



## Sierra Wireless® GPRM1 & HPRM1 Mobile Radio

### Simplified Integration of Mobile Radio Module MRM into Cab Radio and ETCS Data Only Radio

#### KEY BENEFITS

- Reduce development complexity with the leading MRM: widely deployed, proven track record with extensive experience on the field
- Reduce the need for additional space and cooling with extended temperature range tolerance
- Ensure quality of service and effective diagnostics with internal traces available
- Partner with a company that has a proven track record and commitment to the railway industry

#### APPLICATIONS

Train signaling and control systems

- Train-to-Train and Track-to-Train data communications
- EDOR (ETCS Data Only Radio)

Private network communications for railway personnel

- Voice services with priority control
- Emergency call services
- Voice group calls and broadcast system
- Ground to train communications
- Track-side communications (maintenance)
- General personnel communications
- Train shunting operation

The Sierra Wireless® GRPM1 is an 8W GPRS/EDGE module that delivers rugged performance and features that support mission-critical data and voice communications for cab radios.

The HPRM1 features extensive built-in radio-blocking to eliminate unwanted emissions from commercial cellular networks, even under the most severe channel interference conditions.

#### SIMPLIFY INTEGRATION AND DEVELOPMENT

Reduce your development complexity and speed up time to market with a fully-certified mobile radio module, approved through Inter-Operability Tests (IOT) on all GSM-R networks around the world. Ensure quality of service with easy retrieval of trace information from modules for diagnostics or to confirm correct performance.

Reduce the need for additional space and cooling systems with rugged, RoHS-compliant modules that perform reliably under challenging mobile conditions and a wide range of temperatures.

Maximize your investment in existing solutions with modules that maintain compatibility with previous generations of product.

Sierra Wireless engineers have extensive experience with GSM-R solution needs. Our engineers have established Sierra Wireless GSM-R terminals as the market reference for railway operations system requirements.

#### WORK WITH AN ESTABLISHED PARTNER

Sierra Wireless is the global leader in wireless, machine-to-machine (M2M) transportation solutions. With the addition of GSM-R products, Sierra Wireless brings the broadest portfolio of wireless technologies to the railway industry.

	Specifications
GSM-R FEATURES	ASCI (Advanced Speech Call Items) VGCS (Voice Group Call Service) VBS (Voice Broadcast Service) REC (Railway Emergency Call) eMLPP (Multi-Level Precedence and Pre-emption Service) EIRENE (European Integrated Railway Radio Enhanced Network) Functional addressing Shunting mode Call confirmation Packet data switch
DATA SPEED	Peak download rate: up to 236.8kbps on radio link Peak upload rate: up to 118.4 kbps on radio link Serial Link up to 115.2kbps
FREQUENCY BANDS	GSM 900 GSM 1800 variant available on GPRM1 (no GSM 900, no GSM-R in this variant) GSM-R: 873 - 915 MHz for uplink, 918 - 960 MHz for downlink on HPRM1. 876 - 915 MHz for uplink, 921 - 960 MHz for downlink for GPRM1
APPROVALS	Regulatory: CE, RoHS Carrier & Railway: On demand IP Class: IP41 Compliant to ETSI 102933 v1.3.1 & v2.1.1
PERFORMANCE	Enhanced blocking (HPRM1) Power: 8W
TEMPERATURE RANGE	-25 to 82,5°C
INTERFACES	Ethernet: 2 RS232: 2 RS422: 1 (GPRM1) USB : 1 (HPRM1) SD : 1 (HPRM1)
EMBEDDED SIM	GPRS Class 10 / EDGE
DEVICE DIMENSIONS	Designed for rack mounting in standard 19"/482.6 mm rack as specified in NF C 20-152, HD 493-3, IEC 297-3 and DIN 41494 part 5: Thickness 8 TE Height = Type 3U Euronorm Depth = Type Euronorm 160mm
APPROVALS	Regulatory: CE, RoHS Carrier and Railway: as needed
WEIGHT	1,8kg

**About Sierra Wireless**

Sierra Wireless is building the Internet of Things with intelligent wireless solutions that empower organizations to innovate in the connected world. We offer the industry's most comprehensive portfolio of 2G, 3G, and 4G embedded modules and gateways, seamlessly integrated with our secure cloud and connectivity services. OEMs and enterprises worldwide trust our innovative solutions to get their connected products and services to market faster.

For more information, visit [www.sierrawireless.com](http://www.sierrawireless.com).