EDGE-50 TCP/IP UHF Reader

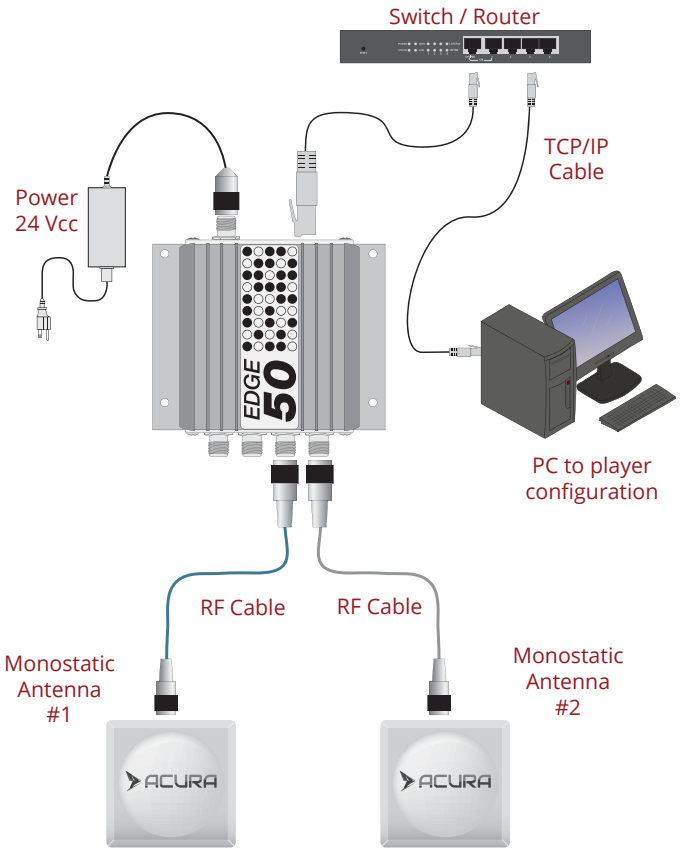
ACURA

Purchase Code: 100.255

Resources

The EDGE-50 TCP/IP is a RFID UHF Reader with small dimensions and great performance. It is based on the module M6e, which allows up to 4 mono-static antennas and custom software development using a free SDK available in C, .NET and Java. It communicates via Ethernet TCP/IP and/or USB.

General Diagram



Rev. A.0

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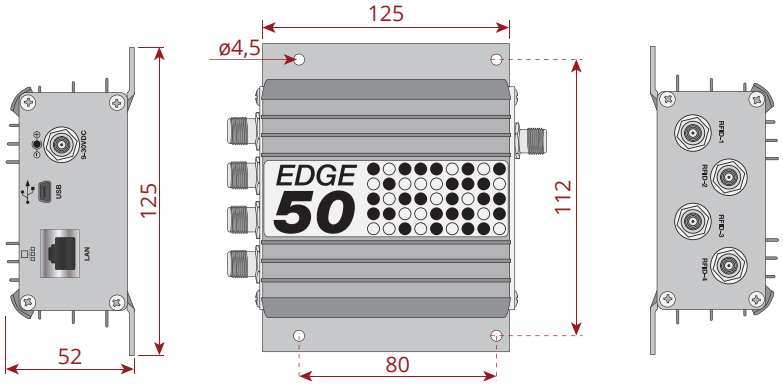
Dimensions [mm]



Technical Specifications

Transponder Protocols

Protocols	ARTEFATO PA SJ5511 v.1.0[1] SINIAV G0 v.1.0.0[1] BRASIL-ID P63[1] EPC Gen2 (ISO 18000-6C) ISO 18000-6B

Custom commands implemented

Artefato PA SJ5511 Protocol	Activate_Secure_Mode Authenticate_OBU
Siniav G0 Protocol	Activate_SINIAV_Mode OBU_Auth_ID OBU_Auth_Full_Pass1 OBU_Auth_Full_Pass2 OBU_Auth_Full_Pass (Pass1 + Pass2) OBU_ReadFromMemMap OBU_WriteToMemMap
Brasil-ID P63 Protocol	ReadSec WriteSec
EPC Gen2 (ISO 18000-6C)	All required commands (Read, Write, Lock, ReadMemBlock, WriteMemBlock, etc)

RF Interface

RF Power Output	Separate read and write levels, command adjustable from 5 to 30 dBm (1W) with ±0.5 dBm accuracy above +15 dBm2[2]
Regulatory	Pre-configured for the following regions: ANATEL (BR) 902 - 907 MHz and 915 - 928 MHz FCC (NA) 902 - 928 MHz ETSI (EU, IN) 865,6 - 867,6 MHz
Mode	Frequency Hopping or Fixed Frequency (Configurable frequency table)
RF Modulation	PR-ASK
RF Encoding	FM0, Miller M2, M4 and M8
Backscatter Link Frequency (BLF)	250 kHz, 320 kHz and 640 kHz

Performance

Max Read Rate	Up to 750 tags/second using high-performance settings
Max Tag Read distance	Over 30 feet (9 m) with 12.5 dBi antenna (36dBm EIRP)[3]

Control / Data Interface

Conectors	**Power:** Power Jack 2,5 mm **Communication:** RJ45 and USB Mini B **Antenna:** TNC 50 Ω connector
Data Communication	**USB Serial:** Type 2.0 Up to 12 Mbps Driver for Windows, Linux does not require driver. **Ethernet:** Data rate: 10/100 Mbps 1.5 kVAC isolated IEEE 802.3 Standard
API support	C#/.Net, Java, C (Include samples, source codes and Demo Software)

Power

DC Power required	DC Voltage: 24 VDC ± 10% Max Ripple: 200 mVpp
DC power consumption @ RF level	Max 15 W @ 30 dBm With maximum duty cycle

Mechanical / Environmental

Water Tightness	IP40 (indoor use only)
Dimensions	125 x 125 x 52 mm
Weight	450 g ±10 g
Operational temp.	-10°C to + 65°C
Storage temperature	-10°C to + 70°C
Humidit	95%
Mounting	Four 4.5 mm holes on the side flaps

[1] Brazil standards for tolling and suply chain applications.

[2] Maximum power may have to be reduced to meet regulatory limits, which specify the combined effect of the module, antenna, cable, etc.

[3] Read distance may vary depending of Tag, antenna and environmental conditions.

Brasil
☎ +55 11 3028-4600
Av. Antártico, 381 - 14º Andar
São Bernardo - SP -09726-150

E-mail: acura@acura.com.br | Site: www.ACURA.com.br

USA
☎ +1-661-236-7056
6 Centerpointe Dr. Suite 700
La Palma, CA - 90623