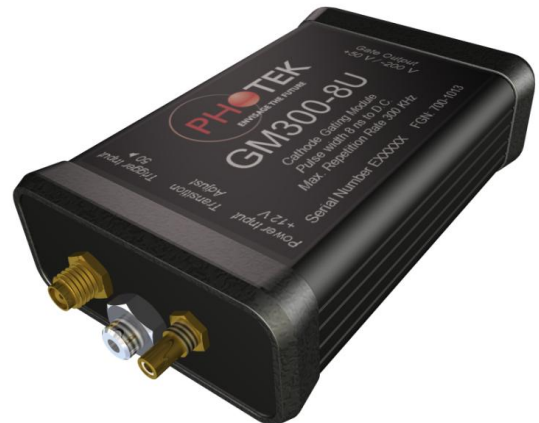


GM300-8U Gate Module

Features

- Photocathode gate module
- 8 ns gate time (FWHM)
- Adjustable rise/fall time: 5 to 13 ns
- 300 KHz repetition rate
- Trigger input
- Universal: Works in normally ON or OFF modes
- No drift at low repetition rate: PMT compatible



Parameters

	Minimum	Maximum
Gate Time T_g	8 ns FWHM*	Unlimited (D.C.)
Repetition Rate	0 Hz "Single Shot"	300 KHz global, 2.5 MHz burst mode
ON Voltage Output	-200 V	
OFF Voltage Output	+50 V	
Trigger Input	+3.2 V into 50 Ω	+5.5 V into 50 Ω
Power Supply	+10 V	+14 V
Quiescent Current @ +12 V	180 mA (1 A inrush current)	
Jitter	40 ps r.m.s. (fastest transition)	70 ps r.m.s. (slowest transition)
Maximum Capacitance Load	250 pF	
Minimum Resistance Load	10 M Ω	

*Actual gate time is dependent on the detector. This gate time is the minimum that the GM300-8U can provide. The transition speed is adjusted by a 20 turn external potentiometer: Turn clockwise for faster transition.

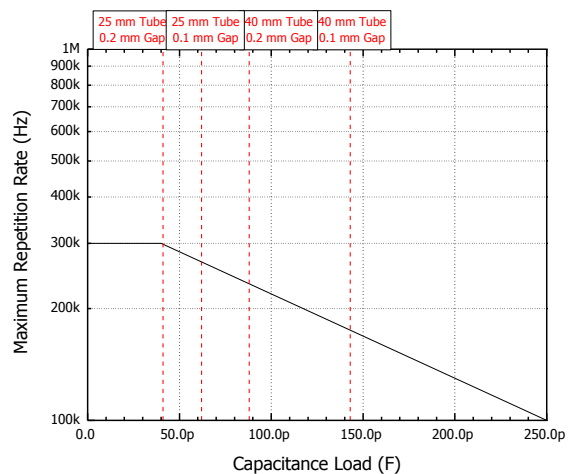
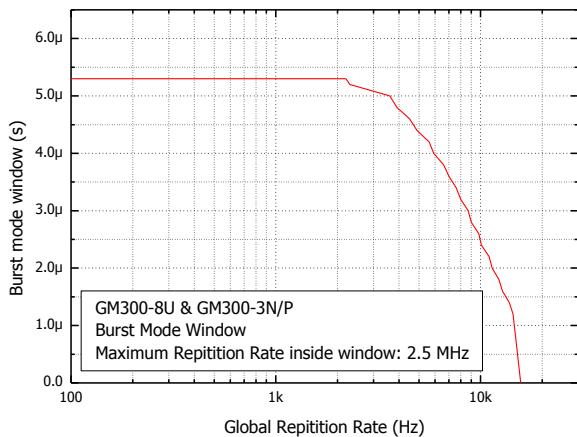
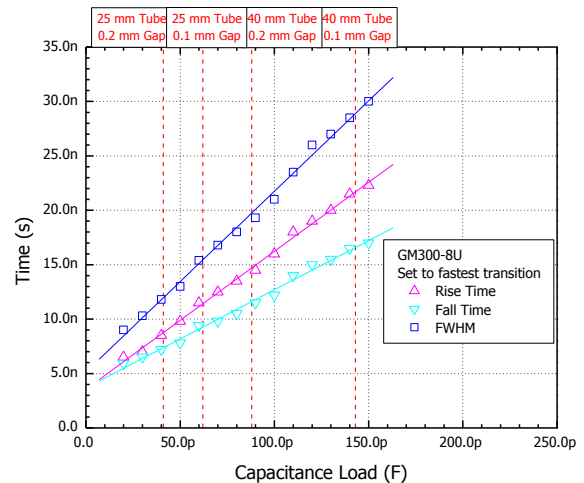
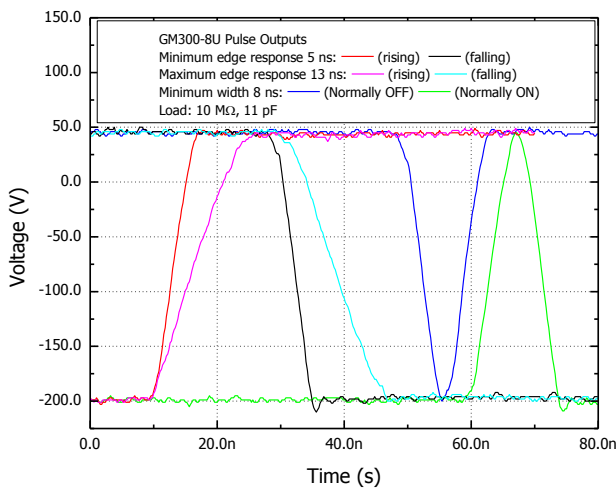
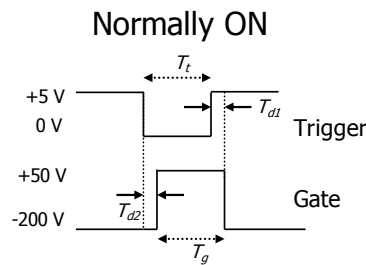
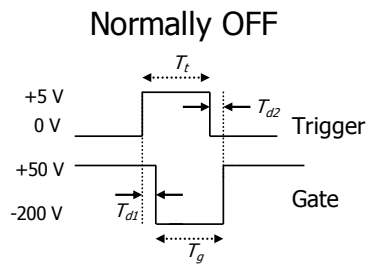
Mechanical

	Housed	Bare PCB
Height	26 mm	13 mm
Width	56 mm	38 mm
Length	86 mm (106 mm including connectors)	80 mm (106 mm including connectors*)
Weight	115 g	45 g
Trigger Input Connector	SMA	
Power Supply Connector	SMB	
Gate Pulse Connector	SMA	

* Right-angled connectors would reduce the total length to 100 mm and enable easier access. Available on request.

Typical Timing Parameters

		Fastest Setting		Slowest Setting	
		Minimum	Maximum	Minimum	Maximum
ON / OFF Transition Propagation Delay	T_{d1} / T_{d2}	30 ns	32 ns	36 ns	38 ns
Trigger / Gate Offset Time $T_t - T_g$	$T_{d1} - T_{d2}$	0 ns	2 ns	0 ns	2 ns
Propagation Delay Temperature Co-efficient		35 (\pm 5) ps / °C			
Gate Width Temperature Co-efficient		\pm 10 ps / °C			



Photek Ltd reserves the right to update and improve this specification without prior notice.

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