

# IP6x COTS Enclosure Recommendations

## Sentrius™ MG100 Gateway

*Application Note*

v1.0

### 1 INTRODUCTION

Based on the Pinnacle 100 socket modem, the Sentrius™ MG100 gateway captures data from any Bluetooth 5 modules or devices and sends it to the cloud via a global low power cellular (LTE-M/NB-IoT) connection. The MG100 seamlessly incorporates a powerful Cortex M4F controller, full Bluetooth 5 connectivity, and dual-mode LTE-M/NB-IoT capabilities – all with full regulatory, network certifications, and End Device carrier approvals.

Some customers may have a need for the MG100 main board to be mounted in an IP6x rated enclosure. In this case, Laird Connectivity has compiled two commercial off-the-shelf (COTS) design recommendations that meet IP6x requirements using readily available components. They are based on a PolyCase enclosure and a Hammond enclosure.

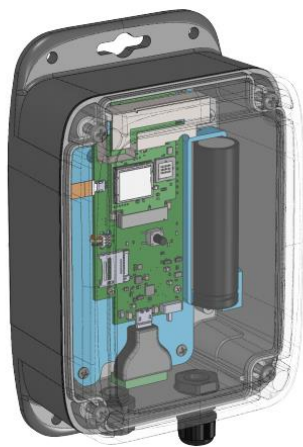


Figure 1: PolyCase enclosure

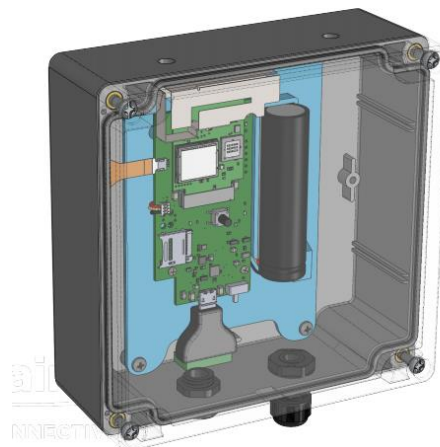


Figure 2: Hammond enclosure

In both cases, they offer a transparent exterior for viewing internal LEDs and are available from multiple distributors. In these design recommendation guides, Laird Connectivity provides a full exploded view of the required hardware to mount the MG100 internally to the enclosures, as well as modification considerations, placement of cable gland and vent locations, and how to connect antennas, USB, cables, and external antennas. They also include detailed technical drawings, as well as CAD drawings to assist with your design.

For more information, see the packaged design recommendation files linked below:

- [MG100 Recommendation for COTS Housing – PolyCase Enclosure](#)
- [MG100 Recommendation for COTS Housing – Hammond Enclosure](#)

### 2 REVISION HISTORY

Version	Date	Notes	Approver
1.0	23 June 2021	Initial Release	Jonathan Kaye