



Comark+ Laser

New “Fog proof” generation laser



Comark+ Laser is developed for accurate **transit detection, triggering, vehicle classification, and precise measurement applications**. Thanks to its innovative 210° scan angle, it reliably detects vehicles traveling at speeds of up to 250 km/h and it covers up to two lanes simultaneously.

Comark+ Laser is a **high precision laser** for analysis suitable for transit detection, trigger, classification, and precise measurement purposes.

The revolutionary technology «**fog-proof engine**» avoids interferences in harsh weather conditions.

Compact size and **all-in-one solution, no external PC required**.

Internal AI point cloud processing **100 Hz, 210°**.

LTE (optional) is easily accessible.

Available with **RADAR** as option for **3D classification**.

As an option, it is provided with a customized length, ready-to-use cable (no connector assembly required).



VEHICLE MONITORING | TRAFFIC ANALYTICS | TOLLING

Comark+ Laser

	Comark+ Laser		Comark+ Laser with Radar
Technical Features			
Installation	Transversal		
Software Platform	Stark		
AI accelerators	1 hardware accelerator		
Radar	optional		
Lanes	Up to 2		
Max vehicle speed	250 km/h - 155 mph <i>Motorbikes: 200 km/h - 124.3 mph</i>		
Transit detection	Up to 99.5 %		
Vehicle classification	TLS 8+1		
Raw point cloud	YES		
AES256	YES		
Fog filter processor	1 dedicated hardware		
Vehicle Speed Estimation	NO	YES	
Vehicle Direction Identification	NO	YES	
Vehicle Length Estimation	NO	YES	
Vehicle Height Estimation	YES		
Trigger source for Stark ANPR Camera	YES		
Laser Data			
Light Source	Infrared (905 nm)		
Laser Class	Class 1		
Scan Angle	210°		
Scanning frequency	100 Hz		
Radar			
Type	-	Multilane radar transceiver	
Frequency Band	-	24.075 to 24.175 GHz	
EIRP Max	-	20 dB	
Configuration			
Web Server	Installation and configuration with on board Web Application		
Integration	REST and binary protocol available		
Dater and Hour	Synchronization via NTP protocol		
Time Synchronization Accuracy	200us - 10ms		
Software Update	Upgrading via Web Aplication and integration protocols		
Data Transmission			
Output action Types	HTTP, HTTPS, FTP, SFTP, TCP RAW, Local Storage		
Message formats	Fully customizable message formats including JSON, XML, custom string		
Configuration	Configurable event/actions and metadata		
FTP Server	Yes, access to storage partition		

	Comark+ Laser		Comark+ Laser with Radar
System			
Input / Output	"1 Opto Input / 2 Opto Output 0 Opto Input in case of heater 0 Opto Input in case of heater"		
Ethernet	Fast Ethernet 10/100 Mb/s		
Storage	8 GB		
Antitampering functionality	YES		
Ambient Protection	Optional		
Heater	Optional		
Diagnostic LED	YES		
GPS	NO		
LTE	Optional		
WiFi	NO		
RAM	2 GB		
Processor Speed	1.2 GHz		
Technical Data			
Operating & Storage Temperature	From -30° to +60 °C - From -22° to +140 °F		
Operating & Storage Temperature with Heater	From -40° to +60 °C - From -40° to +140 °F		
Operating & Storage Humidity	Up to 95% non-condensing		
Dimensions	136 x 155 x 245 mm - 5.35 x 6.1 x 9.64 in		
Dimensions with Ambient Protection	208 x 191 x 245 mm - 8.18 x 7.52 x 9.64 in		
Power Supply Voltage	24 Vdc ±10 % or 12Vdc ±10 %		
POE+	YES		
Typical power consumption in standard configuration without optionals	24V/12V supply: 11W PoE+ supply: 12W	24V/12V supply: 13W PoE+ supply: 14W	
Max power consumption in standard configuration without optionals	24V/12V supply: 13W PoE+ supply: 14W	24V/12V supply: 15W PoE+ supply: 17W	
ΔPower LTE + sim	typical: +3W / max: +9W		

Part Numbers

Comark+ Laser	
F02800	Comark+ Laser
F02800-100	Comar+ Laser + Radar