

# Intensified Charge Coupled Device Horiba Jobin Yvon ICCD

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A. Brablec

katedra fyzikální elektroniky

PřF MU v Brně

Kotlářská 2, 61137 Brno

Česká republika

## Obsah

- Úvod
- Princip ICCD
- cw/pulse regime, vnitřní/vnější spouštění (Triggering) signálu
- PCI Controller Card, LabSpec software
- Sensor (AN\_32), Mode (Image/Spectrum), High Speed, High Gain, Offset
- Trigger (External/Internal), Integrated on chip, Frequency, Delay, Pulse width, Delay Output, MCP Gain
- Parametry ICCD Horiba Jobin Yvon

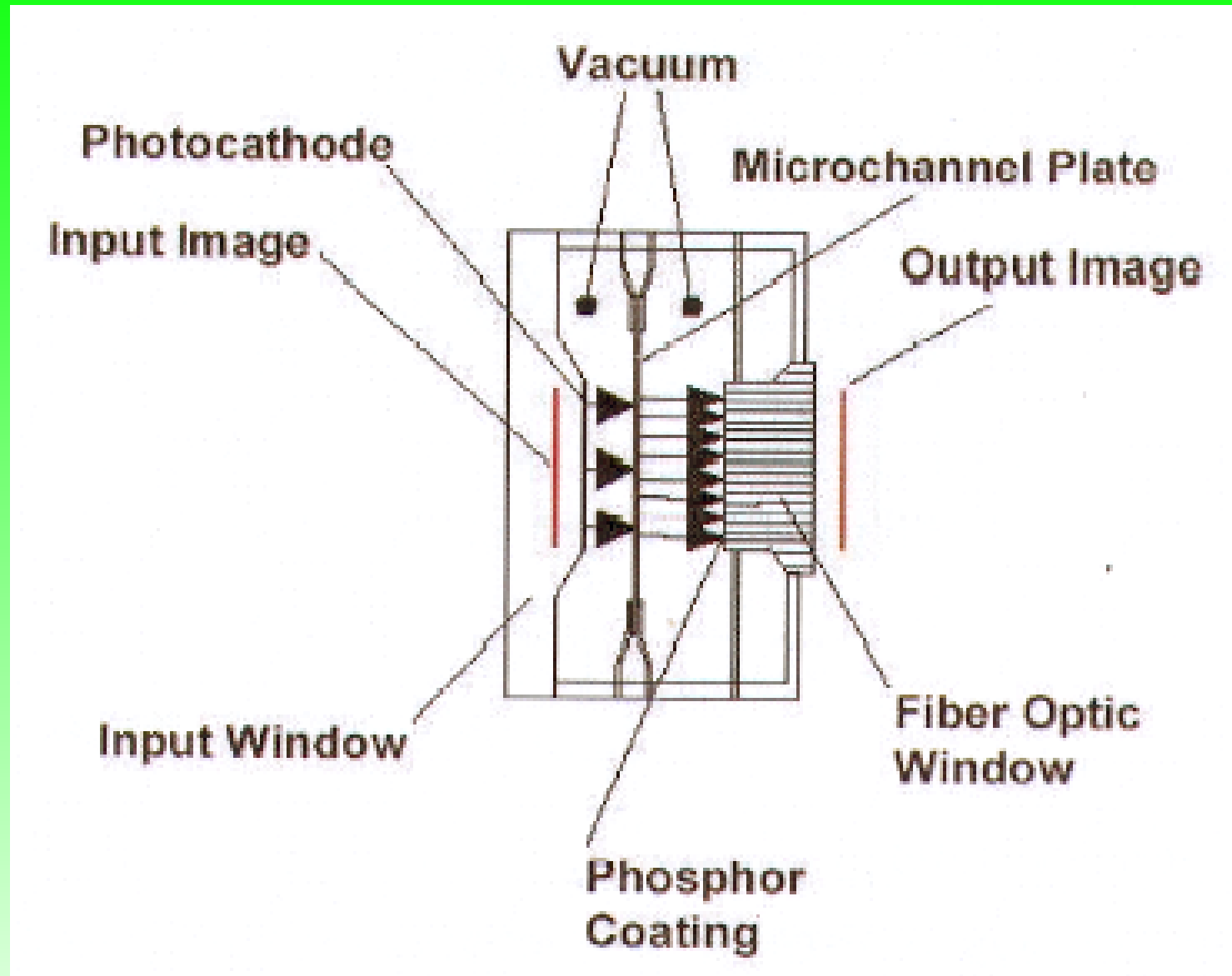
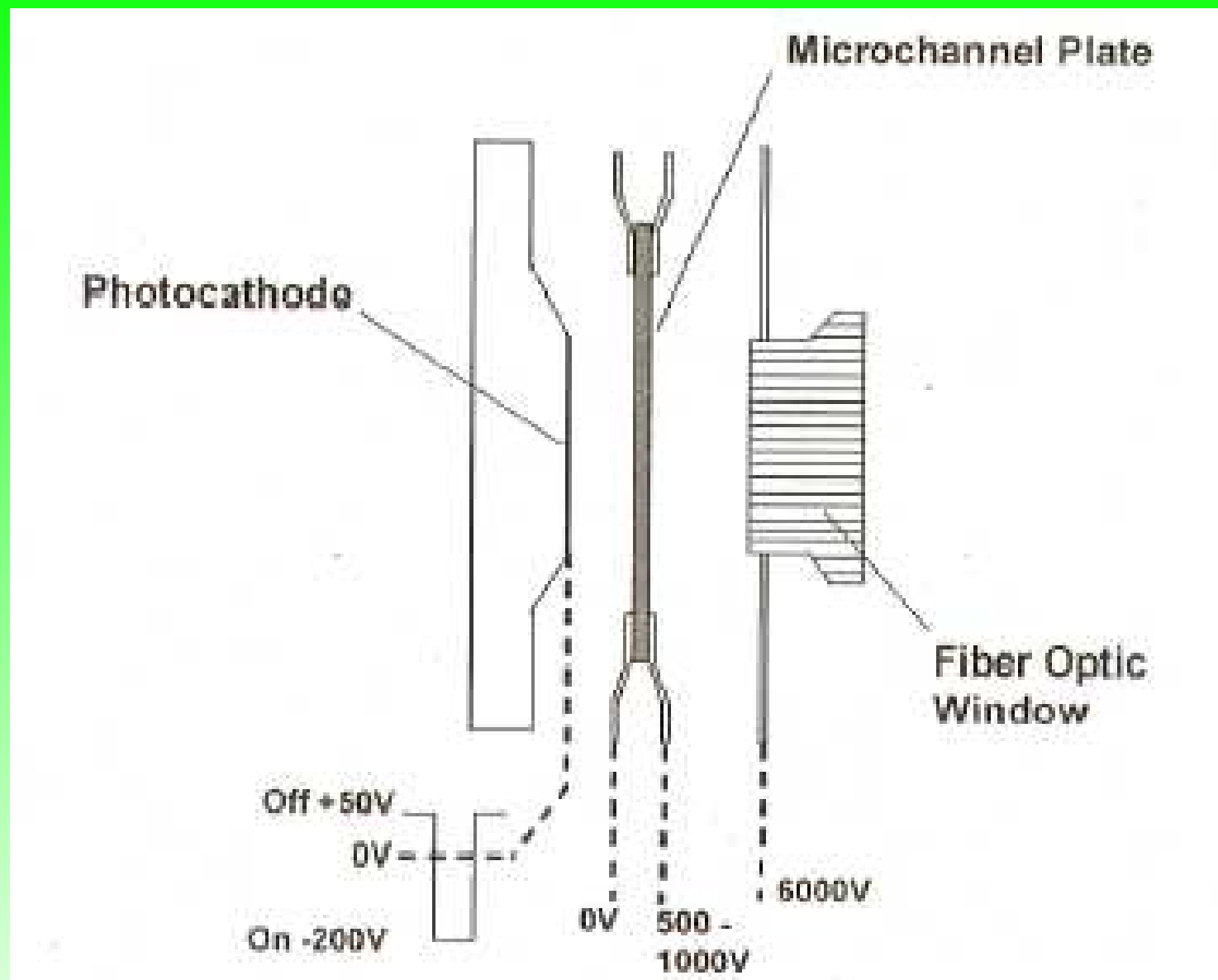
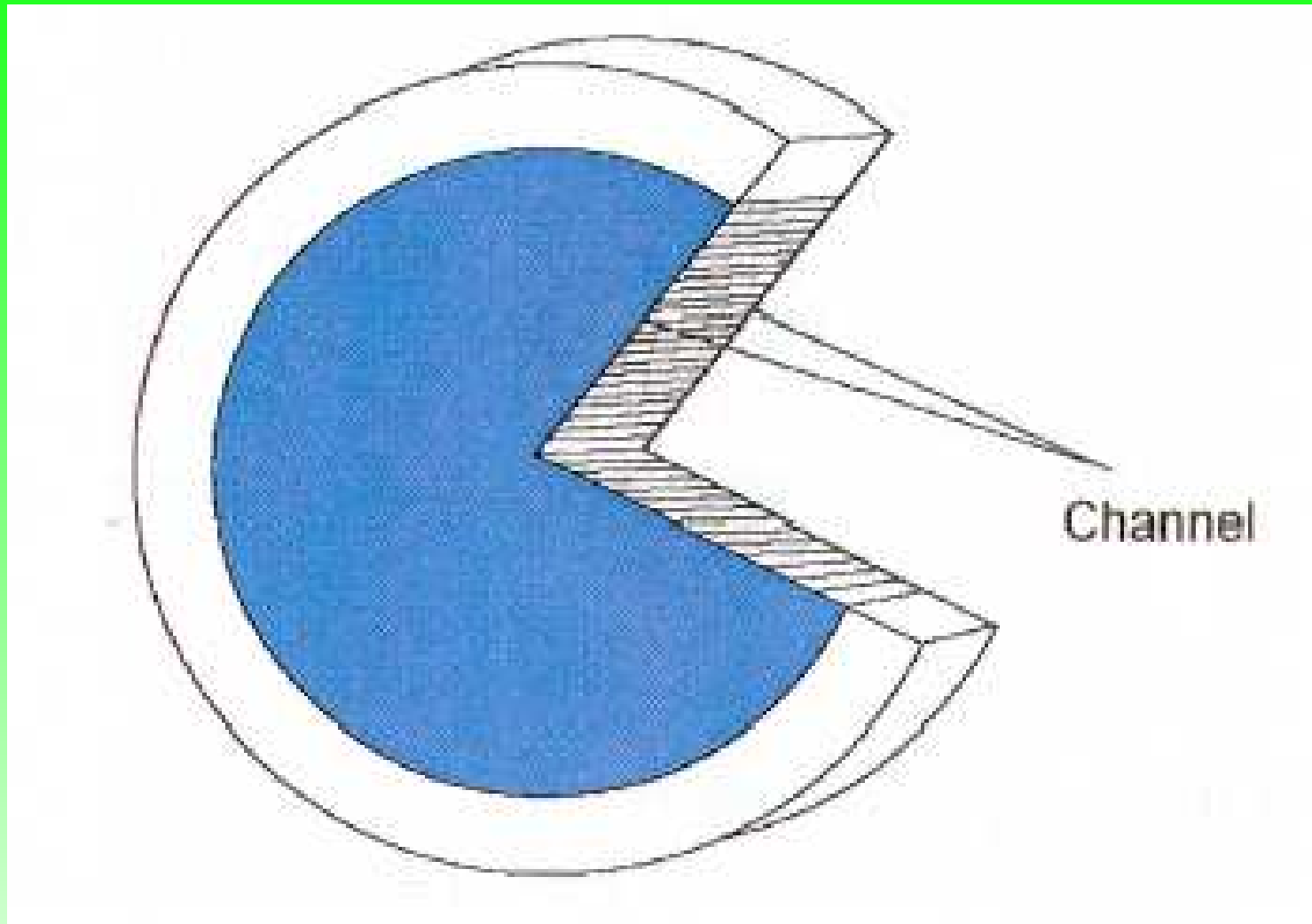


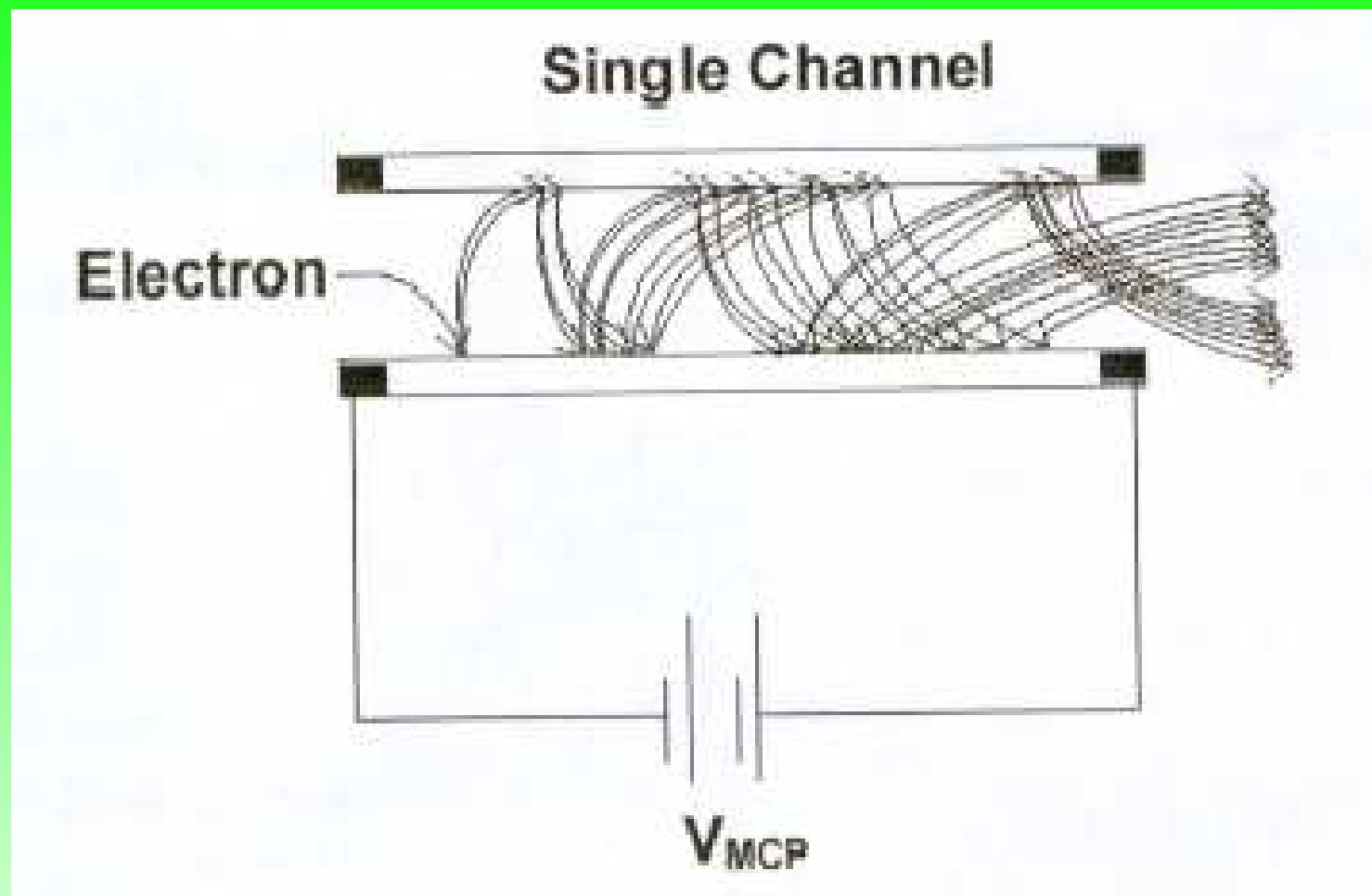
Schéma ICCD.



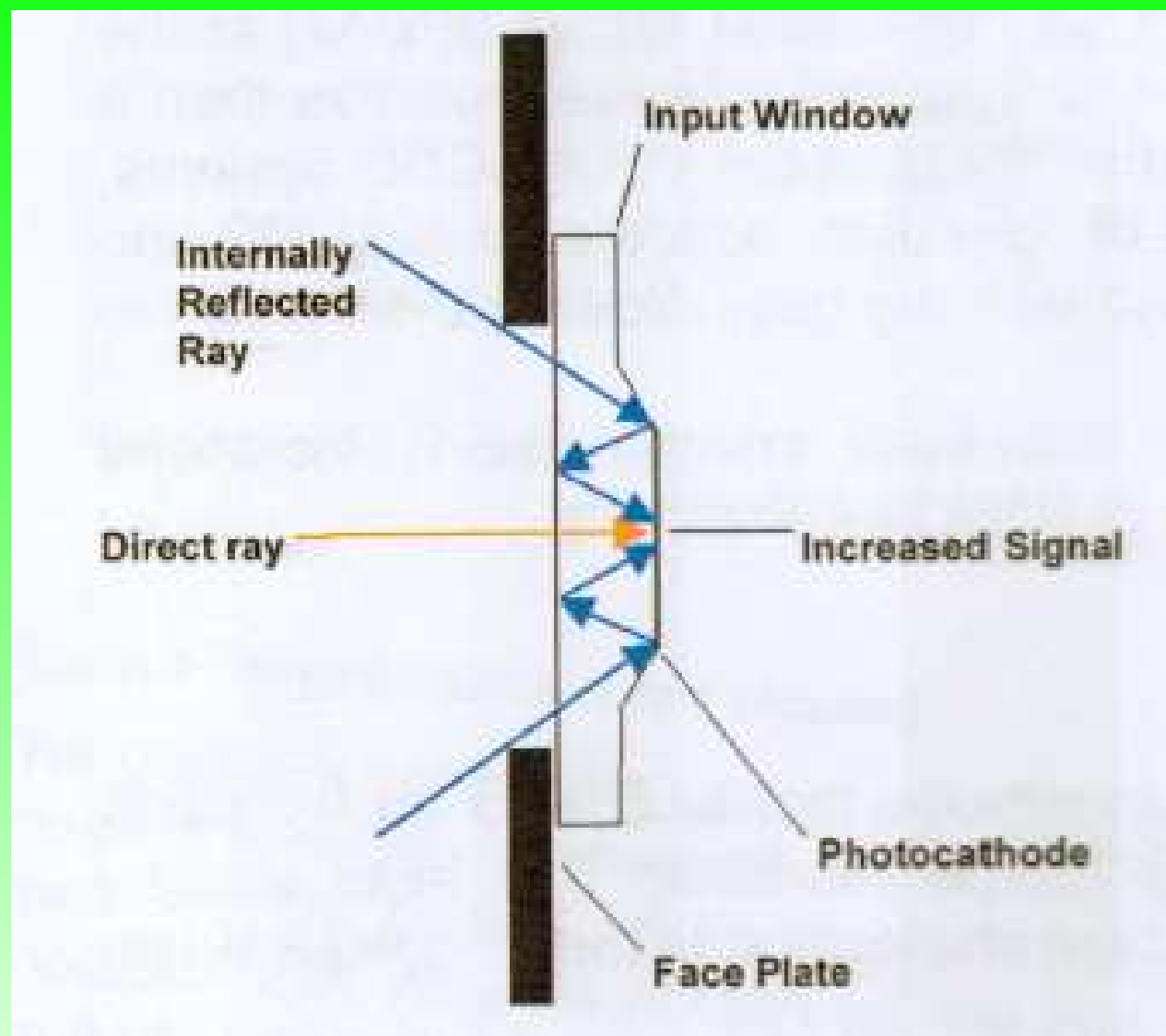
**Pracovní napětí.**



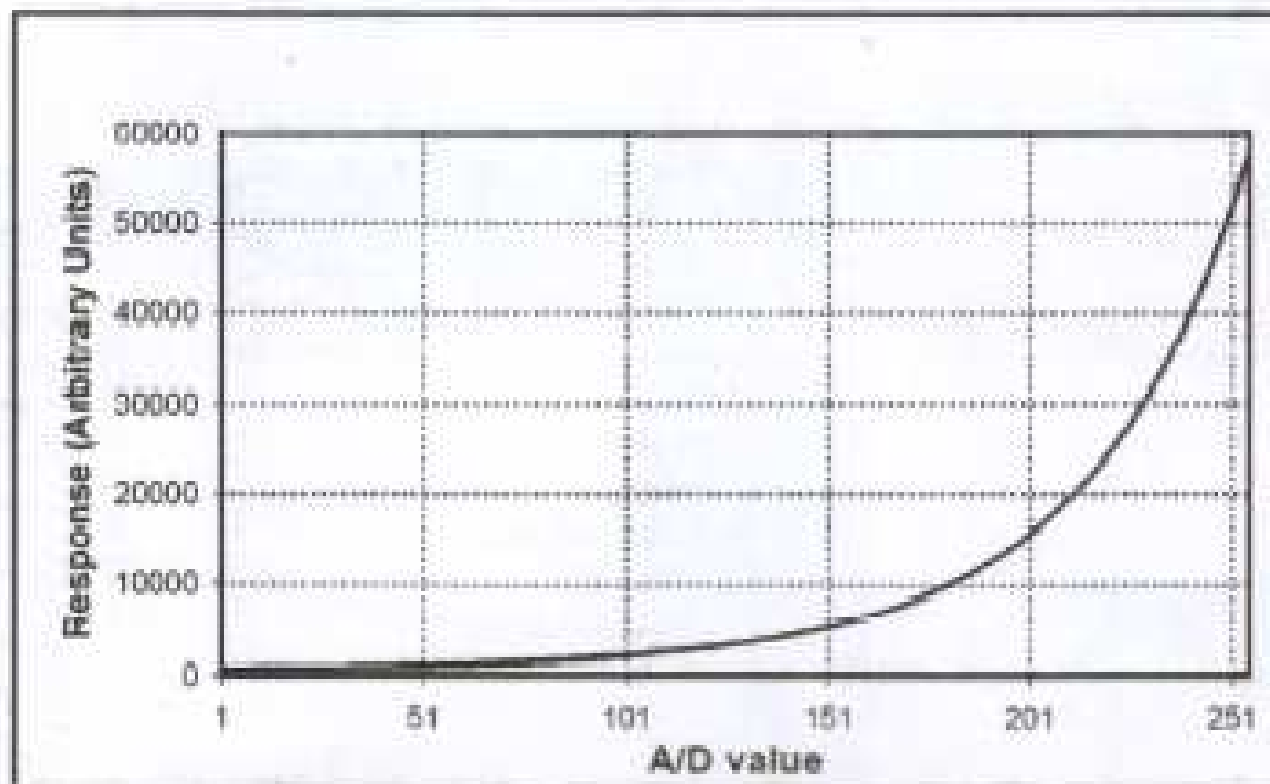
**Microchannel Plate.**



**Detail jedného kanálku.**

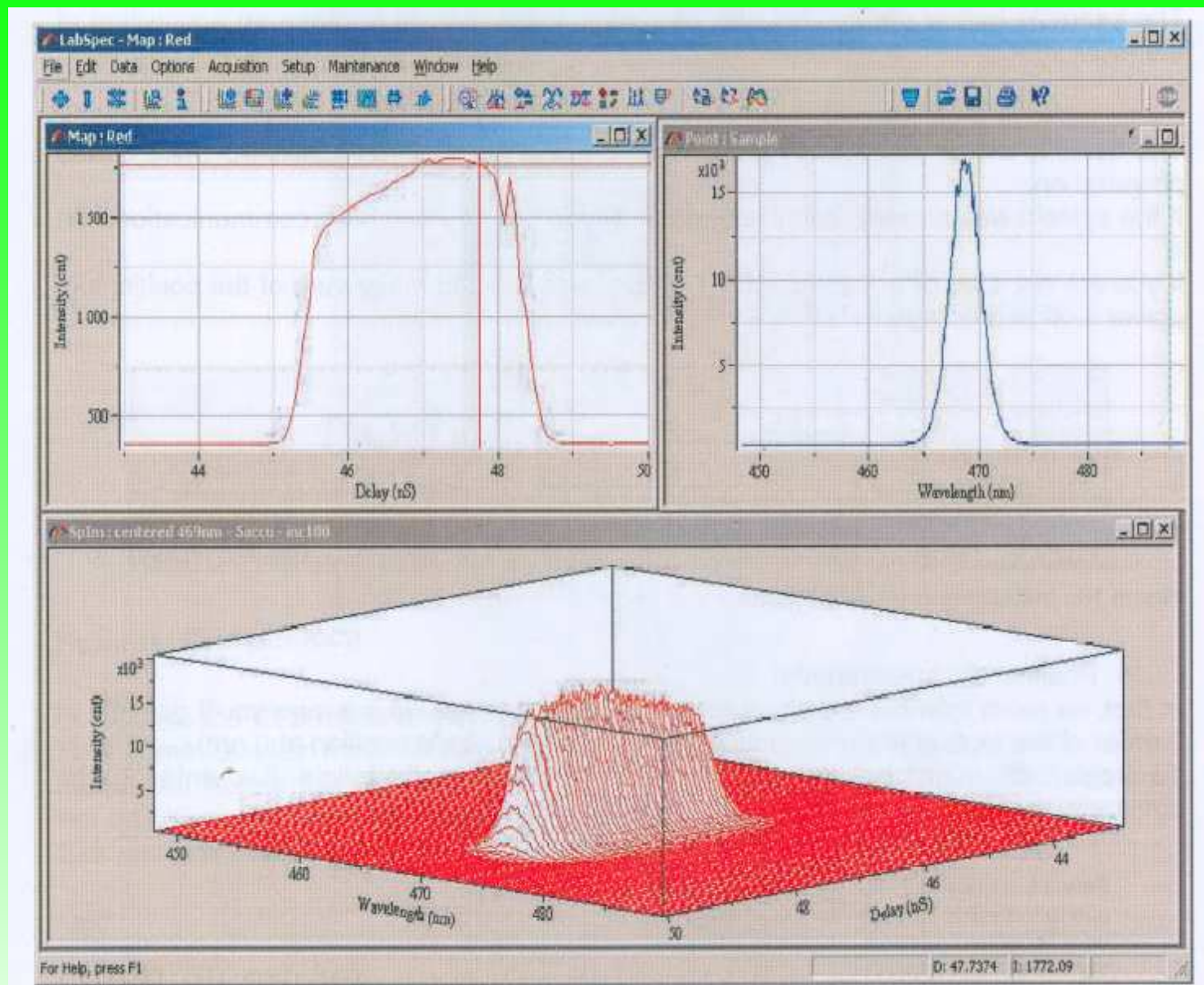


**Průchod světla vstupním okénkem.**

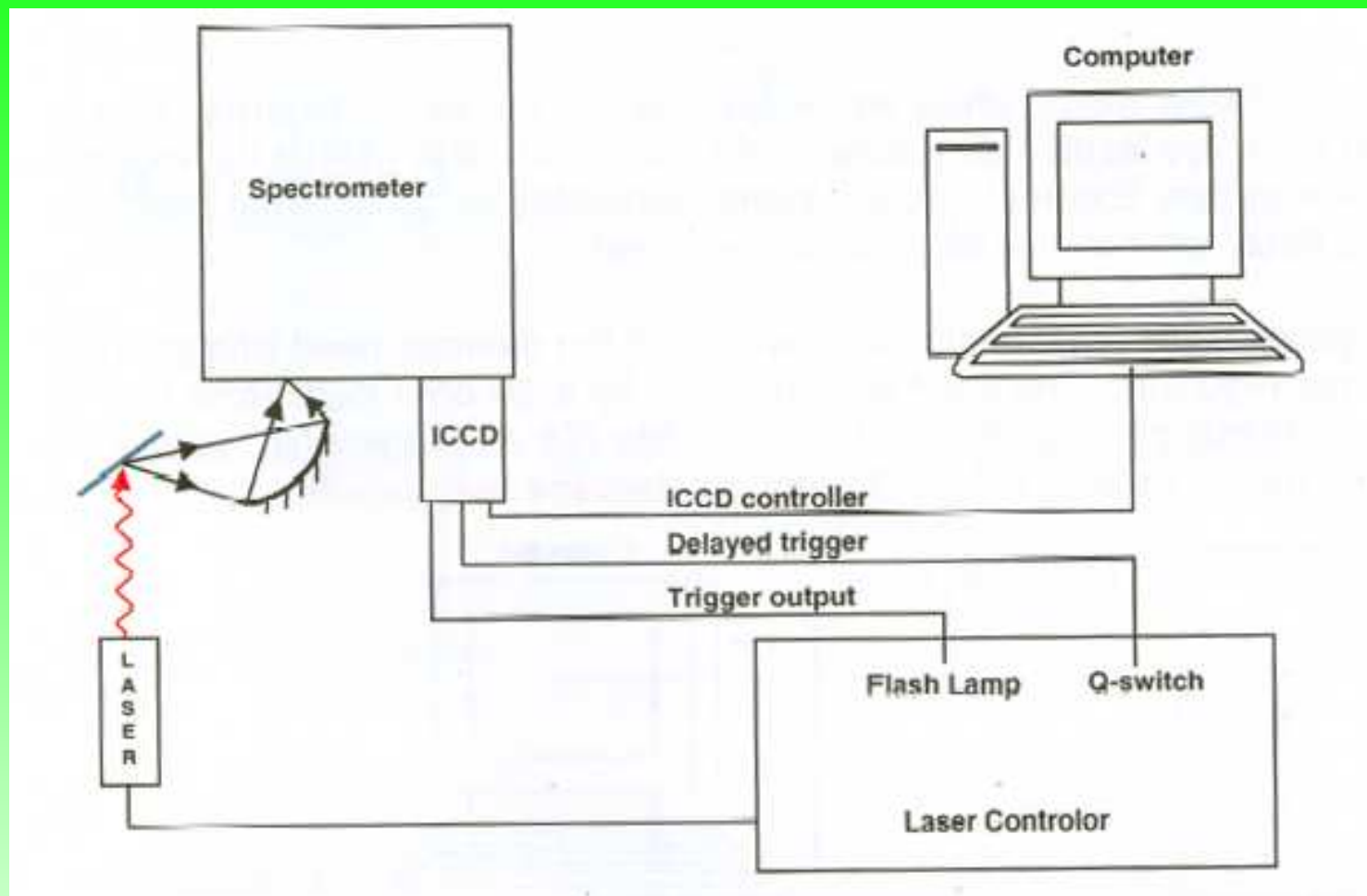


Úroveň signálu v závislosti na zesílení (Gain).

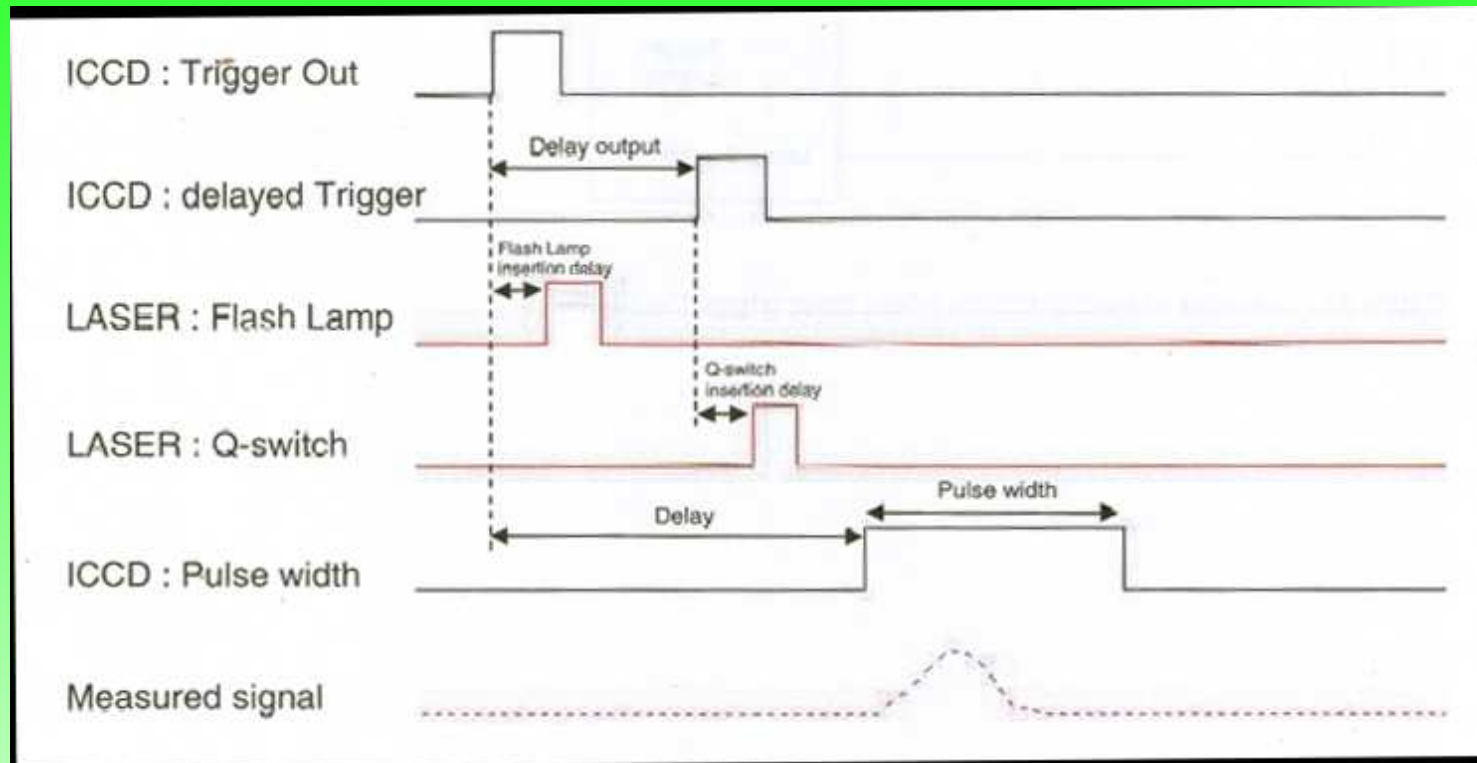




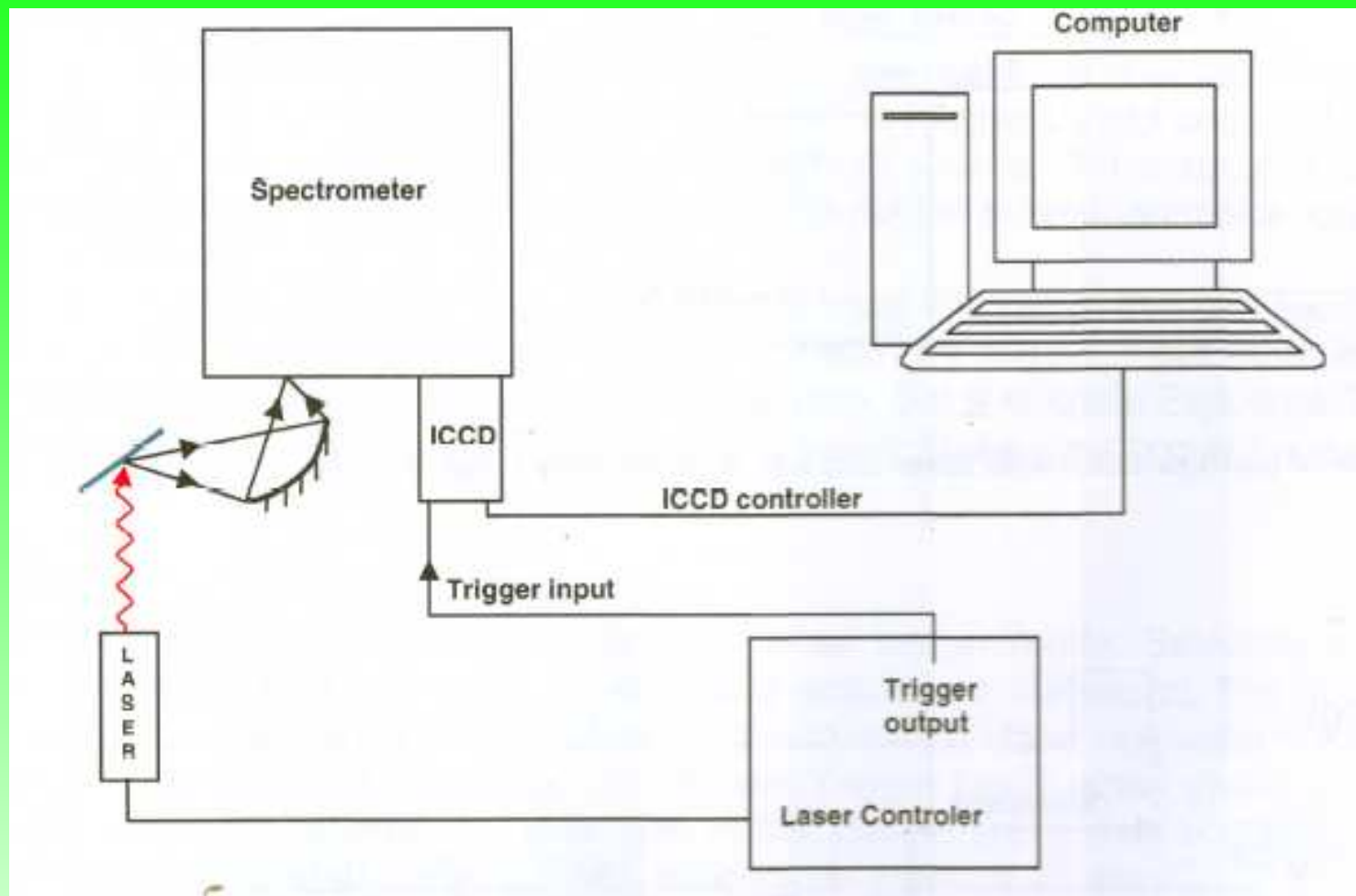
Typické mapování signálu - výstup programu LabSpec.



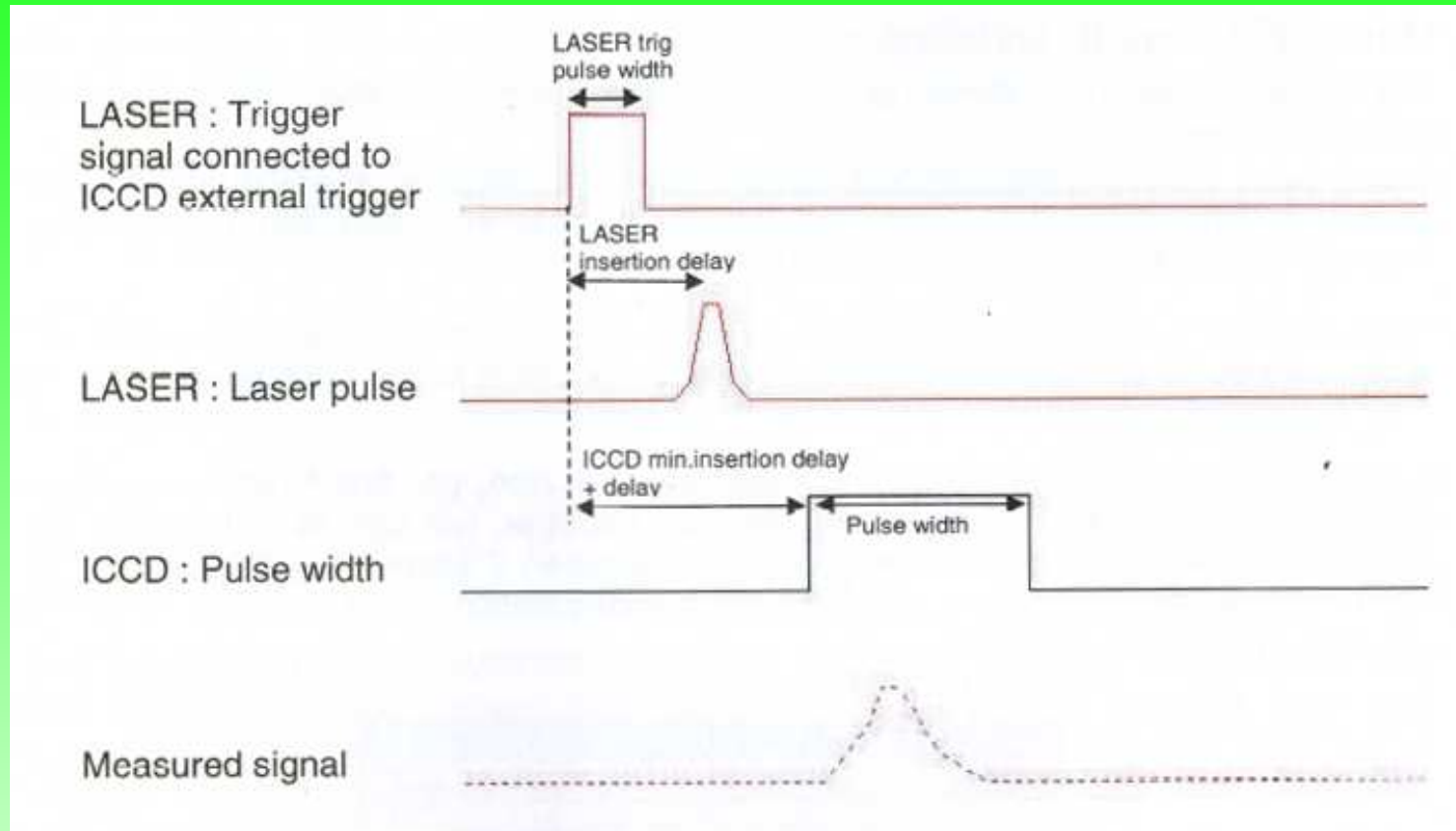
**Externí spouštění - ICCD jako master, pulzní zdroj světla (laser).**



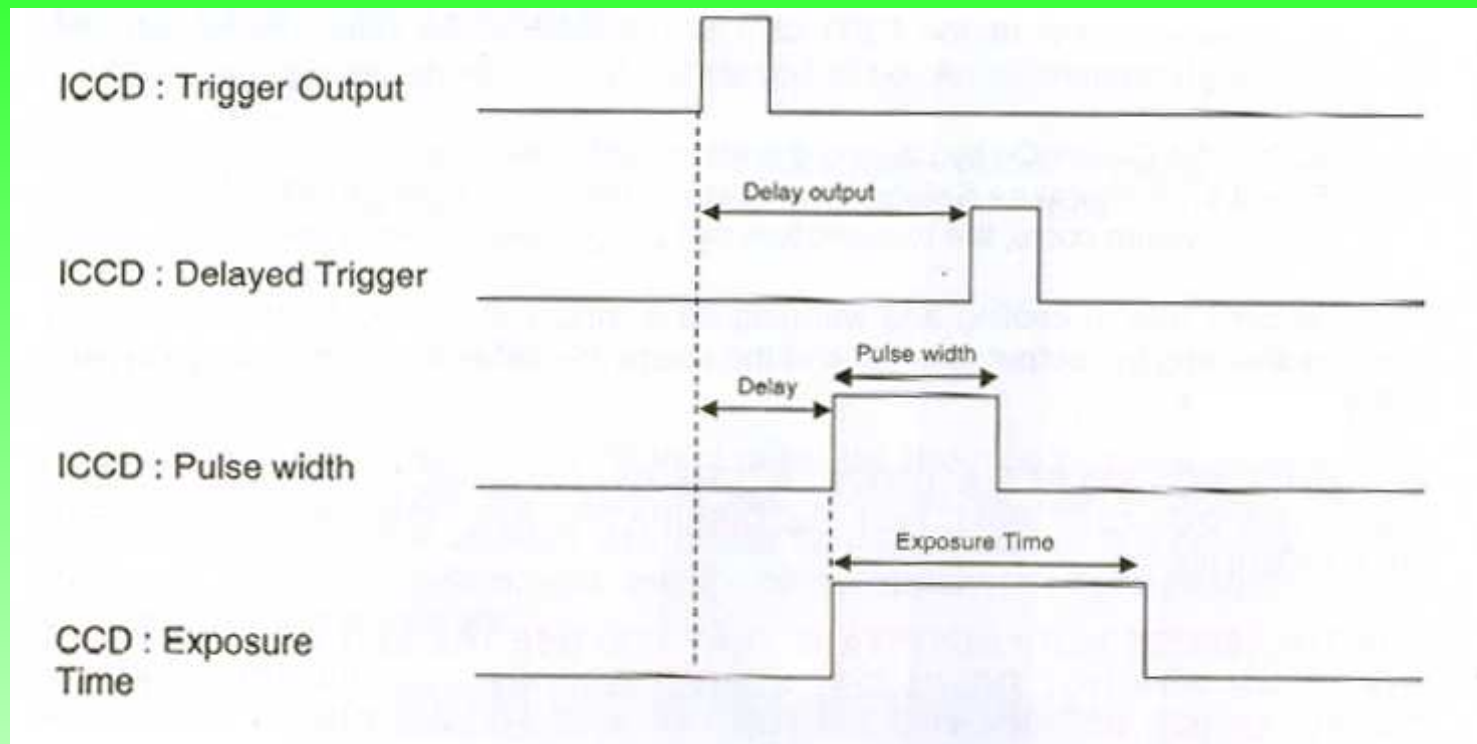
Časový diagram pro ICCD jako master.



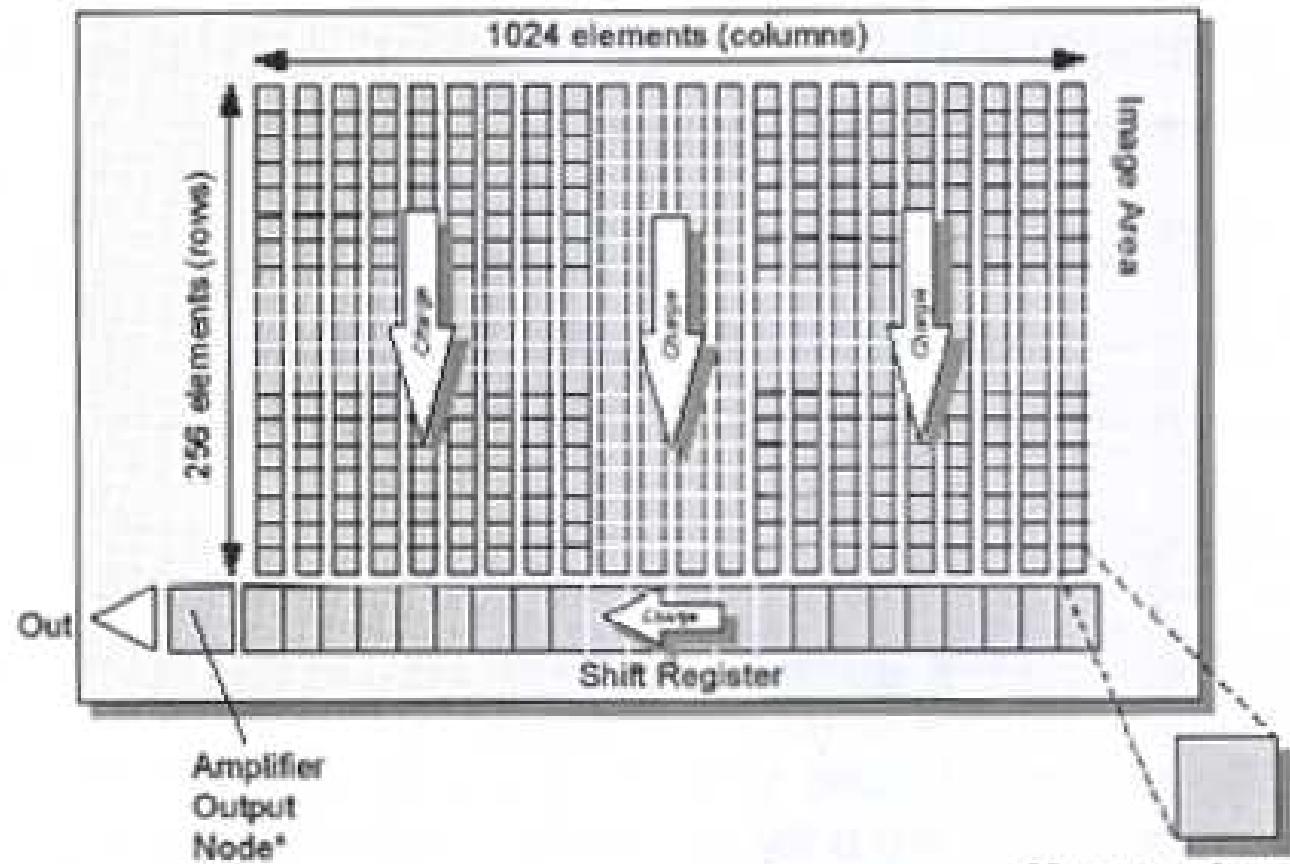
**Externí spouštění - ICCD jako slave, pulzní zdroj světla (laser).**



Časový diagram pro ICCD jako slave.

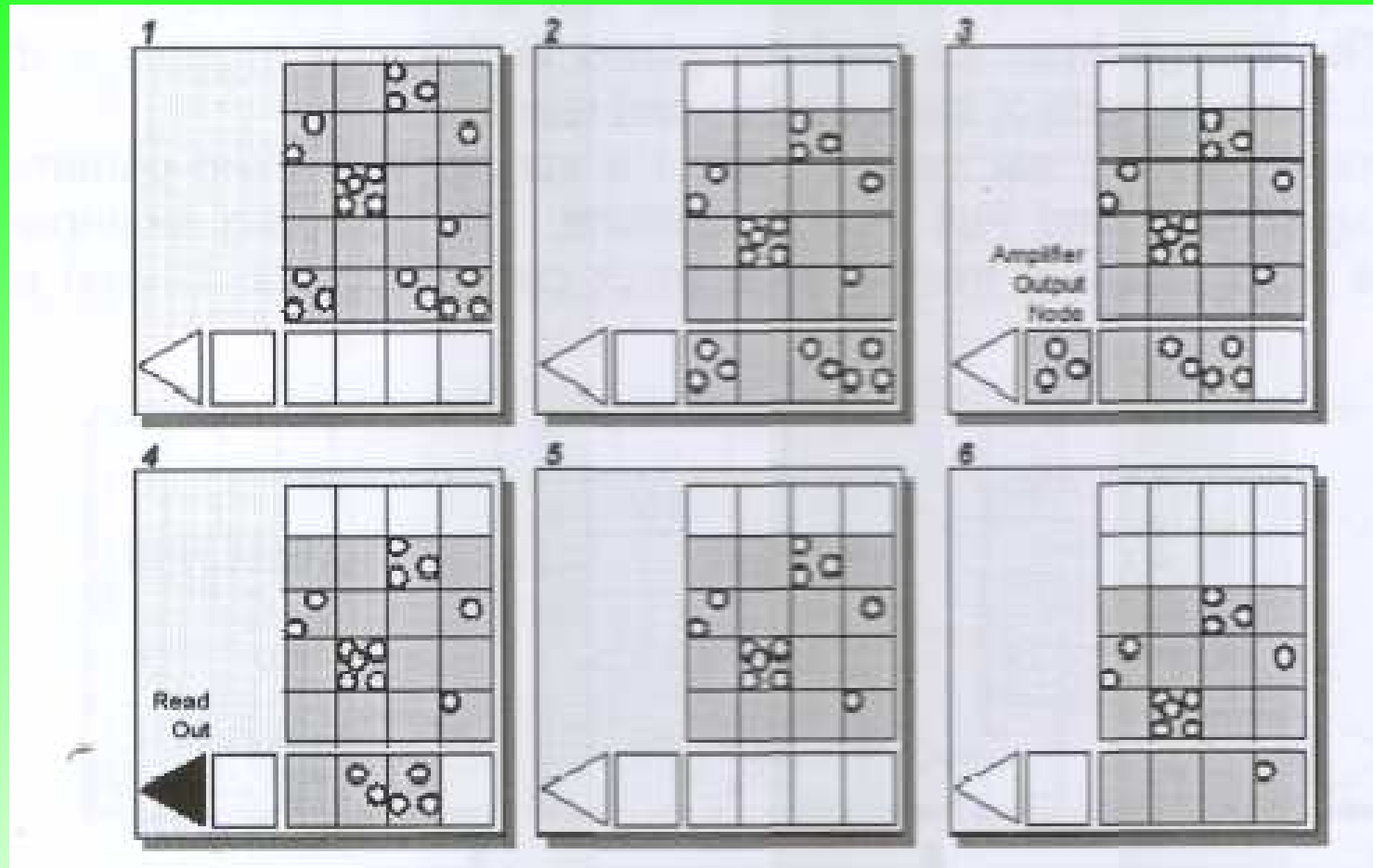


**Časový diagram charakteristických veličin.**

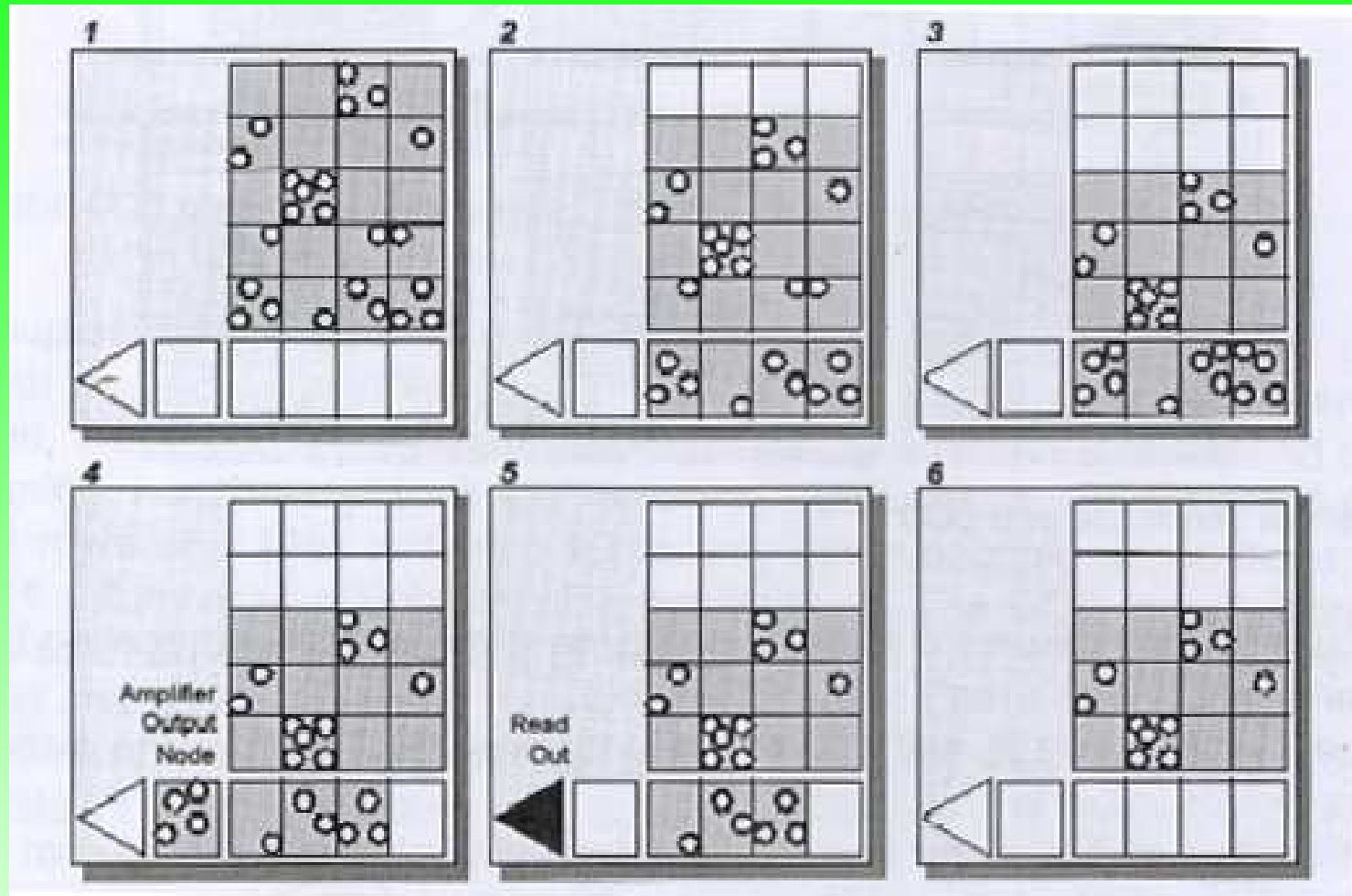


*\*Charge that is output from the shift register may be summed either on- or off-chip, depending on the chip model.*

26 square micron  
element or pixel







## Parametry ICCD Horiba Jobin Yvon 1024x256-18UVF

- 18 mm Gen II intensifier with Suprasil window
- Fiber optic output window
- S20 photocathode
- P43 phosphor
- Standard 36 lp/mm MCP
- Fast gating down to 5 ns
- Digital delay generator on PCI controller card