



# TRION-VGPS-20/100-V3



<b>PTP / IEEE 1588</b>		
IP Mode	Multicast	
Protocol	UDP / IPv4; ETH	
Delay mechanism	End-to-end, peer-to-peer	
IP address method	DHCP	
RJ-45 Ethernet	10/100 Mbit Ethernet connection; only for synchronization, no data transfer possible.	
Programmable correction limit	10 ns to 500 ms	
<b>IRIG input specifications</b>		
Supported codes	IRIG code A or B; AM or DC	
Compatibility (AM code)	0.5 V <sub>p-p</sub> to 10 V <sub>p-p</sub>	
Compatibility (DC code)	DC level shift (edge detection); TTL / CMOS compatible	
	Low: <1.5 V      High: >3.5 V	
Impedance	20 kΩ	
Isolation voltage	350 V <sub>DC</sub>	
Connector	BNC	
<b>IRIG output specifications</b>		
Supported codes	IRIG code B, DC	
<b>Digital I/O specifications</b>		
Number of channels	8	
Compatibility (input)	CMOS/TTL, weak pull-up 100 kΩ to +5 V	
	Low: <0.8 V      High: >2.0 V	
Compatibility (output)	TTL, 20 mA	
Overvoltage protection		
– Input mode	±30 V <sub>DC</sub>	
– Output mode	-0.5 to +5.5 V; short circuit protected	
Connector	D-SUB-15 socket	
<b>Counter specifications</b>		
Number of channels	1 advanced counter or 3 digital inputs	
Counter modes	Event counting	Basic event counting, gated counting, up/down counting and encoder mode (X1, X2 and X4)
	Waveform timing	Period, frequency, pulse width, duty cycle and edge separation
	Sensor modes	Encoder (angle and linear), gear tooth with/without zero, gear tooth with missing/double teeth
Input signal compatibility	CMOS/TTL	
Counter resolution	32-bit	
Counter time base	80 MHz	
Time base accuracy	Typical 10 ppm (DEWE2); 2 ppm (DEWE3); (defined by the backplane)	
Maximum input frequency	10 MHz	
Overvoltage protection	±30 V <sub>DC</sub> , 50 V <sub>PEAK</sub> (for 100 ms)	

Tab. 65: Module specifications

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Sensor power supply	5 V (600 mA) and 12 V (600 mA)
Connector	On same D-SUB-15 socket as Digital I/O
<b>AUX specifications</b>	
Functionality	Camera trigger, trigger input/output, acquisition clock and programmable clock output
Compatibility (input)	LVTTTL
Compatibility (output)	LVTTTL, 10 mA
Overvoltage protection	$\pm 20 V_{DC}$
Connector	SMB socket
<b>General specifications</b>	
Typical power consumption	5 W
Temperature Range	0–50 °C
Weight	Approx. 240 g

Tab. 65: Module specifications

- 1) Typical values. Performance specifications subject to GNSS system characteristics, Signal-In-Space (SIS) operational degradation, ionospheric and tropospheric conditions, satellite geometry, baseline length, multipath effects and the presence of intentional or unintentional interference sources.
- 2) Hardware ready for L3 and L5.
- 3) Typical value. No almanac or ephemerides and no approximate position or time.
- 4) Typical value. Almanac and recent ephemerides saved and approximate position and time entered.
- 5) Time accuracy does not include biases due to RF or antenna delay.
- 6) Export licensing restricts operation to a maximum of 515 m/s, message output impacted above 500 m/s.