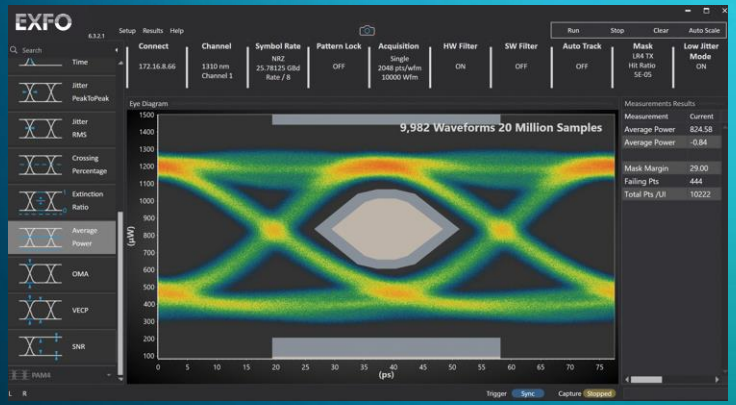
EA-4000
SCPI USER GUIDE

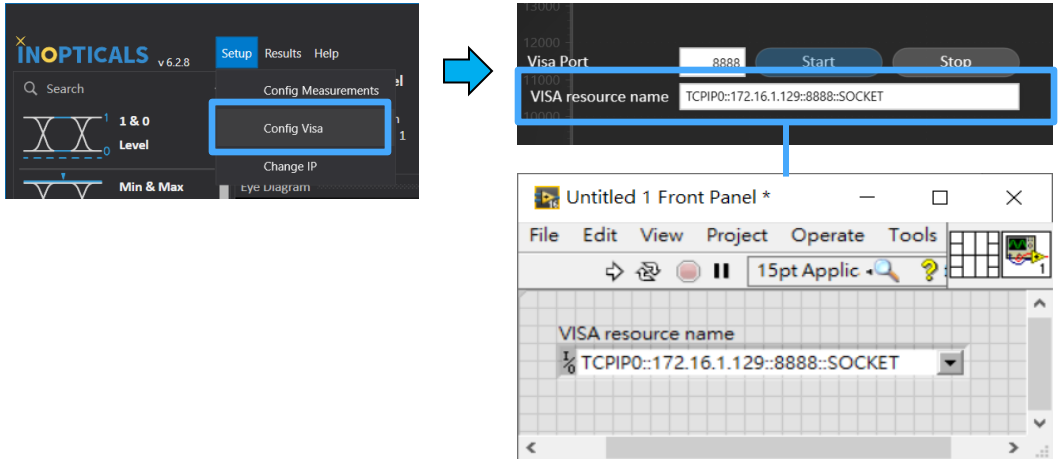


EXFO

How to control EA with VISA resource name

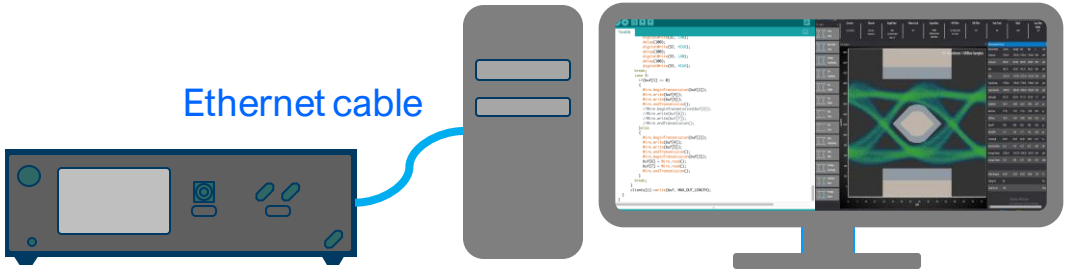
Please fallow this SOP

1. Open the INO-EA GUI which you are using
2. Select from system bar [Setup] ➔ [Config VISA]
3. Copy VISA resource name
4. Paste VISA resource name into your program



Setup for API to control EA7000 on PC

Before SCPI to control EA7000, please open EA7000 GUI and connect the EA7000



SCPI Function Description

Reset

- *RST

It should be used with OPC Query

OPC Query

If you set multiple commands at the same time, you must use OPC

- *OPC
- *OPC?

Identification Query

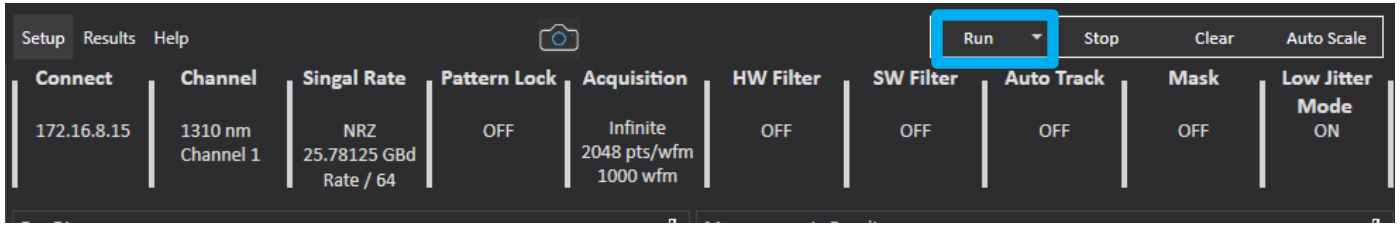
- *IDN?

SCPI Function Description

RunCapture

Start to capture signal

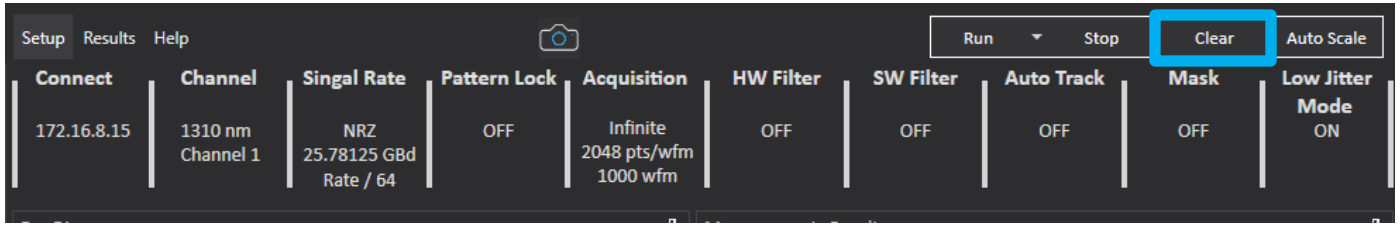
➢ :RUN



ClearData

Clear eye diagram and measurement results

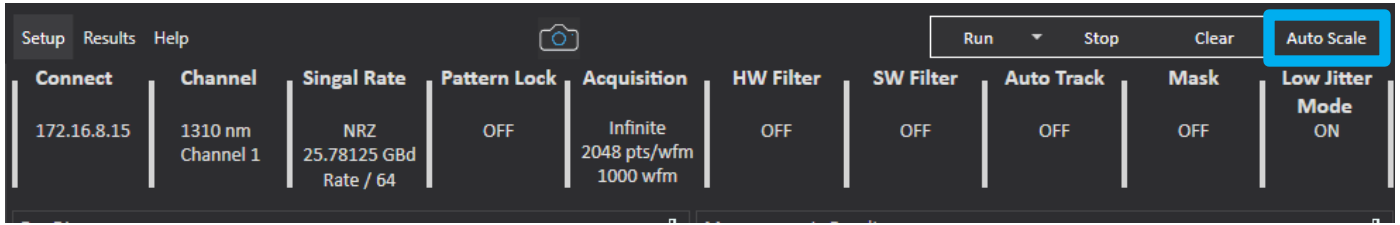
➢ :CDISplay



AutoScale

Scale eye diagram automatically

➢ :AUToscale



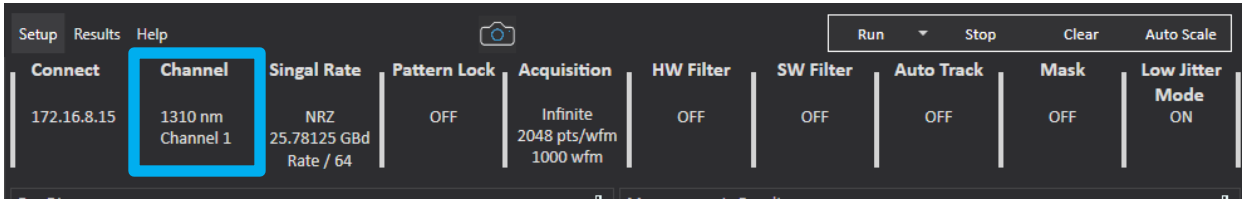
SCPI Function Description

Channel Select

Configure EA7000 channel settings.

➢ :WAVelength:VALue 1310E-9

Supported wavelength: 850 1310 1550 (nm)

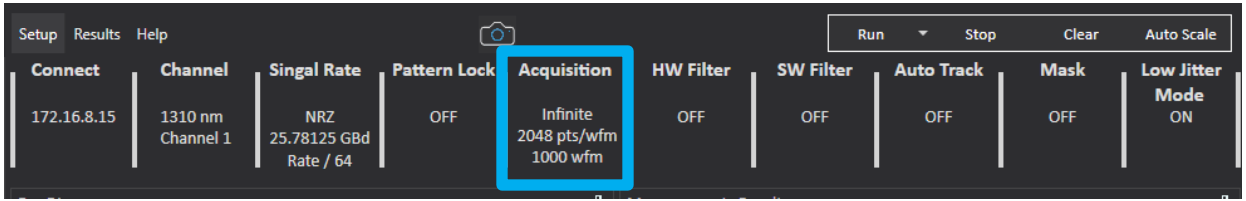


Acquisition Waveforms

Configure EA7000 waveforms settings.

➢ :WAVeforms 1000

Waveform number should ≥ 1000



SCPI Function Description

EnableMeasurements

Enable measurement items

Item	SCPI Command
One Level	:MEASURE:EYE:OLEV
Zero Level	:MEASURE:EYE:ZLEV
Min Level	:MEASURE:EYE:VMIN
Max Level	:MEASURE:EYE:VMAX
Peak to Peak	:MEASURE:EYE:VPP
Eye Amplitude	:MEASURE:EYE:AMPL
Eye Height	:MEASURE:EYE:EHE
Eye Width	:MEASURE:EYE:EWID
Rise Time	:MEASURE:EYE:RIS
Fall Time	:MEASURE:EYE:FALL
Jitter PP	:MEASURE:EYE:JITT:FORMat PP
Jitter RMS	:MEASURE:EYE:JITT:FORMat RMS
Crossing %	:MEASURE:EYE:CROS
Extinction Ratio	:MEASURE:EYE:ERAT
AOP uW	:MEASURE:EYE:APOW
AOP dB	:MEASURE:EYE:APOW
OMA	:MEASURE:EYE:OMAM
VECP	:MEASURE:EYE:VECP
SNR	:MEASURE:EYE:ESN

SCPI Function Description

GetMeasurements

Get the measurement results

Item	SCPI Command
One Level	:MEASURE:EYE:OLEV?
Zero Level	:MEASURE:EYE:ZLEV?
Min Level	:MEASURE:EYE:VMIN?
Max Level	:MEASURE:EYE:VMAX?
Peak to Peak	:MEASURE:EYE:VPP?
Eye Amplitude	:MEASURE:EYE:AMPL?
Eye Height	:MEASURE:EYE:EHE?
Eye Width	:MEASURE:EYE:EWID?
Rise Time	:MEASURE:EYE:RIS?
Fall Time	:MEASURE:EYE:FALL?
Jitter PP	:MEASURE:EYE:JITT:FORMat PP?
Jitter RMS	:MEASURE:EYE:JITT:FORMat RMS?
Crossing %	:MEASURE:EYE:CROS?
Extinction Ratio	:MEASURE:EYE:ERAT?
AOP uW	:MEASURE:EYE:APOW:UNIT uW :MEASURE:EYE:APOW?
AOP dB	:MEASURE:EYE:APOW:UNIT DBM :MEASURE:EYE:APOW?
OMA	:MEASURE:EYE:OMAM?
VECP	:MEASURE:EYE:VECP?
SNR	:MEASURE:EYE:ESN?

SCPI Function Description

SavePic

Capture GUI screen and save it

- :DISK:SIMage:FNAMe "D:\SFPPLUS EYE\12345.JPG"

"D:\SFPPLUS EYE\12345.JPG": Path of saving picture