

NTP-8500/8600 Series  
Power Supply  
SCPI command list

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# SCPI Syntax

SCPI(Standard Commands for Programmable Instruments) is standard programmable commands to use in controlling measurement devices. The standard commands is based on ASCII command language.

Basic Syntax explanation :

- Command syntax**                      Each command in SCPI is defined in Upper case and lower case part. The upper case part is mandate and lower case part is optional.  
e.g. "VOLTage?" is same as "VOLT?"  
SCPI command is not case sensitive. It means "VOLTage?" is same as "VOLTAGE?" and "voltage?" during communication.
- Square bracket [ ]**                      - The command in bracket is optional.  
e.g. "VOLTage[:LEVel]?" can be replaced by "VOLTage?"  
The [:LEVel] is skipped.
- Angle bracket < >**                      - Indicate this is parameter for command. For example "VOLTage <value>", it means the VOLTage need to pass a value.  
e.g. VOLTage 5V

**e.g.** Command "VOLTage[:LEVel][:IMMediate][:AMPLitude]?" can be write as "VOLT?"

Remark: It need "\n" at the end of each command for power supply. e.g. "VOLT?\n"

# General Command list

## 1. Set and read output Voltage

**VOLTage[:LEVel][:IMMediate][:AMPLitude] <value>**

Description: Set output voltage, (Unit: V or mV)

Return Value: none

Example: "VOLT 1.00V"

means set output voltage to 1.00V

**VOLTage[:LEVel][:IMMediate][:AMPLitude]?**

Description: Read output voltage setting

Return Value: set value of out voltage in Volt.

Example: "VOLT?"

return "1.00V"

means the output voltage is set to 1.00V

## 2. Set and read output Current

**CURRent[:LEVel][:IMMediate][:AMPLitude] <value>**

Description: Set output current limit. (Unit: A or mA)

Return Value: none

Example: "CURR 1.000A"

means set output current limit to 1.000A

**CURRent[:LEVel][:IMMediate][:AMPLitude]?**

Description: Read output current limit setting

Return Value: set value of out current limit in Amp.

Example: "CURR?"

return 1.000A"

means the output current limit is set to 1.000A

## 3. Read output voltage range

**VOLTage:RANGe?**

Description: Read the output voltage range.

Return Value: value of output voltage range.

Example: "VOLT:RANG?"

return "0.80V,21.00V"

means the output voltage range is 0.80V-21.00V.

## 4. Read output current range

### **CURRent:RANGe?**

Description: Read the output current range.

Return Value: value of output current range.

Example: "CURR:RANG?"

return "0.100A,5.200A"

means the output current range is 0.100A-5.200A

## 5. Read actual output voltage

### **MEASure[:SCALar]:VOLTage[:DC]?**

Description: Read the actual output voltage.

Return Value: actual value of output voltage in Volt.

Example: "MEAS:VOLT?"

return "5.00V"

means the actual output voltage is 5.00V

## 6. Read actual output current

### **MEASure[:SCALar]:CURRent[:DC]?**

Description: Read the actual output current.

Return Value: actual value of output current in Amp.

Example: "MEAS:CURR?"

return "1.000A"

means the actual output current is 1.000A

## 7. Read actual output power

### **MEASure[:SCALar]:POWER[:DC]?**

Description: Read the actual output power

Return Value: actual value of output power in Watt

Example: "MEAS:POW?"

return "20.00W"

means the actual output power is 20.00W

## 8. Set and read output ON/OFF status

### **OUTPut[:STATe] <bool>**

Description: Set output ON/OFF. <bool> = 0|1

Return Value: none

Example: "OUTP 0"

means set output is OFF

### **OUTPut[:STATe]?**

Description: Read output ON/OFF status

Return Value: return 0|1

Example: "OUTP ?"

return "0"

means the output is OFF

## 9. Read SCPI version and Serial number

### **SYSTem:VERSion?**

Description: Read SCPI version

Return Value: "YYYY.V", YYYY is year, V is version.

Example: "SYST:VER?"

return "1999.0"

means year 1999, version 0

### **SYSTem:SN?**

Description: Read Serial Number

Return Value: Serial number of power supply

Example: "SYST:SN?"

return "2015091813"

## 10. Read identity of power supply

### **\*IDN?**

Description: Read identity of power supply

Return Value: "Manufacturer Name, Model, S/N, Software Version"

Example: "\*IDN?"

return "Manson, NTP-8621, XXXXXXXXXXXX, 1.0"

## **11. Set power supply to remote mode**

**SYSTem:REMOte**

Description: Set power supply to remote mode. Power supply indicates locked.

Return Value: none

Example: "SYST:REM"

means set power supply to remote mode. The button and knobs are locked.

## **12. Set power supply to local mode**

**SYSTem:LOCAl**

Description: Set power supply to local mode. Power supply indicates unlocked.

Return Value: none

Example: "SYST:LOC"

means set power supply to local mode. The button and knobs are unlocked.