

Smart Parking

Reference Application

EXPLORE THE NEXT SENSE

Thanks to its high accuracy, robustness and aperture-less integration, Acconeer's pulsed coherent radar is a perfect fit for smart parking solutions. Use this reference application together with the XM122 IoT Module to speed up development and shorten time to market for parking sensors.

Suitable outdoors



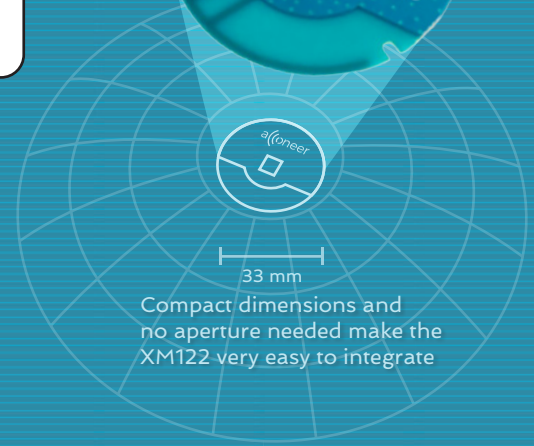
To be mounted on ground at the beginning, center or end of the parking lot.



For vehicles with a ground clearance of 12 cm and up.



Proof of concept



How we have tested

The XM122 is proven to give 100% detection success no matter where it's placed under the vehicle and no matter the temperature¹.



High span for tests	Under the tank	Under the middle	Under the motor	No vehicle
	100%	100%	100%	100%

100% detection success:

The XM122 was during the tests placed on ground in a cover and without a lens. The tests were made with different vehicle heights.

Power consumption at 0.1 Hz update rate

2.0 V supply
0.037 mA (mean)
0.074 mW

Temperature	True detection rate (mean / std)	False detection rate (mean / std)
85°C	99.8% / 0.324	0.00375% / 0.00992
25°C	99.9% / 0.328	0.0338% / 0.065
-40°C	100% / 0.0	0.179% / 0.28

The tests were also made in a temperature chamber, but without the variations in position and height. The update rate was set to 10 Hz².

(1) We have not tested the reference application in other potential weather conditions besides different temperature. Extremely rainy, snowy or icy conditions might require additional measures.
(2) To save power, the recommended update rate is 0.1–0.5 Hz.

Download SDK including reference application at:
www.developer.acconeer.com

