

AT Command Emulator – Syntax & Status Commands Report

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1. Overview

This report covers testing and analyzing syntax and status commands using the AT Emulator. The focus is on:

- Signal Quality (AT+CSQ)
- SIM Card Status (AT+CPIN?)
- Network Operator Info (AT+COPS?)

Screenshots and numeric results are included for each.

2. Command: AT+CSQ

Purpose: Returns signal quality in the format +CSQ: <rsqi>,<ber>.

Command:

AT+CSQ

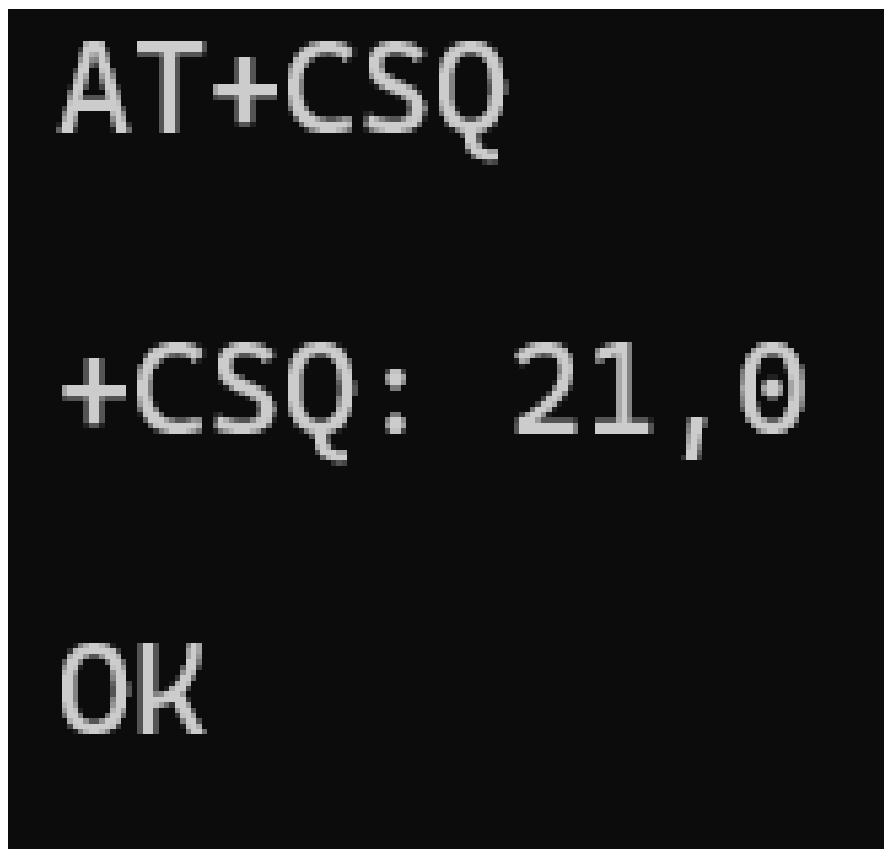
Sample Response:

+CSQ: 21,0
OK

Manual Extraction:

- RSSI = 21 → Signal strength approx. **-69 dBm**
- BER = 0 → Bit Error Rate is 0 (excellent)

Screenshot:



A screenshot of a terminal window with a black background and white text. The text is displayed in a monospaced font and is arranged in three lines: the first line is 'AT+CSQ', the second line is '+CSQ: 21,0', and the third line is 'OK'.

3. Command: AT+CPIN?

Purpose: Checks whether the SIM card is ready.

Command:

AT+CPIN?

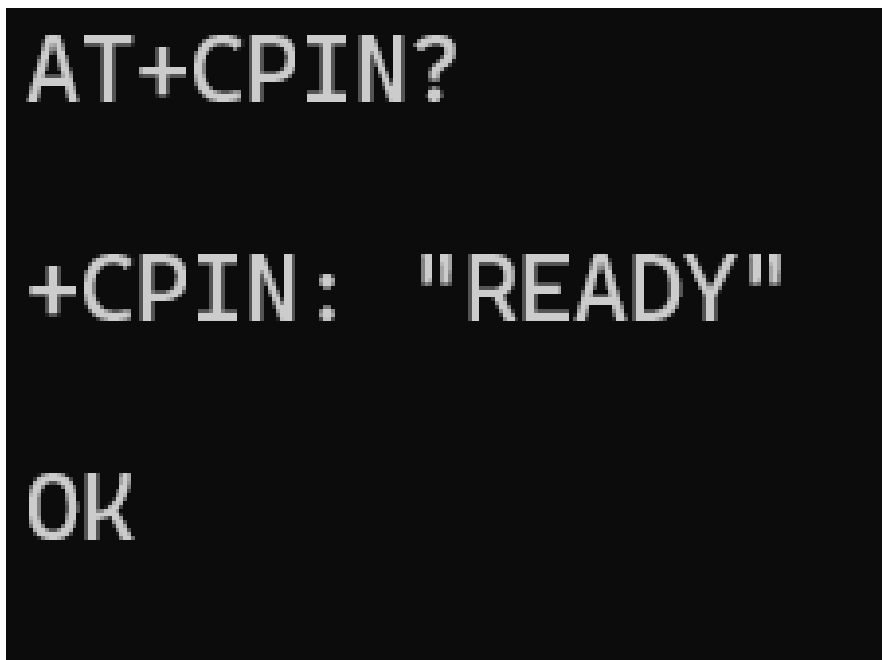
Sample Response:

+CPIN: READY
OK

Manual Extraction:

- SIM Status: **READY** → SIM is inserted and functional.

Screenshot:



```
AT+CPIN?  
  
+CPIN: "READY"  
  
OK
```

4. Command: AT+COPS?

Purpose: Returns the current network operator details.

Command:

AT+COPS?

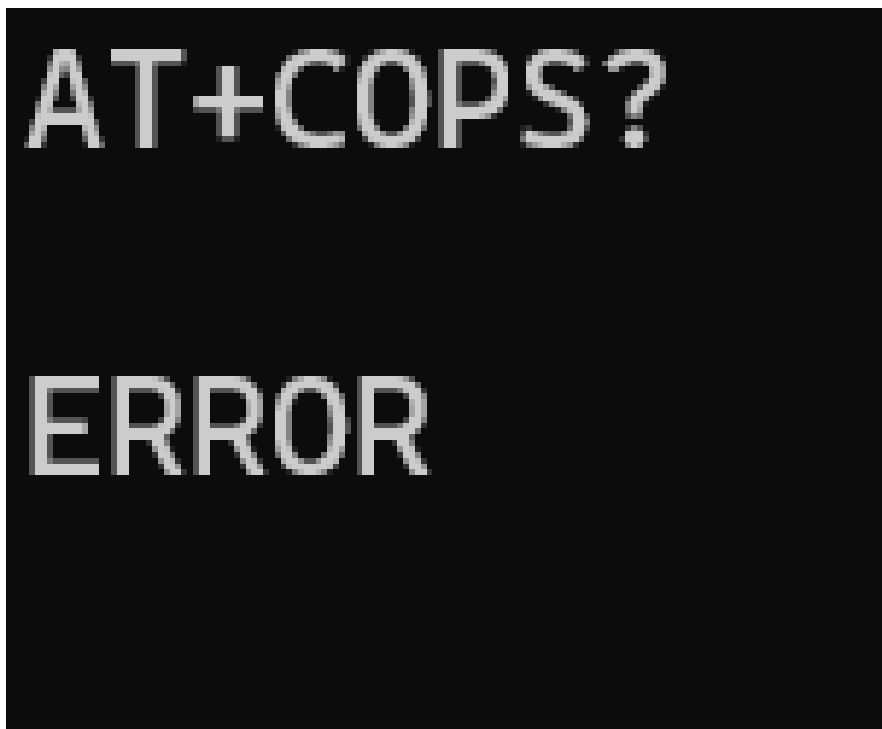
Sample Response:

```
+COPS: 0,0,"Airtel",7
OK
```

Manual Extraction:

- Mode = 0 (automatic selection)
- Format = 0 (long alphanumeric)
- Operator = "Airtel"
- Access Tech = 7 → LTE

Screenshot:



5. Conclusion

All syntax/status commands were successfully tested:

- AT+CSQ showed strong signal (RSSI = 21)
- AT+CPIN? confirmed SIM readiness
- AT+COPS? identified the current LTE network operator

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