

Installation Instructions

Original Instructions



Allen-Bradley

by ROCKWELL AUTOMATION

58UHF RFID Long-range Transceiver

Catalog Numbers 58UHF-TR-200-LR50US, 58UHF-TR-200-LR50EU



WARNING: Never disassemble or modify the scanner. Doing so could result in an accident such as fire or electric shock.

Features

- Global Ultra-High Frequency (UHF) RFID solution
 - 865...868 MHz EU and UK model (CE)
 - 902...928 MHz US and North America model (FCC)
- Tag compatibility: ISO 18000-63 (EPC global Gen2) compliant
- Inventory speed up to 500 tags/sec (FCC)
- Sensing range up to 5 m (16.4 ft)
- Built-in status indicators for diagnostics
- All-in-one linear and circular antennas
- Excellent reliability in harsh environments
- EtherNet/IP™ and DLR support

Typical Applications

- Asset tracking
- Data acquisition
- Product handling
- Automotive
- Food and pharmaceutical
- As part of track and trace solution
- Traceability control
- Gate control
- Location control (warehouse)
- Pallet and returnable package management (for sustainability)

Specifications

Attribute	Value
General	
Enclosure rating	IP66/67
Operating temperature [°C (°F)]	-20...+55 (-4...+131)
Storage temperature [°C (°F)]	-40...+85 (-40...+185)
Relative humidity	<ul style="list-style-type: none">• Operating: 35...95%• Storage: 25...85%
Vibration	10 g at 10...500 Hz
Shock resistance [g]	50
Tag compatibility	ISO 18000-63
Sensing distance, max ⁽¹⁾ [m (ft.)]	5 (16.4)
Compliance	FCC, UL, CE, UKCA, and IC
Electrical	
Connector	<ul style="list-style-type: none">• EtherNet/IP: M12 4-pin plug DC micro• Power and I/O: M12 4-pin socket DC micro
Communication systems	EtherNet/IP
Supply voltage	19.2...26.4V DC
Current consumption at 24V DC, max	<ul style="list-style-type: none">• Supply: 1 A CLASS2/SELVS• Input: 15 mA• Output: 0.5 A
Communication rate (host) [kbyte/sec]	0.125
Frequency	<ul style="list-style-type: none">• 865.7...867.5 MHz EU and UK model• 902.75...927.25 MHz US and North America model

(1) The setting limits depend on the country or the function. This reference value can vary depending on the operating environment.

Status Indicator Functionality



Name	Description	State	Indicates
MOD	Indicates status of the transceivers	Off	No power
		Steady green	Device operational
		Flashing green	Standby
		Flashing red	Major recoverable fault
		Steady red	Major nonrecoverable fault
		Flashing green/red	Self-test
Link1/2	Indicates status of Ethernet (E1/E2) port	Off	No link
		Steady green	Link
		Steady yellow	Port disabled
		Flashing green	Port activity
		Flashing yellow	Collision
		Steady red	Major NIC fault
NET	Indicates status of the connections	Off	No power
		Flashing green	No connections
		Steady green	Connected
		Flashing red	Connection timeout
		Steady red	Duplicate IP
		Flashing green/red	Self-test
R/W	Indicates status of the read/write commands	Off	No power
		Steady green	Powered but idle
		Flashing green	Transmitting RF carrier wave - no tags detected
		Steady yellow	Succeeded at tag operation - tag read/write complete
		Flashing yellow	Failed at tag operation - tag read/write incomplete
		Flashing red	RF transmit failure

IMPORTANT

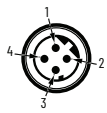
Installation must be in accordance with local and/or national codes. Servicing energized industrial control equipment can be hazardous if not in accordance to recommended safety procedures.



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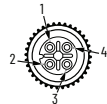
Connector Pinouts

Table 1 - EtherNet/IP ⁽¹⁾

DC M12, D-coded, 4-pin Plug	Pin	Signal	Color
	1	TxDat +	White/orange
	2	Recv Data +	White/green
	3	TxDat -	Orange
	4	Recv Data -	Green

(1) E1 - Standard right-angle Ethernet cables point left.
E2 - Standard right-angle Ethernet cables point right.

Table 2 - Power I/O

DC M12, D-coded, 4-pin Socket	Pin	Signal	Color
	1	+24V DC	Brown
	2	Input	White
	3	0V DC	Blue
	4	Output	Black

FCC Notice (For U.S. Customers)

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter. This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: (1) This device will not cause harmful interference; and (2) this device must accept any interference received, including interference that may cause undesired operation of the device.

Changes and modifications not expressly approved by Rockwell Automation can void your authority to operate this equipment under Federal Communications Commissions rules.

This equipment is tested and found to comply with the limits for a Class A digital device, according to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.



ATTENTION: This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, can cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case you must correct the interference at your own expense.

IMPORTANT

This equipment complies with FCC radiation exposure limits for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines. When you install and operate this equipment, keep a minimum of 90 cm (35.4 in.) between the radiator and a person's body.

ISED Information

This device complies with Innovation, Science and Economic Development Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference; and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

IMPORTANT

This equipment complies with ISED radiation exposure limits for an uncontrolled environment and meets RSS-102 of the ISED radio frequency (RF) Exposure rules. Install and operate this equipment keeping a minimum of 90 cm (35.4 in.) between the radiator and a person's body.

Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non-contrôlé et respecte les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'ISDE. Cet équipement doit être installé et utilisé en gardant une distance de 90 cm (35.4 in.) ou plus entre le radiateur et le corps humain.

Waste Electrical and Electronic Equipment (WEEE)



At the end of life, this equipment should be collected separately from any unsorted municipal waste.





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