| WEBPAGE LOADING TIME IN TECHNOLOGY AUTO DETECT MODE IN CITIES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| City | Webpage Loading Time [seconds] | | | | Compliant (Yes/No) | | | |
| | Jazz | Telenor | Ufone | ZonG | Jazz | Telenor | Ufone | ZonG |
| SUKKUR | 3.99 | 5.37 | 4.82 | 5.80 | Yes | No | Yes | No |
| BAHAWALPUR | 5.28 | 6.94 | 6.99 | 6.54 | No | No | No | No |
| CHARSADDA | 7.85 | 8.02 | 8.31 | 7.90 | No | No | No | No |
| GWADAR | 8.62 | 6.91 | 7.30 | 7.37 | No | No | No | No |
| QUETTA | 4.29 | 7.15 | 6.26 | 6.31 | Yes | No | No | No |
| ISLAMABAD | 5.11 | 6.73 | 6.29 | 5.07 | No | No | No | No |
| KOT RADHA KISHAN | 4.86 | 7.69 | 5.23 | 4.20 | Yes | No | No | Yes |
| SHEIKHUPURA | 5.28 | 6.13 | 5.62 | 4.45 | No | No | No | Yes |
| HANGU | 7.48 | 8.15 | 8.48 | 8.26 | No | No | No | No |
| KUCHLAK | 4.49 | 6.52 | 6.41 | 6.31 | Yes | No | No | No |
| ABBOTTABAD | 6.70 | 7.83 | 7.69 | 8.27 | No | No | No | No |
| LOWER DIR | 7.04 | 8.36 | 6.98 | 6.69 | No | No | No | No |
| MANSEHRA | 6.28 | 8.67 | 7.04 | 6.44 | No | No | No | No |
| MATIARI | 4.48 | 8.64 | 6.68 | 5.37 | Yes | No | No | No |
| MACH | 4.20 | 6.65 | 6.22 | 5.75 | Yes | No | No | No |
| PASROOR | 5.97 | 8.57 | 6.37 | 4.35 | No | No | No | Yes |
| PISHIN | 4.51 | 6.54 | 7.47 | 6.58 | Yes | No | No | No |
| SARGODHA | 5.22 | 7.09 | 6.79 | 6.30 | No | No | No | No |
| UMERKOT | 4.04 | 6.50 | 6.45 | 5.29 | Yes | No | No | No |

Table 4.10: Webpage Loading Time < 5 Seconds

4.5. **LATENCY.** As per Cellular Mobile Network Quality of Service (QoS) Regulations 2021, licensees are required to meet <u>threshold of 75 milliseconds of 4G/LTE Technology & 150 milliseconds of 3G Technology of Latency.</u> The results of QoS KPI Latency is shown in (i). **Table 4.11: Latency in Technology Auto Detect Mode < 75 milliseconds**, (ii). **Table 4.12: Latency in 4G/LTE Technology Locked Mode < 75 milliseconds** & (iii) **Table 4.13: Latency in 3G Technology Locked Mode < 150 milliseconds.**

| LATENCY IN TECHNOLOGY AUTO DETECT MODE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| City | Latency [milliseconds] | | | | Compliant (Yes/No) | | | |
| | Jazz | Telenor | Ufone | ZonG | Jazz | Telenor | Ufone | ZonG |
| SUKKUR | 46 | 39 | 33 | 57 | Yes | Yes | Yes | Yes |
| BAHAWALPUR | 82 | 69 | 79 | 55 | No | Yes | No | Yes |
| CHARSADDA | 410 | 213 | 286 | 144 | No | No | No | No |
| GWADAR | 208 | 80 | 53 | 98 | No | No | Yes | No |
| QUETTA | 58 | 89 | 51 | 67 | Yes | No | Yes | Yes |
| ISLAMABAD | 73 | 71 | 65 | 94 | Yes | Yes | Yes | No |
| KOT RADHA KISHAN | 89 | 55 | 58 | 43 | No | Yes | Yes | Yes |
| SHEIKHUPURA | 77 | 52 | 163 | 49 | No | Yes | No | Yes |
| HANGU | 422 | 324 | 338 | 154 | No | No | No | No |
| KUCHLAK | 58 | 85 | 55 | 61 | Yes | No | Yes | Yes |
| ABBOTTABAD | 82 | 55 | 83 | 115 | No | Yes | No | No |
| LOWER DIR | 114 | 71 | 76 | 80 | No | Yes | No | No |
| MANSEHRA | 71 | 69 | 68 | 63 | Yes | Yes | Yes | Yes |
| MATIARI | 50 | 39 | 63 | 33 | Yes | Yes | Yes | Yes |
| MACH | 74 | 57 | 61 | 43 | Yes | Yes | Yes | Yes |
| PASROOR | 125 | 59 | 112 | 57 | No | Yes | No | Yes |
| PISHIN | 46 | 70 | 67 | 72 | Yes | Yes | Yes | Yes |
| SARGODHA | 59 | 66 | 74 | 57 | Yes | Yes | Yes | Yes |
| UMERKOT | 43 | 71 | 33 | 36 | Yes | Yes | Yes | Yes |

Table 4.11: Latency in Technology Auto Detect Mode < 75 milliseconds

| LATENCY IN 4G/LTE TECHNOLOGY LOCKED MODE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| City | Latency [milliseconds] | | | | Compliant (Yes/No) | | | |
| | Jazz | Telenor | Ufone | ZonG | Jazz | Telenor | Ufone | ZonG |
| SUKKUR | 41 | 41 | 32 | 53 | Yes | Yes | Yes | Yes |
| BAHAWALPUR | 81 | 65 | 81 | 64 | No | Yes | No | Yes |
| CHARSADDA | 92 | 68 | 50 | 87 | No | Yes | Yes | No |
| GWADAR | 232 | 68 | 65 | 86 | No | Yes | Yes | No |
| QUETTA | 61 | 78 | 42 | 91 | Yes | No | Yes | No |
| ISLAMABAD | 65 | 73 | 61 | 110 | Yes | Yes | Yes | No |
| KOT RADHA KISHAN | 83 | 50 | 61 | 55 | No | Yes | Yes | Yes |
| SHEIKHUPURA | 93 | 56 | 72 | 58 | No | Yes | Yes | Yes |
| HANGU | 80 | 99 | 88 | 86 | No | No | No | No |
| KUCHLAK | 46 | 60 | 57 | 59 | Yes | Yes | Yes | Yes |
| ABBOTTABAD | 84 | 54 | 68 | 69 | No | Yes | Yes | Yes |
| LOWER DIR | 119 | 83 | 75 | 108 | No | No | Yes | No |
| MANSEHRA | 80 | 74 | 68 | 78 | No | Yes | Yes | No |
| MATIARI | 50 | 38 | 47 | 44 | Yes | Yes | Yes | Yes |
| MACH | 74 | 71 | 65 | 51 | Yes | Yes | Yes | Yes |
| PASROOR | 164 | 60 | 114 | 53 | No | Yes | No | Yes |
| PISHIN | 46 | 64 | 61 | 56 | Yes | Yes | Yes | Yes |
| SARGODHA | 69 | 84 | 80 | 57 | Yes | No | No | Yes |
| UMERKOT | 43 | 68 | 30 | 34 | Yes | Yes | Yes | Yes |

Table 4.12:  Latency in 4G/LTE Technology Locked Mode < 75 milliseconds

| LATENCY IN 3G TECHNOLOGY LOCKED MODE | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| City | Latency [milliseconds] | | | | Compliant (Yes/No) | | | |
| | Jazz | Telenor | Ufone | ZonG | Jazz | Telenor | Ufone | ZonG |
| SUKKUR | 164 | 915 | 420 | 165 | No | No | No | No |
| BAHAWALPUR | 846 | 1067 | 479 | 107 | No | No | No | Yes |
| CHARSADDA | 533 | 203 | 462 | 135 | No | No | No | Yes |
| GWADAR | 833 | 750 | 515 | 312 | No | No | No | No |
| QUETTA | 164 | 914 | 492 | 117 | No | No | No | Yes |
| ISLAMABAD | 488 | 347 | 455 | 170 | No | No | No | No |
| KOT RADHA KISHAN | 504 | 445 | 478 | 63 | No | No | No | Yes |
| SHEIKHUPURA | 529 | 591 | 517 | 77 | No | No | No | Yes |
| HANGU | 537 | 424 | 501 | 130 | No | No | No | Yes |
| KUCHLAK | 131 | 875 | 499 | 107 | Yes | No | No | Yes |
| ABBOTTABAD | 558 | 248 | 538 | 132 | No | No | No | Yes |
| LOWER DIR | 564 | 368 | 419 | 135 | No | No | No | Yes |
| MANSEHRA | 563 | 216 | 464 | 147 | No | No | No | Yes |
| MATIARI | 208 | 823 | 520 | 76 | No | No | No | Yes |
| MACH | N/A | 777 | 490 | 75 | N/A | No | No | Yes |
| PASROOR | 581 | 407 | 518 | 60 | No | No | No | Yes |
| PISHIN | 103 | 1006 | 105 | 100 | Yes | No | Yes | Yes |
| SARGODHA | 424 | 969 | 487 | 74 | No | No | No | Yes |
| UMERKOT | N/A | 729 | 506 | 61 | N/A | No | No | Yes |

Table 4.13:  Latency in 3G Technology Locked Mode < 150 milliseconds

4.6.    The overall Download/Upload speed, Latency, Web Page Loading Time and Resource Block Utilization were measured in different tests. The detailed results can be seen in attached graphs.