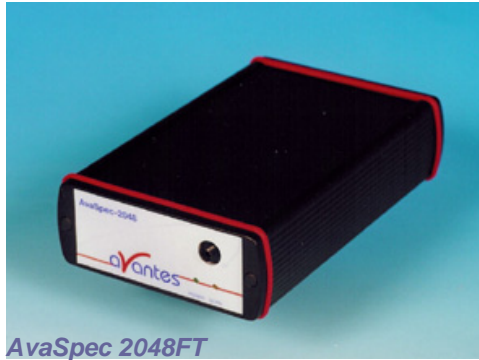


Fast Trigger Fiber Optic Spectrometer

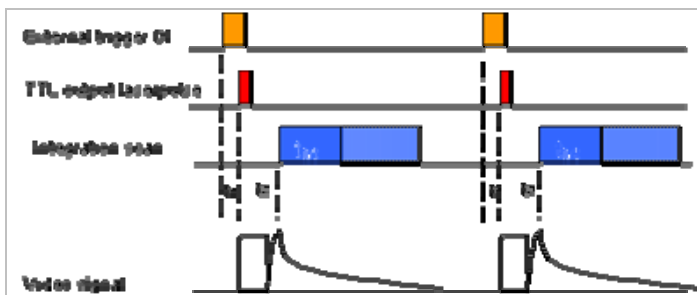


AvaSpec 2048FT

The **AvaSpec-2048FT** is a special version of the AvaSpec-2048 with USB1 platform, that can start integration time with nanoseconds delay after an external trigger. The external trigger can be applied by TTL signal to a Digital-in port in the AvaSpec's DB-15 interface connector. A TTL output port is available to trigger a pulsed laser and the nanoseconds delay before starting the integration time can be set in software (AvaSoft-Full required), the option for -42 ns negative delay makes it extremely useful for measuring pulsed lasers. The TTL output port can be used for Laser Induced Breakdown Spectroscopy (LIBS)

and fluorescence applications, where measurement needs to start after the laser has been fired. The **AvaSpec-2048FT** can be delivered in all configurations and has all features of the AvaSpec-2048. The **Multi-channel AvaSpec-2048FT-8** allows you to do LIBS measurements in the 200-1000nm range with 0.1 nm resolution. The USB2 platform offers even more flexibility and speed for the fast trigger applications. The **AvaSpec-2048/3648-USB2** have a programmable laser delay and laser pulsewidth. For the USB2 platform multiple scans can be controlled by software (AvaSoft-Full).

Timing Diagram



parameter	2048FT	2048-USB2	3648-USB2
t ₁ laser delay	fixed 1.3 μs	1.3μs-89sec	1.3μs-89sec
Steps for t ₁	n.a.	21 ns	21 ns
t ₂ integr. delay	-42ns-2.7ms	-20ns-89sec	-20ns-89sec
Steps for t ₂	42ns	21 ns	21 ns
t ₃ pulsewidth	fixed 15μs	21ns-1ms	21ns-1ms
Steps for t ₃	n.a.	21 ns	21 ns
t _{int} Integr time	2ms-60sec	1.1ms-10min	10μs-10min
Steps for t _{int}	1 ms	10μs	10μs