

Electro-Optic Systems

For some applications, we are able to provide not only the the Electro-optic cell as a component but also the driving electronic, and thus offer a complete system for laser beam modulation, pulse pickers, regenerative amplifiers, beam dumpers ...

Drivers for longitudinal cells : (see cells data sheet for details)

The numbers mentioned stand for : frequency bandwidth (analogue models), response time (rise and fall time), max. repetition rate (digital models) and max. theoretical wavelength for the Cell/driver combination. Other configurations are available on request (as an example, modulation at up to 400 MHz can be provided) : please contact your local sales office for details.

Driver Cell	10	25	50	100	200	302	302A	25D
350 - 50					1-200 MHz	0-0.2 MHz 875 nm	DC-1MHz	
350 - 80					1-200 MHz	0-0.2 MHz 1100 nm	DC-1MHz	25 MHz 8 ns 354 nm
350 - 105					1-140 MHz		DC-1MHz	20 MHz 8 ns 430 nm
350 - 160	0-12 MHz 460 nm	0-35 MHz 460 nm			1-100 MHz		DC-1MHz	20 MHz 8 ns 710 nm
350 - 210	0-12 MHz 530 nm	0-30 MHz 530 nm	0-60 MHz 400 nm	0-120 MHz 400 nm	1-80 MHz		DC-1MHz	20 MHz 8 ns 820 nm
360 - 40					1-200 MHz	0-0.3 MHz 2120 nm	DC-1MHz	
360 - 80					1-200 MHz	0-0.3 MHz 4500 nm	DC-1MHz	20 MHz 8 ns 1010 nm
360 - 160	0-13 MHz 1390 nm	0-40 MHz 1390 nm	0-80 MHz 1040 nm	0-130 MHz 1040 nm	1-125 MHz		DC-1MHz	20 MHz 8 ns 2135 nm
360 - 120	0-12 MHz 2090 nm	0-35 MHz 2090 nm	0-60 MHz 1575 nm	0-120 MHz 1575 nm	1-150 MHz		DC-1MHz	10 MHz 8 ns 3235 nm
370					1-125 MHz	0-0.2 MHz 850 nm	DC-1MHz	20 MHz 8 ns 505 nm
370 - LA					1-125 MHz	0-0.2 MHz 850 nm	DC-1MHz	20 MHz 8 ns 355 nm
380	0-10 MHz 650 nm	0-25 MHz 650 nm	0-50 MHz 490 nm	0-100 MHz 490 nm	1-80 MHz		DC-1MHz	20 MHz 8 ns 810 nm

Electro-Optic Systems : Pulse Pickers & Regenerative Amplifiers

Electro-optics cells are commonly used to select one (or several) pulse(s) within a pulse train or within a regenerative amplifier cavity. We offer the required electronics with all input / output / triggering and synchronisation functions necessary for these applications.

Pulse Pickers

System		Electronic		Modulator	
Driver Reference	Cell Reference	min FWHM (ns)	Maximum rep rate	I min - I max (nm) *	Dynamic @ I max (nm) **
25D	350-160	18 (variable)	20 MHz	350-700	80%@1000
25D	360-80	18 (variable)	20 MHz	600-1000	37%@2500
25D	360-120	18 (variable)	20 MHz	600-1350	56%@2500
25D	360-160	18 (variable)	20 MHz	600-2000	93%@2500
306	350-50	18 (fixed)	75 kHz	350-880	96%@1000
306	360-40	18 (fixed)	75kHz	600-2000	96%@2500
304-225	350-160	18 (fixed)	50kHz	350-830	92%@1000
304-225	360-80	18 (fixed)	50kHz	600-1150	54%@2500
304-450	350-80	18 (fixed)	20kHz	350-850	94%@1000
304-450	360-40	18 (fixed)	20kHz	600-1200	46%@2500

All the systems are 2.7mm aperture except the 350-50 cell (3.1 mm)

* λ max for a dynamic of 100%

** λ max and associated dynamic

Regenerative Amplifiers

System Reference	Rise Time (ns)	Repetition rate (max)	Aperture (nm)	I max 1 pass	I max 2 passes	Pulse width (ns)
307 / 350-26	5	50kHz	2.7	400	800	40 - 500
307/ 350-50	5	50kHz	3.1	880	1000	40 - 500
307/350-50 LA	5	50kHz	5.7	450	900	40 - 500
25D / 350-105	8	20MHz	3.1	400	800	18 - DC