



The bridge to possible

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Cisco FM Shield Bracket

Radio Mounting Kit for High-Impact Environments

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Cisco® FM Shield Bracket provides an easy-to-use, reliable, and robust method of installing Cisco FM radios in extreme environments. This auxiliary mounting kit is designed to withstand specialized hazards, such as extreme vibration, highly pressurized hot and cold water, and destructive impacts from heavy objects. FM Shield Bracket also provides a solid platform from which to install and maintain a Cisco FM radio under challenging conditions.



FM Shield Bracket was designed with open-pit and underground mining in mind, with specific focus on haul trucks, dozers, shovels, drills, and loaders. The difficult environmental conditions of mining often mean that radios can be installed only inside the cabins of vehicles. This requires longer-than-optimum antenna cables, leading to degraded RF performance. In addition, the cabs of mining vehicles usually have limited space for installation and maintenance of radio gear. FM Shield Bracket solves all these problems, allowing customers to install a Cisco FM radio outside a vehicle and as close as possible to its antennas, thus limiting RF losses and increasing transmission ranges. As usual, power and connectivity can be provided by Power over Ethernet (PoE) using a Category 5/6 cable or through dedicated data and DC power connections.

Since it allows a larger range of installation options, FM Shield Bracket provides customers with a platform to leverage Cisco FM Multiprotocol Label Switching (MPLS) technology, and deploy multiradio beam-forming configurations on vehicles. Using FM Shield Bracket, protected radio units can be freely installed around a vehicle without the need to run overly long antenna cables. This feature is particularly valuable on, for example, dual-radio haul trucks and when building a beam-forming configuration on a large shovel or drilling rig.

FM Shield Bracket has been designed to fit all major-brand mining trucks and for applications such as fleet management, tele-remote dozing, autonomous drilling, and autonomous hauling. FM Shield Bracket includes N-type connectors for RF cables, a metal structure with a variety of mounting holes, and a mounting bracket designed to fit tubular structures such as railing systems.

FM Shield Bracket is compatible with all Cisco FM4200 Fiber, FM3200 Endo, FM3500 Endo, FM4500 Mobi, and FM4500 Fiber radios. The kit includes QMA-to-N jumper cables and a semitransparent polycarbonate front cover to allow for easy inspection of the radio gear.

FM Shield Bracket is the result of more than 100,000 hours of field testing and validation in a production environment under the most extreme conditions and demonstrates our understanding of and commitment to customer requirements for reliable wireless communication in operational technology (OT) environments.

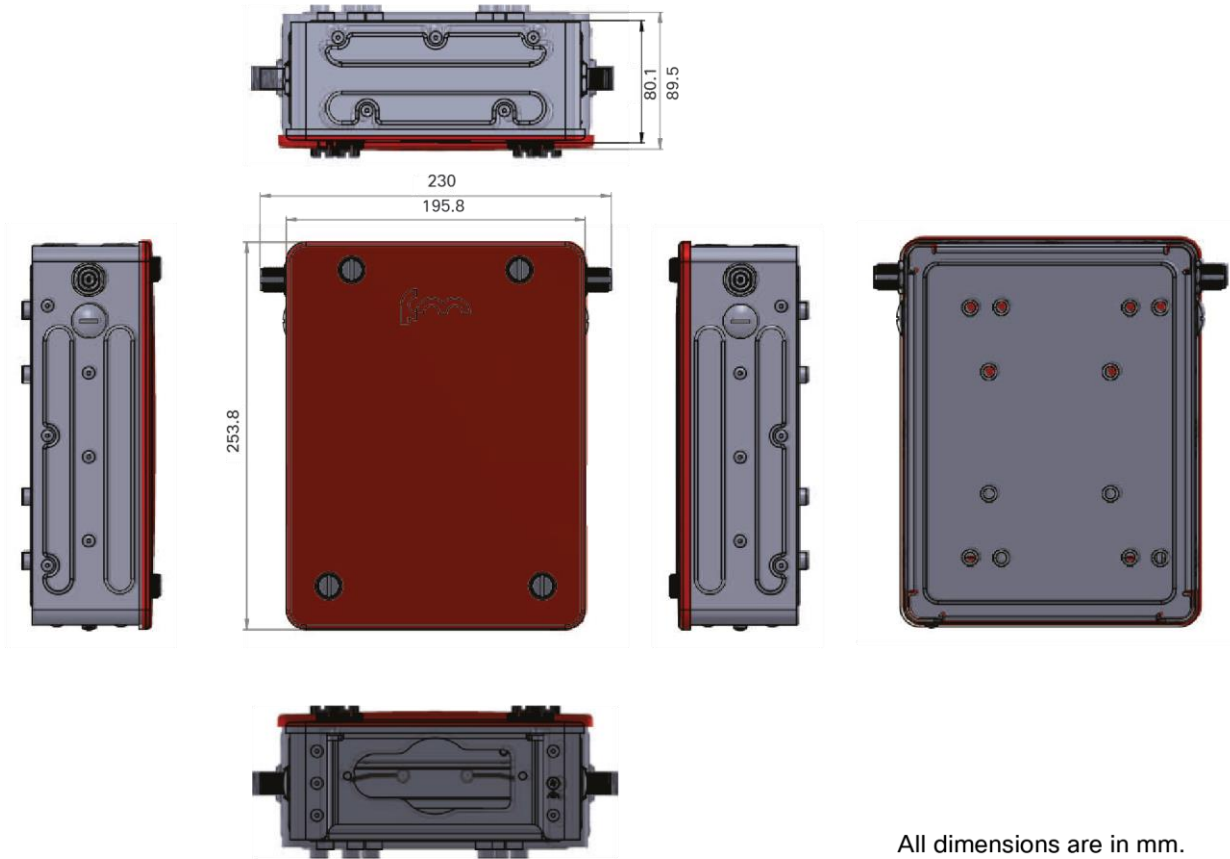
Features

FM Shield Bracket was designed and produced according to the highest standards of quality.

- Steel protective enclosure with polycarbonate cover, designed to protect against high-pressure water jets and high-impact loads.
- Proven in high-vibration environments, including dozers, loaders, drills, and haul trucks.
- N-female antenna connectors for easy integration and minimal RF signal loss.
- Designed for installation within automation cabinets or on vehicle hand railings or antenna poles.
- Transparent front panel with self-retaining screws for easy inspection.

Technical information

Supported products	FM3200 Endo, FM3500 Endo, and Fiber, FM4500 Mobi and Fiber
External connectors type	N-female
Grounding pin	Please refer to the installation instructions for proper grounding
Dimensions	W x D x H: 230 x 89.5 x 253.8 mm (9.1 x 3.5 x 10.0 in.) * Leave 10 cm (3.9 in.) on each side for cable installation
Weight	2.8 kg (6.2 lb) without pole-mounting bracket 3.5 kg (7.7 lb) including bracket
Operating temperature	-40° to +70°C (-40° to +158°F)
Coating	1. Salt spray test: 240 hours (NSS standard) 2. Pressurized hot water resistant: 80° C (176° F), 4 to 6 MPa, 120 seconds
Impact resistance	20 inch/pounds
Wind survivability	180 km/h (112 mph)
Mounting options (included)	Wall mount, pole mount



All dimensions are in mm.

Product sustainability

Information about Cisco’s Environmental, Social and Governance (ESG) initiatives and performance is provided in Cisco’s CSR and sustainability [reporting](#).

Table 1. Cisco environmental sustainability information

Sustainability Topic		Reference
General	Information on product-material-content laws and regulations	Materials
	Sustainability Inquiries	Contact: csr_inquiries@cisco.com
Material	Product packaging weight and materials	Contact: environment@cisco.com
	Physical dimensions	Table: Technical specifications

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