### TeraFlash OEM: Commands for Host Remote Control

For initialization, open 2 UDP-channels on localhost, the one for reading with local port-number 61235, the one for writing with local port-number 61237. For communication, write a command over the write-channel on localhost, to port-number 61234, and then wait on the read-channel (port-number 61235) for the response. Send commands without end-of-line character. Every command sends a response: ,OK' (partly with parameter) or ,ERROR'. ( means whitespace )

RC-LASER □: □ OFF Switch off laser and emitter voltage RC-LASER □: □ ON Switch on laser and emitter voltage RC-VOLTAGE ☐:☐ OFF Switch off emitter voltage RC-VOLTAGE ☐:☐ON Switch on emitter voltage; works only, if laser is already on RC-RUN □: □ OFF Stop measurement RC-RUN ☐ : ☐ ON Start measurement RC-BEGIN □ %.1f □ start point in ps Set start point in ps RC-RANGE □ %d □ measuring range in ps Set measuring range in ps RC-AVERAGE □ %d □ averaging number Set averaging number RC-TRANSFER ☐: ☐ SLIDING Set data transfer to: continuously RC-TRANSFER ☐: ☐ BLOCK Set data transfer to: not until complete averaging RC-ANALYSIS ☐: ☐ REDUCED Set data analysis to: block by block RC-ANALYSIS ☐ : ☐ FULL ☐ RATE Set data analysis to: full rate RC-TIA □: □ INTERN Set measurement to: internal TIA RC-TIA ☐: ☐ EXTERN Set measurement to: external TIA RC-TIA □: □ SENSITIVITY □ %d □ measuring range in nA Set TIA measuring range (100, 300, 1000 [nA +/-])

Set file path for saving pulse data
RC-WAIT □ : □ ON Switch on WAIT state
RC-WAIT □: □ OFF Switch off WAIT state
RC-AUTO □: □ ON Switch on AUTO-WAIT
RC-AUTO ☐:☐ OFF Switch off AUTO-WAIT
RC-SAVE U W-S Save pulse data with spectrum
RC-SAVE U WO-S Save pulse data without spectrum
RC-REVERSE □ : □ ON Switch on REVERSE mode
RC-REVERSE □: □ OFF Switch off REVERSE mode
RC-REF Set current measurement as Reference
RC-CLR Delete a present Reference, re-normalize frequency spectra
RC-BGR Set current measurement as Background
RC-BCL Delete a present Background

RC-FILEPATH  $\square$  %s  $\square$  path string

# RD-TAC.TIME

RD-AMPLITUDE
Read amplitude [nA]

Read total acquisition time [s]

RD-XAC.TIME
Read relative acquisition time

# RD-LASER

Read laser state

# **RD-VOLTAGE**

Read emitter supply state

# **RD-RUN**

Read acquisition state

# **RD-BEGIN**

Read measuring start point [ps]

#### **RD-RANGE**

Read measuring range [ps]

# **RD-AVERAGE**

Read desired average

#### **RD-TRANSFER**

Read transfer mode

# **RD-ANALYSIS**

Read analysis mode

#### **RD-TIA-MODE**

Read TIA mode

# **RD-TIA-SENSITIVITY**

Read TIA sensitivity

#### **RD-WAIT**

Read WAIT button state

#### **RD-AUTO**

Read auto button state

#### **RD-REVERSE**

Read REVERSE button state