

# How to check GSM signal strength

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## Determining Factors of Signal Values

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There are many different factors that influence signal strength and quality, including but not limited to:

- Tower load
- Proximity to the cellular tower
- Signal going through a cellular repeater
- Competing signals
- Physical barriers (mountains, buildings, trains, etc.)
- Weather

Therefore, measurements like Signal Strength (RSSI) and Signal Quality (EC/IO) do not incorporate all of the relevant factors to describe the quality of the connection. For example, you may have an excellent RSSI value of -51 dBm, but the Tower Load (the number of mobile users) in your area is very high. In this case, even though you have a great Signal Strength value, you may not achieve maximum mobile data speeds.

## Disclaimers

- Both Signal Strength and Signal Quality must be considered for successful cellular data connection
- Measured or reported values vary by modem, carrier, and network environment
- There is no black/white answer to what constitutes a successful connection
- Although signal strength may appear to be adequate, throughput speeds may vary due to dependencies on cellular tower loads

## 2G (GSM)

2G (GSM) Signal strength is defined by only one value: **RSSI** - Received Signal Strength Indicator; RSSI is a negative value, and the closer to 0, the stronger the signal.

RSSI

RSSI	Signal strength	GSM Signal Quality value:	Description
>= -51 dBm to -65 dBm	Excellent signal	5	Strong signal with maximum data speeds
-66 dBm to -77 dBm	Good signal	4	Strong signal with good data speeds
-78 dBm to -89 dBm	Fairly good signal	3	Fair but useful, fast and reliable data speeds may be attained, but marginal data with drop-outs is possible
< -90 dBm to -101 dBm	Poor signal	2	Performance will drop drastically
-102 dBm to -111 dBm	Bad signal	1	Low Performance
<-112 dBm to -113 dBm	No signal	0	Disconnection

## How to check signal strength in the configurator



Signal Level

To check the 2G signal strength value of your device, go to the **Status** → **GSM info** → **Signal Level** window:

## How to check signal strength over SMS/GPRS

To check signal strength over remote, send `getstatus SMS/GPRS` command.

For more information about `getstatus SMS/GPRS` command, visit: [getstatus](#)



`getstatus` command