

(Preliminary)

UHF RFID Reader/Writer Evaluation Kit Data sheet



1. General Descriptions

UHF RFID Reader/Writer Evaluation Kit includes a reader writer device, a short range antenna, a long range antenna, an interface board, cables.

The reader writer device uses RED4 (Phychips).

This product complies with ISO18000-63(6C) / EPC Gen2.



[Features]

- Optimized antenna design for Murata tag
- FCC / IC / ETSI / Japan Radio law certified device
(FCC ID: VPYLXRF032, IC: 772C-LXRF032, JP: 007-AF0012, CE Mark is acquired)
- Low cost
- Adjustable Tx power: 18dBm ~ 25dBm
(Available Tx power is up to 23dBm under Japan regulation)
- Host interface : UART(reader writer device), USB(Starter kit)
- 100% green material for RoHS compliance
- Included item list

Region	EU	JAPAN	US/Canada
Evaluation Kit	LXRFZZUAAA-029-KIT	LXRFZZUAAA-031-KIT	LXRFZZUAAA-033-KIT
Reader writer	LXRFZZUAAA-027	LXRFZZUAAA-030	LXRFZZUAAA-032
Short Range Antenna	LXRFZZUCCA-037	LXRFZZUCCA-036	LXRFZZUCCA-036
Long Range Antenna	LXRFZZUCCA-035	LXRFZZUCCA-034	LXRFZZUCCA-034
Interface Board	LXRFZZUBBA-042		
Coaxial cable	RP-SMA cable 25cm		
micro B USB cable	micro B USB cable		

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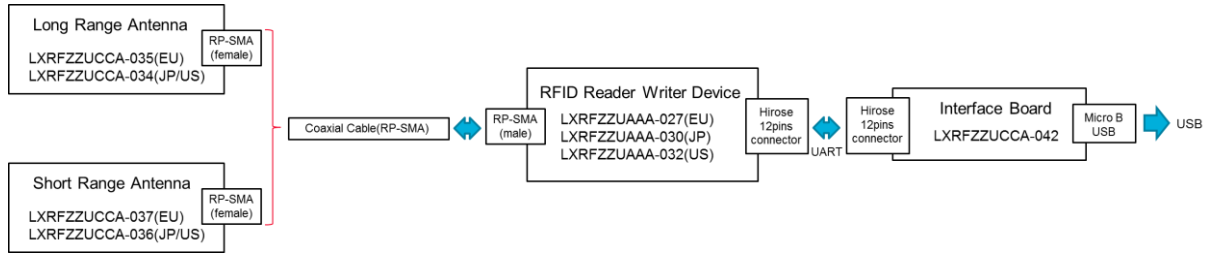
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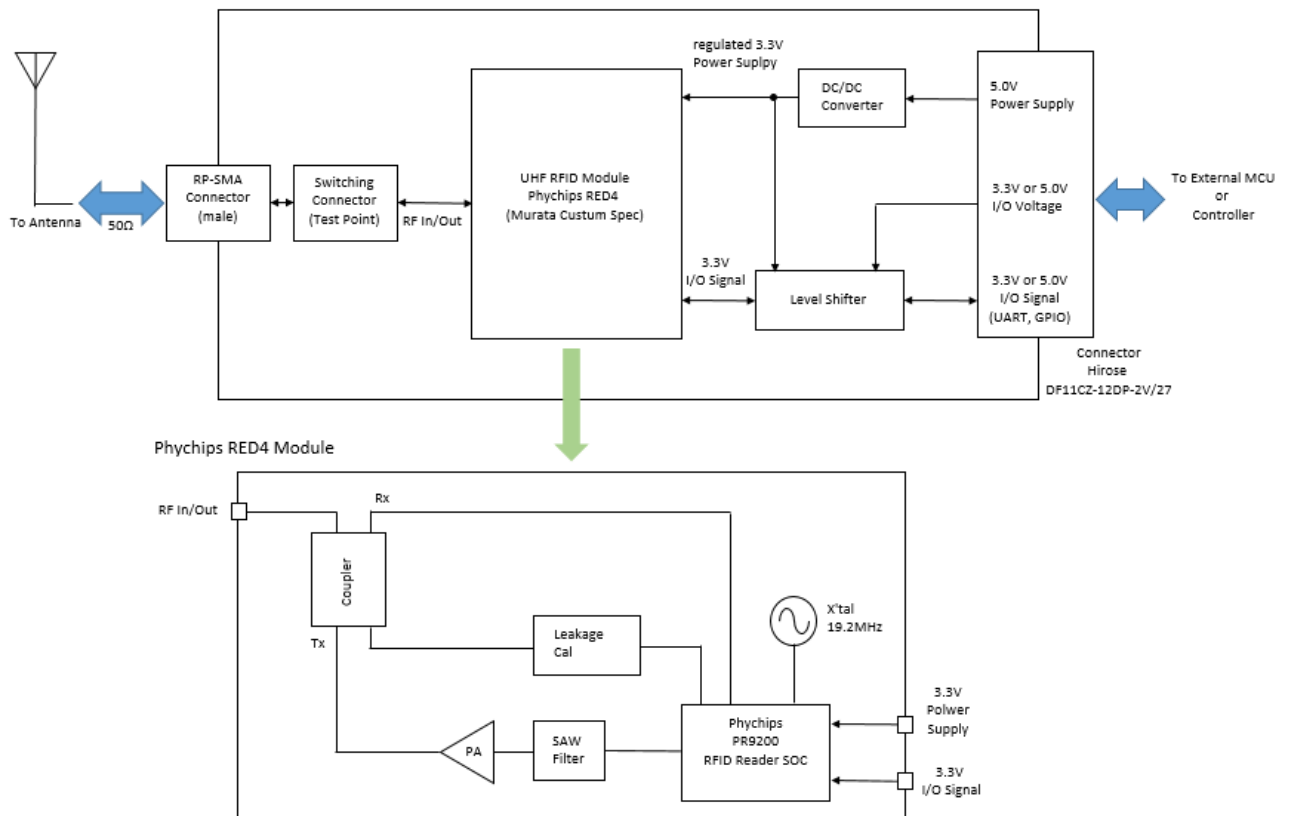


2. Block Diagram

Block Diagram (Evaluation Kit)



Block Diagram (RFID Reader Writer Device)



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3. Mechanical Information

[Dimension]

Please refer the datasheet for detail of dimensions of each item.

(The reader writer device, antennas and interface board).

	Datasheet
Reader writer	LXRFZZUAAA-027_030_032_Datasheet_*.pdf
Short Range Antenna	LXRFZZUCCA-036_037_Datasheet_*.pdf
Long Range Antenna	LXRFZZUCCA-034_035_Datasheet_*.pdf
Interface Board	LXRFZZUBBA-042_Datasheet_*.pdf

4. Characteristics

4-1. Basic configuration

LXRFZZUAAA-027(EU), 030(JP), 032(US) is the UHF RFID reader writer device utilizing RED4 (Phychips).

Please refer the following data sheet for a functional description.

< RED4 data sheet >

RED4_spec_20150916.pdf (UHF RFID Reader/Writer Module Specification)

※In case the data sheet has been updated, please refer the latest version.

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4-2. Ratings

4-2-1. Limiting values

parameter	Symbol	Limiting values		Unit
		Min	Max	
Power Supply Voltage	V _{IN}	-0.3	5.5	V
Maximum current	I _{IN}		500 (TBD)	mA
Storage temperature	T _{STG}	-25	+85	°C

4-2-2. Operation condition

Parameter	Symbol	Min	Typ	Max	Unit
Power Supply Voltage	V _{IN}	4.5	5	5.5	V
Ambient Temperature	T _{amb}	-20	25	+65	°C
I/O Voltage	V _{IO}	3.0		5.5	V

4-3. Electrical Characteristics

Without notice; Ambient Temperature (T_{amb} = +25°C), Operational voltage ranges.

	Parameter	Symbol	Conditions	Min	Typ	Max.	Unit	Remarks
1	Frequency	F		865.70		867.50	MHz	EU
				920.60		923.40	MHz	JP
				902.70		927.25	MHz	US
2	Tx Power	P		18		25	dBm	Available Tx power is up to 23dBm under Japan regulation
3	Spurious	dBm		EU: ETSI EN 302 208 US: FCC 15C JP: ARIB STD-T107				
4	Impedance	Imp			50		ohm	
5	DC Power	V _{cc}		4.5	5	5.5	V	
6	Consumption Current	l _{pd}				1	mA	
		l _{idle}				20	mA	
		l _{act}	Measured at 25dBm with 50ohm load		400			mA

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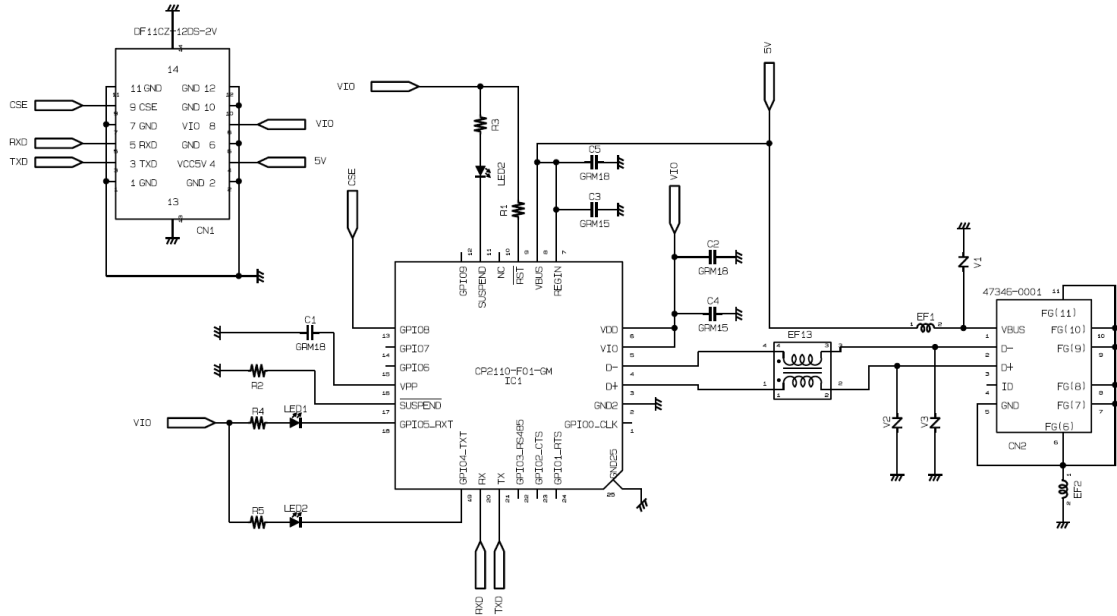
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5. Application Circuit

The circuit of interface board (USB-UART bridge) to control reader/writer device is shown as an example. Using this interface board, you can control R/W device by the PC.

This circuit is available in the evaluation kit.



6. Packaging

TBD

7. Contact window

URL: <http://www.murata.com/products/rfid>

Email: magicstrap@murata.com

For any inquiries/queries, please feel free to contact us.

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NOTICE

1. Storage Conditions:

To avoid damaging, be sure to observe the following points.

- Store products where the ambient temperature is 15 to 35 °C and humidity 45 to 75% RH.
(Packing materials, In particular, may be deformed at the temperature over 40 °C.).
- Store products in non corrosive gas (Cl₂, NH₃, SO₂, NO_x, etc.).
- Stored products should be used within 6 months of receipt.

2. Handling Conditions:

Be careful in handling or transporting products because excessive stress or mechanical shock may break products.



Note:

Please make sure that your product has been evaluated and confirmed against your specifications when our product is applied to your product.

All the items and parameters in this product specification have been prescribed on the premise that our product is used for the purpose, under the condition and in the environment agreed upon between you and us. You are requested not to use our product deviating from such agreement.