Trimble EM140

Empower Module

Radio

2.4 Ghz Bluetooth® Long range Robotic Radio

Environmental Specifications

Independently tested IEC ratings:	
Water/dust ingress	Dust and water ingress: IP68 (IEC 60529)
Meets or exceeds the following standards based on MIL-STD-810H test ratings:	
Drops	Survives multiple drops from 1.2 m (4 ft) onto concrete*; Method 516.8, Procedure IV
	Drop test temperatures: ambient cold drop -30 °C (-22 °F), hot drop at 60 °C (140 °F)
Operating temperature	-30 °C to +60 °C (-22 °F to +140 °F)
Storage temperature	-40 °C to +70 °C (-40 °F to +158 °F)
Temperature shock	-35 °C to +65 °C (-31 °F to +149 °F)
	MIL-STD-810H, Method 503.7, Procedure I-C
Humidity	95% relative humidity temperature cycle between 30 °C and 60 °C (86 °F and 140 °F)
	MIL-STD-810H, Method 507.6, Procedure II
Vibration	General minimum integrity and loose cargo tests; Method 514.8, Procedure I & II
	Low pressure altitude storage, operational, rapid decompression: MIL-STD-810H, Method 500.6, Procedures I, II, III
Contamination	Method 504.3, Procedure II

Physical Dimensions

Dimensions (L x W x H)	116 mm x 56 mm x 35 mm (4.56 in x 2.20 in x 1.37 in)
Weight	102 grams
Housing	Polycarbonate + Polycarbonate/PET blend
Color	Black

* Drop tested on all faces, corners and edges (26 drops) while attached to the host device.

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Compliance Certifications

	FCC & IC approval; ACMA approval; CE Mark; UKCA; NCC

In the Box

	Trimble® Empower™ EM140 module
	External antenna

Key Features

	Rugged, meets the rigorous MILSTD- 810G military standard for drops, vibration, humidity, and extreme temperatures with IP68 rating for dust and water ingress
	License-free radio
	Optical tilt compensation enabled

Software Support

	Trimble Access™
	Trimble Siteworks
	Trimble Fieldworks
	Trimble FieldLink (version 2026.1.0 and later)
	Spectra Geospatial® Origin
	Trimble Empower Hub

Trimble Protected Protection Plans

Add a Trimble Protected protection plan for worry-free ownership over and above the standard Trimble product warranty. Added enhancements include coverage for wear & tear, environmental damage, and more. Accidental damage is covered with Premium plans, available only at point-of-sale in selected regions. For details, visit **trimbleprotected.com** or contact a local Trimble dealer.

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