

## CO<sub>2</sub> Emissions Report

### Identification Data

**Product PN:** ICR-2431W  
**Device Type:** LTE Industrial Router  
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### Unit Manufacturing Emissions

Item	Amount	Unit
Manufacturing power consumption	0.015	kWh/unit
Factory emission factor	0.42	kg CO <sub>2</sub> e/kWh
<b>Annual operation emission</b>	<b>0.0063</b>	<b>kg CO<sub>2</sub>e/unit</b>

### Assumed Usage Scenario

Item	Amount	Unit
Typical mode Power	3.6	W
DailyWorking hours	24	hrs/day
Annual operating days	365	days/year
MTBF	198,648	hours
Device lifespan	22.68	years

### Emission Estimation of Product Usage

Item	Amount	Unit	Calculation Description
Emission factor <sup>1)</sup>	0.34	kg CO <sub>2</sub> e/kWh	Average emissions intensity of electricity generation.
Consumption	31.536	kWh/year	Consumption(kWh/year) = Power × DailyWorking hours × Annual operating days.
<b>Yearly CO<sub>2</sub> emissions</b>	<b>10.72</b>	<b>kg CO<sub>2</sub>e/year</b>	CO <sub>2</sub> Emissions of product use = Consumption × Emission factor
<b>Lifespan CO<sub>2</sub> emissions</b>	<b>243.15</b>	<b>kg CO<sub>2</sub>e/lifespan</b>	The total CO <sub>2</sub> emissions over the lifespan of the device are estimated by multiplying the yearly emissions by the device lifespan.

<sup>1)</sup>Emission factors are based on the International Energy Agency's (IEA) 2019 Global Energy Review.