HARTING MICA® RF-R300 Complete RFID Starter Kit

Advantages

- All hardware and software components included to start your industrial asset tracking application in under 10min
- Built and Tested in accordance to industry transportation standards for the harshest conditions
- Embedded non-proprietary vendor agnostic, open dynamic, scalable future proof middleware software stack architecture
- Robust, adaptable, upgradeable hardware
- IP-rated Industrial connectors
- Power over Ethernet 48 V PoE or 12/24 V DC for quick network deployment
- Integration of IP and non-IP devices creating an open best of breed architecture at the edge level

General description

- MICA Ha-VIS RF-R3x0 is an extremely robust IoT edge computer hardware/software that is engineered and designed to meet the standards, and requirements for critical infrastructures in Data Centers, Automation, Oil & Gas, Industrial Automation, Facilities, and Healthcare environments. MICA is tested in accordance to IP67 EN 50 155 standards providing a modular world class hardware chassis.
- MICA hardware components are carefully engineered for an extensive life cycle in critical and harsh environments where reliability and uptime are crucial.
- The modular software design of the new reader gives HARTING the ability to support various communications protocols such as LLRP, OPC UA, or even the implementation of a very powerful middleware functionality based on ALE 1.1 standard of the GS1 ®. In addition, customer-specific variants can be supplied.
- MICA modular hardware and software design enables IoT architects, Integrators, development engineers and end-users, to unleash their systems potential. This is accomplished through a powerful blend of a web-based non-proprietary open source architecture.
- MICA applications include, Asset Tracking, Condition Monitoring/Control, and System Integration-Digital Retro-fits/migrations of proprietary protocols.

Technical characteristics (RF-R300)

Transponder protocol	EPC Class 1 Gen2 (ISO 18000-6c)
UHF RFID antenna interface	
Antenna connection	2 x RP-TNC connector (50 Ohm); reader internally multiplexed
Output power	max. 0.5 W
Frequency range	865 … 928 MHz (region configurable)
Interfaces	Ethernet (TCP/IP) 10/100 Mbit/s; Full Spec. 802.3
Diagnosis (LED)	3 LEDs to visualize the device and antenna status
Inputs / Outputs	up to 8 configurable IOs (12 / 24 V)
Performance	
Bulk-reading capability	up to 100 transponders/s
Max. reading distance	up to 5 meters, related to the transponder type and environmental conditions
Protocol	RF-R300: LLRP (Low Level Reader Protocol, worldwide standardized) RF-R310: OPC UA according to OPC Unified Architecture for AutoID Companion specification RF-R320: Modbus/TCP for an easy PLC connection RF-R350: Embedded middleware functionality based on the GS1 ® ALE 1.1 standard – Web services – http telegrams – TCP telegrams – UDP telegrams – MySQL database support – MQTT
Power supply	
Power supply	24 V DC (± 5 %) / Power over Ethernet (PoE)
Current consumption	max. 500 mA
Operating system	Linux (Kernel 3.x.x)
System performance	1 GHz ARM processor 1 GB RAM 4 GB eMMC up to 32 GB flash (via Micro SD Card)

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Technical characteristics (RF-R300)

Design features

Material of housing	aluminum
Dimensions (W x H x D)	132 x 104 x 35 mm
Installation on DIN rail	DIN rail mounting kit (optional Accessories)

Environmental conditions

Operating temperature	-40 °C … +55 °C
Storage temperature	-40 °C … +85 °C
Relative humidity	5 % … 95 % (non-condensing)
Vibration	EN 60 068-2-6 10 Hz to 150 Hz: 0.075 mm / 1g
Shock	EN 60 068-2-27 Acceleration: 30 g
Protection class	IP67

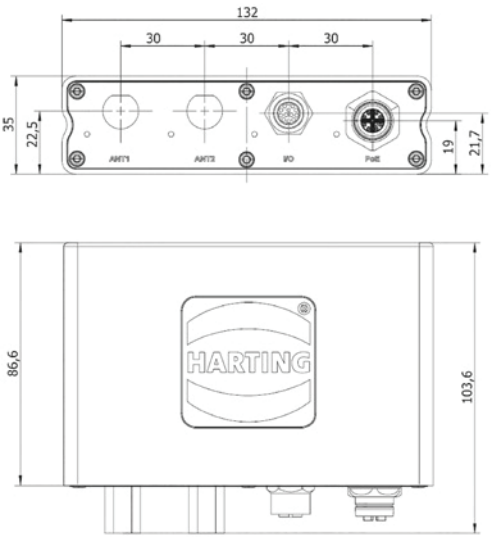
Standards and Certifications

Radio license	EN 302 208 FCC 47 FCR Part 15 IC RSS-GEN, RSS-210
EMC	EN 301 489
Low voltage	EN 60 950
Human exposure	EN 50 364
RoHS compliant	

EMC	EN 50 121-3-2
Vibration	EN 61 373 Cat. 1B
Shock	EN 61 373 Cat. 1B
Wet heat (cyclic)	EN 50 155 / EN 60 068-2-30
Fire protection	EN 45 545-2

Description	Part number
HARTING MICA RF-R300 Complete RFID Starter Kit	73460000006
Kit Components:	
Ha-VIS RFID RF-R300 EU/FCC	20911051101
LOCFIELD RP-TNC, FCC	2093620120030
Ha-VIS Coax N/TNC-RP, H155 PVC, 3m	20932040131
Ha-VIS RF-ANT-WR24-i-US	0932010504
M12 X coded PushPull cable assembly,1m	09488223756010
M12 Cable Assembly A-cod st/- m/- 1,0m	21348400C79010
Ha-VIS RFID FT 92 on metal VPE	20926413792
Ha-VIS RFID FT 89 small (NT) VPE	20926410802
Ha-VIS RFID FT 89 (NT) VPE	20926410702
12V, 1A Power Supply	

Drawing — Dimensions in mm



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