

CPR303-A

Principle of operation.

CPR303-A device is intended to use as interrogator for UHF RFID system for access control or industrial automation. Device intended to use primary in couple with the passive tags complying with ISO 18000-6b, ISO 18000-6c, EPC Global UHF Gen 2 and EM Marine proprietary standards.

Device consist of RF transmitter section and RF receiver section.

Transmitter section radiates RF power in the UHF ISM frequency band with narrow band modulation within 200 kHz bandwidth and receiver section receives signal in the same frequency as transmitter radiates within same frequency channel.

Device has three assembling variants for operation in the different frequency bands :

Mod "EU" - 865-868 MHz , must comply to ETSI EN-300-220-1, EN-302-208-1

Mod "KR" - 908-915 MHz must comply to

Mod "US" : 902-928 MHz must comply to FCC Part 15 regulation documents.

Devices mod "EU" has hardware difference from "KR"/"US" modification and can not be switched to operate in another mode. But devices of modes "KR" and "US" can be reconfigured one to another by firmware changes.

CPR303-A intended to use in standalone operation with one time pre-configuration.

CPR303-A has internal build-in 6dBi gain antenna. Transmitter and receiver sections of device shares the same antenna for normal operation. As option , receiver section can be switched to employ additional external antenna for better operation. For this mode of operation it is needed to soldering a coaxial jumper cable inside of device and connection of a one more standalone antenna.

Device has auxiliary input signal to control an intended transmission , so to avoid continuous radiation of RF power CPR303-A must be configured to using of this signal to start radiation of RF power.

Device also has electrically decoupled pair of connector , used to control external executive mechanism like gate motor or door lock.

To operate in a slave mode under host PC control CPR303-A has 10Base-T Ethernet , EIA-485 networks or EIA-232 point-to-point connectivity.

Environment condition for CPR303-A normal operation:

Operating Temperature	: -20°C to 70°C
Environmental Protection	: IP53
Power supply	: 24 V DC any polarity.