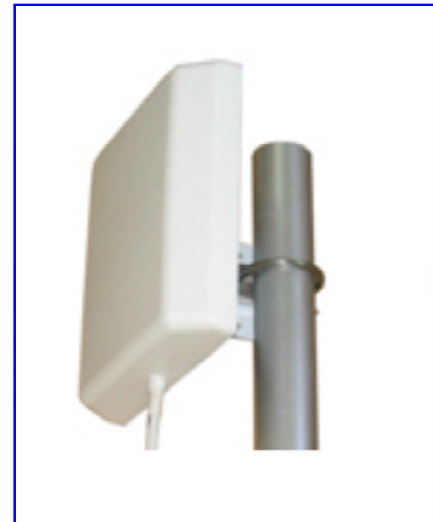# EM-6143 UHF Reader

Swatch Group EM-6143 Reader is a fully integrated, self contained 902~928MHZ wireless indentification reader. It includes a radio frequency(RF) module, digital signal processor, power supply, antenna, I/O ports, and serial communications interface. The reader is idea for parking, security access vehicle registration/identification, and mCommerce applications with a requirement to read EM-4222 tags, windshield sticker, paper labels.

The EM-6143 Reader is configurable to read EM-4222 tags with 64-bit tag ID protocol, as well as tags compliant with International Organization for Standardization (ISO) and ATA standards. It can read tags formatted to a wide range of industry-standard formats, including Wiegand format. Custom Wiegand 26-bit to 34-bit formats can be developed to match identification card formats used by existing security systems.

The EM-6143 Reader transmits an RF signal that is reflected back from an RF tag. The EM-6143 Reader than decodes the tag data carried by the reflected signal. The system transmits this data to local host computer for processing. In multi-lane applications, if necessary, the readers can be synchronized using external hardware to allow operation in close proximity.

The unit has a weatherproof enclosure and is supplied with a pole mount bracket specifically designed for controlled traffic lanes. The EM-6143 Reader is quickly and easily installed and tested by trained authorized personnel. Installation, operation, and maintenance training for EM-6143 is available through Swatch Group's local distributor.

Specifications

Frequency Range	Antenna Gain	Input Power	Output Power
902~928MHZ, FHSS	7 dBi to 9.5 dBi available	220VAC/50Hz	1 W maximum to 200 mW minimum

RF Control	I/O Control
By sense input or host command	Input : two independent dry contact closures for sense circuits. Output : two independent Form-C contacts

Reading Distance
Read performance varies depending on tag and reader configuration and environment. Optimum read range using the EM-4222 Windshield sticker Label is 3.7m to 5m. Typical read range should be 4.7m to 6.5m.

Dimensions	Mounting Location	Enclosure	Humidity
Size : 250mmL x 170mmW x 45mmD	Pole or wall mount	Indoor or outdoor	100% condensing

Operating Air Temperature	Communications Interface
-20C to 70C	RS-232 with wiegand or RS-422 with Wiegand-compatible host interface

Options
Cable Accessory Kits:Cable Accessory Kits allow flexibility in installation the EM-6143 Reader. Part no. 2112
Wall Mount Bracket :Allows adjustment in all planes when used to install the EM-6143 reader on a flat surface.Part no. 2143