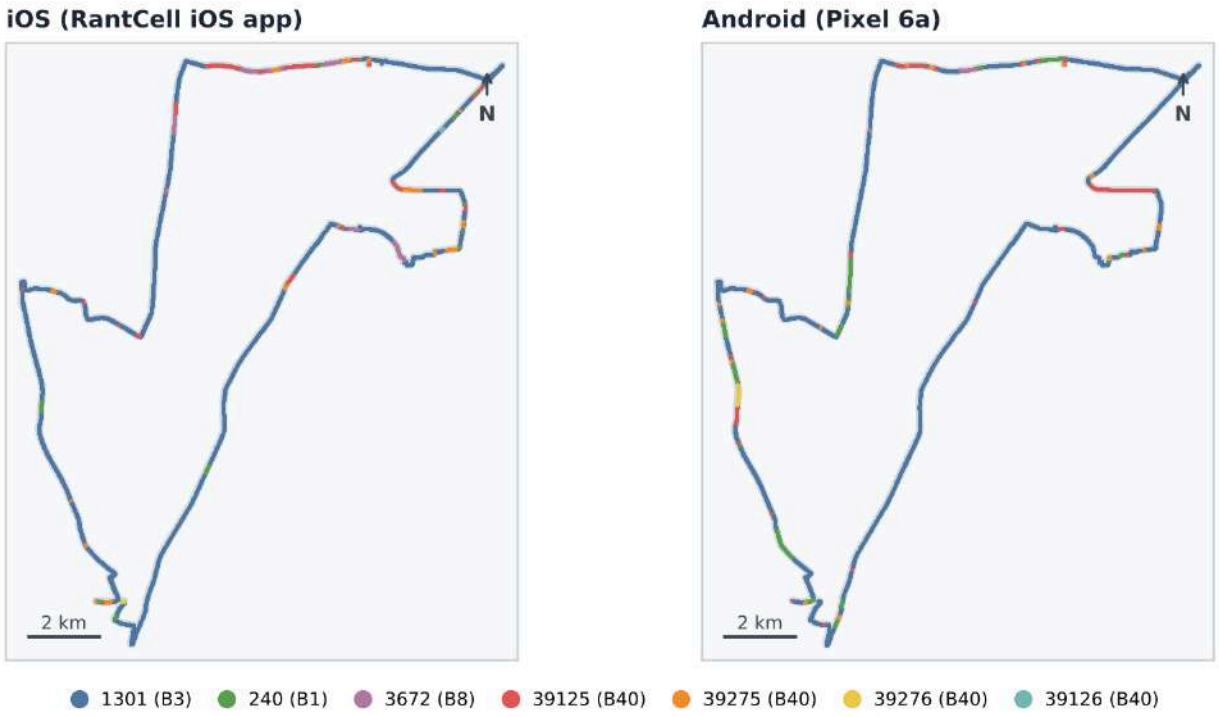
Each dot is one sample, coloured by its SNR quality band and drawn at its recorded GPS position. Weaker samples are drawn on top.

Quality	Range	iOS	Android
Excellent	≥ 20 dB	1.8%	1.8%
Good	13 to 20 dB	7.4%	7.8%
Fair	5 to 13 dB	33.5%	29.4%
Poor	0 to 5 dB	29.2%	24.4%
Bad	< 0 dB	28.2%	36.6%

SNR (dB)	iOS	Android
Mean	3.8	2.1
Median	3.6	2.0
10th percentile	-4.6	-8.0
90th percentile	12.6	12.0
Minimum	-20.0	-19.0
Maximum	26.0	29.0
Samples	7,310	6,672



SNR is the ratio of the useful signal to noise and interference, and it drives throughput. Median: iOS **3.6 dB**, Android **2.0 dB**. Fewer than 10% of samples are Good or Excellent (13 dB or above). Low SNR alongside reasonable RSRP is the main optimisation opportunity on this route.

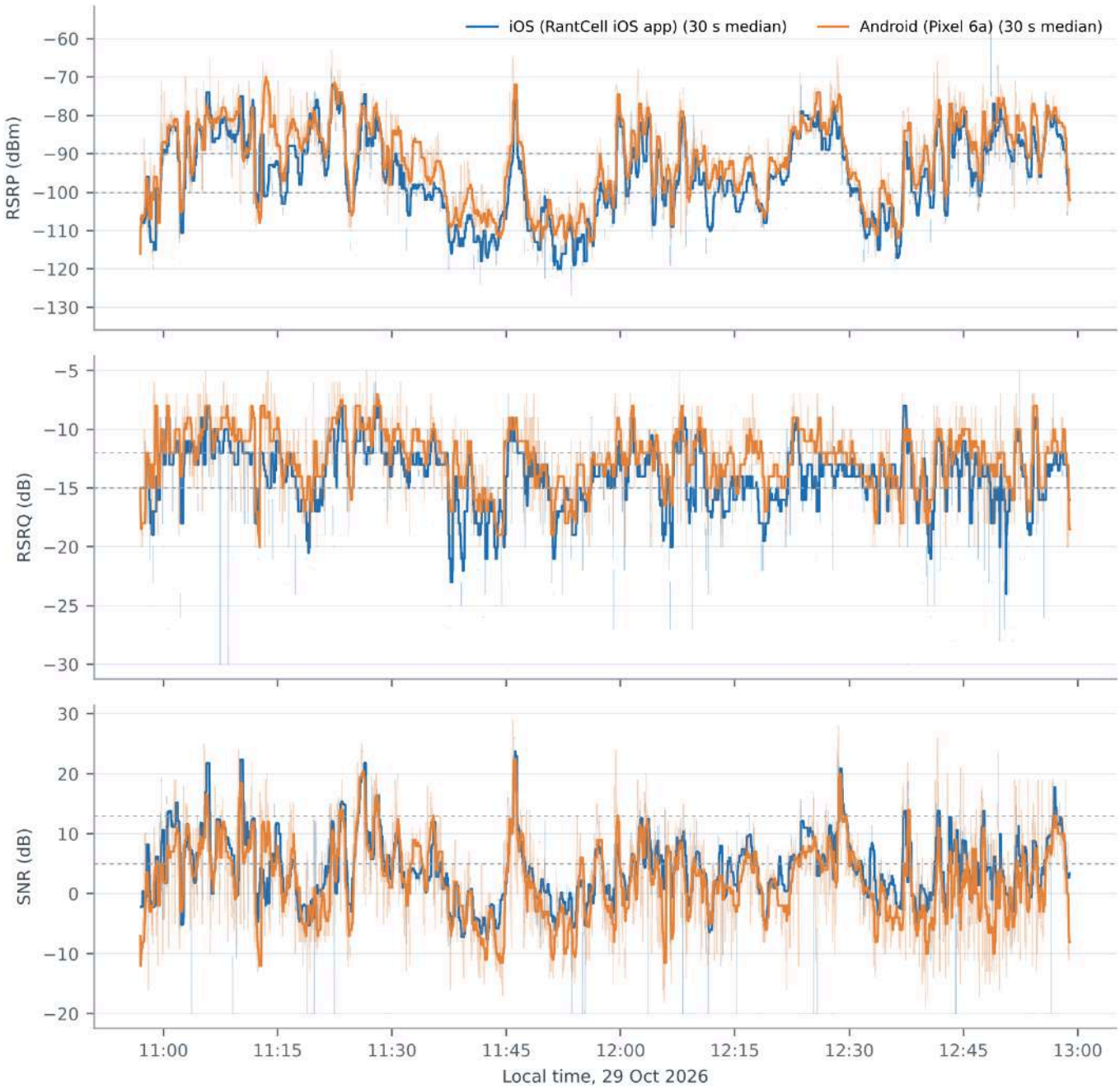


Serving EARFCN for each sample. Band 3 (EARFCN 1301, blue) dominates; other layers appear at the cell edge.

Performance by EARFCN

EARFCN	Band	iOS					Android				
		Samples	Share	RSRP	RSRQ	SNR	Samples	Share	RSRP	RSRQ	SNR
1301	B3	6,183	84.6%	-94.0	-14.2	4.2	5,673	84.4%	-90.8	-12.5	2.1
240	B1	261	3.6%	-96.5	-14.7	4.9	561	8.3%	-95.1	-12.4	3.0
39125	B40	333	4.6%	-110.5	-15.5	-0.3	243	3.6%	-99.9	-12.7	-0.7
3672	B8	323	4.4%	-106.9	-15.2	0.0	44	0.7%	-104.0	-16.5	-7.2
39275	B40	178	2.4%	-101.7	-16.1	-0.3	144	2.1%	-102.0	-12.5	2.0
39276	B40	25	0.3%	-102.4	-16.5	3.5	60	0.9%	-73.9	-8.7	11.0
39126	B40	7	0.1%	-107.9	-18.6	-4.0	not served				

RSRP in dBm; RSRQ and SNR in dB; all values are means. Share = proportion of that phone's samples.



Faint lines show each second; bold lines show a 30-second rolling median. Dashed lines mark the Good/Fair and Fair/Poor thresholds.

The 12 EARFCN/PCI combinations with the most samples on each phone. RSRP in dBm; RSRQ and SNR in dB; all values are means.

iOS

PCI	EARFCN	Band	Samples	Share	RSRP	RSRQ	SNR
200	1301	B3	520	7.1%	-99.8	-15.9	2.0
86	1301	B3	325	4.4%	-100.7	-13.1	3.1
269	1301	B3	271	3.7%	-97.8	-13.7	7.5
221	1301	B3	248	3.4%	-105.9	-16.8	-1.4
215	1301	B3	161	2.2%	-108.6	-14.6	0.3
225	1301	B3	153	2.1%	-86.4	-13.7	7.9
14	1301	B3	144	2.0%	-96.0	-12.6	3.6
497	1301	B3	141	1.9%	-105.4	-14.4	3.3
13	1301	B3	132	1.8%	-88.6	-10.7	9.4
262	1301	B3	129	1.8%	-103.8	-15.6	-0.1
198	1301	B3	123	1.7%	-80.5	-14.2	8.1
341	1301	B3	122	1.7%	-87.0	-13.8	7.6

Android

PCI	EARFCN	Band	Samples	Share	RSRP	RSRQ	SNR
200	1301	B3	454	6.8%	-94.8	-13.7	0.1
269	1301	B3	265	3.9%	-98.9	-13.4	3.4
225	1301	B3	202	3.0%	-84.6	-12.1	6.5
86	1301	B3	195	2.9%	-90.8	-11.3	4.9
14	1301	B3	151	2.2%	-89.5	-11.2	4.5
221	1301	B3	148	2.2%	-97.7	-13.0	-0.4
215	1301	B3	136	2.0%	-104.6	-14.7	-2.9
198	1301	B3	126	1.9%	-80.6	-11.0	7.3
497	1301	B3	119	1.8%	-99.0	-13.9	2.9
13	1301	B3	106	1.6%	-84.4	-9.1	9.0
262	1301	B3	106	1.6%	-104.3	-15.8	-5.7
335	1301	B3	100	1.5%	-80.5	-9.6	6.3

Method and notes

- **Quality bands.** RSRP: Excellent ≥ −80, Good −90 to −80, Fair −100 to −90, Poor −110 to −100, Bad < −110 dBm. RSRQ: −10 / −12 / −15 / −20 dB. SNR: 20 / 13 / 5 / 0 dB.
- **Positions.** Maps use each phone's recorded GPS position. Distance is the length of the iOS GPS track.
- **Technology.** Only LTE was measured; no 5G NR samples were recorded on either phone.
- **Device comparison.** The iOS vs Android offset is the median RSRP difference between samples taken within 2 seconds of each other on the same EARFCN and PCI (4,787 matched samples).