FASTLITE

Ultrafast - Shaping - Measurement - Control

OCTOPUZZ
Advanced synchronization unit

Specifications

The Octopuzz is an advanced synchronization unit to control the synchronization and the logical combination of lasers, translation stages, Dazzlers, choppers, spectrometers, cameras, etc...

✓ **Logical functions between inputs and outputs**

✓ **2 to 4 input controls, 8 to 10 TTL trigger outputs**

✓ **Internal/External 100Hz – 100kHz trigger reference**

✓ **Internal/External MHz clock reference,**

   with reshaped output at multiplied/divided frequencies

Clock Specifications

Parameter	Min	Max	Unit
Internal reference			
Frequency	10	100	MHz
External reference input			
Frequency	10	85	MHz
Analog amplitude	0.1	1	V
Analog pulse width	1		ns
TTL amplitude	1.2	2.2	V
TTL duty cycle	40	60	%
Input impedance	50		Ω
Clock output			
Pulse-to-pulse jitter		30	ps
Low level		0.1	V
Hi level	2.5		V

Trigger Specifications

Parameter	Min	Max	Unit
External reference input			
Frequency	0.1	100	kHz
Positive threshold	3.2		V
Input impedance	1k		Ω
Internal generation			
Divider	16	1048576	
Trigger outputs			
Pulse duration		10	µs
TRIG0-to-TRIGx delay	17	22	ns
Delay range	0	100	ms
Delay step		0.5	ns
Delay precision		0.25	ns
Pulse-to-pulse jitter		30	ps
Output impedance		50	Ω
Low level		0.1	V
High level	2.5	5	V
Resynchronization Delay			
@ 10 MHz	250	350	ns
@ 100 MHz	65	75	ns