

# Air Quality Monitoring Wireless System

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## Emission rate model

$$E_i = \frac{e_i f_i}{A_i}, i = 1, \dots, N_e \quad (1)$$

where:

$ppm = gveh./m^3$  is the unit measure of pollutant concentration

$ut$  is the temporal unit

$N_e$  is the total number of source elements

$e_i$  is the emission factor of the  $i$ th element of the mesh, evaluated in  $g/m$

$f_i$  is the vehicle flow of the  $i$ th element, evaluated in  $veh./ut$

$A_i$  is the  $i$ th-element area, evaluated in  $m^2$

$E_i$  is the emission rate of the  $i$ th element, evaluated in  $ppm/ut$