

# 4G Measurement Survey Results for Q4 2017

## Tunnel Service Coverage

This indicator measures the service coverage for the 4G cellular mobile network within road and MRT tunnels. Tunnel service coverage measures the percentage of data points collected in a tunnel from a 4G cellular mobile network that achieves a minimum signal strength of at least -109dBm. The tunnel areas surveyed by IMDA include all road and MRT tunnels in Singapore. In order to better reflect end users' experience, IMDA uses mobile phones to collect the signal strength data points.

<b>IMDA's Performance Survey Period - Q4 2017</b>	<b>M1</b>	<b>Singtel Mobile</b>	<b>StarHub Mobile</b>
<b>Road Tunnels</b>			
Central Expressway	100%	99.47%	100%
Fort Canning	100%	100%	100%
Kallang-Paya Lebar Expressway	100%	100%	99.84%
Marina Coastal Expressway	Rollout in progress	Rollout in progress	Rollout in progress
Woodsville	100%	100%	100%
<b>MRT Tunnels</b>			
Changi Airport Line	84.72%	89.12%	80.07%
Circle Line	99.97%	100%	99.83%
Downtown Line	99.77%	99.93%	99.78%
East-West Line	99.53%	99.81%	99.18%
North East Line	99.31%	99.90%	99.56%
North-South Line	99.80%	99.98%	99.64%

**Note 1:** For road and/or MRT tunnels without a published result, it means that the respective mobile operator has not completed its 4G service deployment at the particular road and/or MRT tunnel.

**Note 2:** End users' individual experience may differ due to different models of handset used, handset settings, number of users in the vicinity, etc. The tunnel service coverage results are based on IMDA's coverage performance surveys.

