CityRadar

Pedestrian and Cycle Detection

The CityRadar is designed and optimized for Smart City applications:

▶ Temporary or periodic counting
▶ Permanent counting
▶ Bicycle information systems

A technical innovation

The CityRadar allows for the collection of volumetric and classified data without the need for in-ground sensors. This radar product has been designed without traditional low speed cut-out filters to be able to very accurately handle both dedicated and mixed paths with cycles and pedestrians. The detection of cycles and pedestrians can even be done with a backdrop of normal road traffic.

The CityRadar's ability to count groups of cyclists and carbon fibre bikes is superior to other known sensor technologies thanks to its advanced radar sensor and sophisticated discrimination algorithms.

Cost effective installation

The CityRadar is a single integrated unit without need for in-ground sensors which makes it easy and quick to install and easy to move. It can also be installed adjacent to car lanes due to advanced discrimination features.

The unit has Bluetooth for easy installation and configuration. Smart security is implemented to ensure the high level of security that is a cornerstone of the TagMaster products and combine this with the easy-of-use that is expected. A physical paring (requiring access to the padlock of the equipment) is always used when establishing a connection the very first time. Later use of a Bluetooth connection with the same device is done via a unique password in the background, without requiring any specific user interaction.

It is supported by EasySetup, a modern and very well-designed Android app for setup. This provides all the tools needed for site installation and commissioning, site validation and fault diagnostics as well as manual data collection if required. CityRadar is compatible with all TagMaster Traffic Monitoring software products and is UTMC compatible in conjunction with Catalyst. The middleware EasyData offers a Rest API running as a Docker image and EasyAnalysis offers web-based analysis of data from the unit.

The CityRadar can either be used for permanent or temporary installations. The ease of installation means units can be installed and removed quickly and easily, allowing for rapid deployment on existing street furniture. Data can be captured at various locations prior to new cycle ways being introduced to ensure they are in the most effective location. It can also be used to collect bicycle data to allow traffic planners to determine if bicycle path improvements are required. Devices can either be solar or mains powered for permanent installations, or battery powered for short surveys. For permanent installations PoE can be used for power and Ethernet Communications. Units are fitted with an internal 3G/4G modem for remote data collection.

PART NO. INFORMATION	DESCRIPTION
212010, CityRadar	Radar with Bluetooth, 4G and Ethernet
10119, Radar Accessory Kit	Optional accessories
199380, 12V, 24Ah Battery	LiFePO4
199390, Charger	Suitable for LiFeO4 battery

TECHNICAL INFORMATION

Configurations	:	Dedicated lane for bicycles and pedestrians
	:	Mixed lanes for bicycles and pedestrians
	:	Max 8m across the road
	:	Radar installations angles 45° or 35°
	:	Radar installation height 1.8 m – 2.0 m
Count accuracy	:	90%+ typical cycle/pedestrian
Speed accuracy	:	± 5km/h (±3mph) cycle/pedestrian
Operating time	:	Depending on battery/solar options. Up to 10 days on 12V 17Ah battery (using modem communications)
Data storage	:	4GB (approx. 100,000,000 objects)
Number of files	:	Maximum 256 data files
Surveys Supported	:	Historical VBV, Historical Binned, Real-time VBV, Real-time Binne
Power Supply	:	Battery 6/12VDC, 12V Battery Charger, External Solar Panel 15-26VDC, PoE IEEE 802.3af
Temperature	:	-40°C to +85°C (Depending on batteries used
Dimensions	:	36x32x23 cm
Weight	:	5.8kg (as mounted but excluding battery)
SW Support	:	EasySetup Android App for configuration and setup. EasyData or Catalyst for data collection and system integration.
Communication	:	Bluetooth/3G/4G/Ethernet
Approval	:	EN 62368-1, Electrical Safety General
		EN 60950-22, Electrical Safety Outdoor
		EN 55032: 2015, EMC
		EN 301 489-1
		EN 301 489-51
		EN 301 489-52
		FCC 47 CFR Part 15
		ICES-003 Issue 7
		IEC 60068-2-6 Fc, Sine
		IEC 60068-2-27 Ea, Shock
		IEC 60068-2-64 Fh, Vibration
		IEC 60529 2013 IP66
		UL94 HB, Flammability
		2002/95/EC, 2011/65/EU, 2015/863, RoHS/RoHS2/RoHS3

Due to TagMaster's continuous effort to develop the products in response to customer needs, the above specifications are subject to change.

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