

# CF-RU51xx

Cititoare de distanta mare pentru cartele UHF pasive

## Continut



## Descriere

Aceste cititoare UHF de distanta mare pot citi/scrie cartele UHF GEN2 cu cipuri Alien, U-Code, IMPINJ si altele. Se utilizeaza cu precadere in sistemele de control acces auto datorita distantei mari de citire (6-12m) si directionalitatii antenei insa pot fi utilizate si in aplicatii speciale ce necesita citirea rapida si precisa a unui numar mare de cartele simultan: logistica, competitii sportive, securitate pe santiere - evitarea accidentelor datorita unghiurilor de vizibilitate moarte, productie industriala, etc.

## Caracteristici

Suporta cartele/tag-uri cu protocol ISO18000-6B, ISO18000-6C (EPC C1G2)

Banda de frecventa 865.6-867.6MHz, 915-921MHz (consultati lista cu benzile disponibile pentru fiecare tara in parte din ANEXA 1)

Frecventa fixa sau saritoare (FHSS)

Putere de emisie pana la 30dbm (ajustabila)

SUporta functionare automata, interactiva sau declasanta

Putere disipata mica, alimentare la 9Vcc

Suporta interfata Wiegand 26/34, RS232/ RS485, TCP/IP (optional)

## Specificatii

GENERAL	
Alimentare	9Vcc (-10%/+25%)
Consum	3~7.8W (350~650mA)
Suport	Prindere pilon, inclus
Distanta citire	CHA-UR5106 - 5m / CHA-5112 - 10m
Cartele suportate	ISO18000-6B, ISO18000-6C (EPC C1G2) pasive (866MHz) IDC-1001UHF-GEN2
Comunicatie	RS232 (programare), RS485, Wiegand, TCP/IP (optional)
Frecventa	Fixa / Saritoare (FHSS)
Banda frecventa	865-868MHz, 902-927MHz (ajustabila - <b>consultati ANEXA 1</b> )
Putere emisie / antena	30dBm / 8dBi/12dBi (putere ajustabila - <b>consultati ANEXA 2</b> )
Rezistenta la intemperii	IP65
Software	Software programare, SDK, documentatie
Dimensiuni	225(L) x 225(H) x 40(A) mm / 445(L) x 445(H) x 55(A) mm
Material / Masa bruta	ABS+Metal / 1.5kg
Conditii de depozitare	-20°C ~ +75°C / 0-95% UR (fara condensare)
Conditii de operare	-10°C ~ +55°C / 0-95% UR (fara condensare)
Certificate	CE, FCC

\* Distanta de citire depinde de antena, tipul cartelei, mediul de instalare si reglementarile de putere admise

## Conexiuni electrice

Rosu	Alimentare +9Vcc
Negru	GND
Galben	Wiegand DATA 0
Albastru	Wiegand DATA 1
Mov	RS485 R+
Portocaliu	PS485 R-
Maro	GND
Alb	RS232 RXD
Verde	RS232 TXD
Gri	Intrare declasare (trigger input) TTL level

## ATENITIE!

**Inainte de utilizare configurati frecventa de lucru si puterea de emisie conform cu reglementarile statului in care se face instalarea. Consultati ANEXA 1 pentru detaliile specifice fiecarei tari.**

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Programarea cititoarelor UHF de mare distanta  
CHA-UR5106 / CHA-UR5112

## Introducere

Cartelele UHF contin 4 sectoare ce pot fi citite/scrise, parolate, etc. Pentru utilizarea acestor cititoare in sistemele de control acces cu interfete de intrare Wiegand, se recomanda utilizarea sectorului TID al cardului pasiv UHF pentru identificarea utilizatorilor. Acest sector insumeaza un total de 192 biti din care doar 64 de biti sunt unici si reprezinta ID-ul cardului. Deoarece majoritatea sistemelor de control acces suporta interfata de intrare Wiegand 34 (32+2 biti) se utilizeaza 32 de biti din acest cod incepand de la byte-ul 8. (bit 64-95). Mai jos aveti o reprezentare a memoriei unui card UHF.

### Harta memoriei

Bank	Adresa	Descriere
User	00h - 1Fh	Sector definit de utilizator (alterabil)
TID	60h - BFh	Configurare Device
	20h - 5Fh	ID cartela, unic (nealterabil)
	00h - 1Fh	TID EPC/TMD/TMDID/TMN
EPC	20h - 7Fh	EPC # (Electronic Product Code - alterabil)
	10h - 1Fh	EPC-PC
	00h - 0Fh	EPC-CRC
Rezervat	20h - 3Fh	Rezervat - Acces parola, EPC optional
	00h - 1Fh	Rezervat - Distrugere parola

## Setare parametrilor

Setarea parametrilor de functionare a cititoarelor UHF se realizeaza prin intermediul software-ului inclus utilizand o conexiune seriala RS232 sau TCP/IP (doar la modelele "-T") cu cititorul. Mai jos gasiti descrierea catorva din parametri ajustabili:

Adress (HEX) - adresa cititorului (RS485)

Power - puterea de emisie, ajusteaza distanta de citire (30 max)

Dminxfre/Dmaxfre - interval frecvente

FreqBand - banda de frecventa utilizata (modifica gama de frezvente disponibila la Dmin/maxfre) - vezi ANEXA 1

Dminxfre/Dmaxfre - interval frecvente functionare (diferit pe fiecare cititor daca sunt mai multe cititoare in apropiere)

Single Freq - fixeaza echipamentul pe o singura frecventa (RECOMANDAT)

Wiegand 26/34 - mod iesire interfata Wiegand

Work mode - Active mode (citire automata)

Single Tag Filtering Time - intervalul dintre doua citiri consecutive ale aceluasi card

First byte address - adresa primului byte din cod (08)

**ATENTIE:** La conectarea cititorului la sistemul de control acces prin interfata Wiegand, este necesara si conectarea firului GND.

The screenshot shows the 'UHFReader18 Demo Software v2.6' interface. The 'Reader Parameter' tab is active. Key settings include:

- Communication:** Com selected, COM Port: AUTC, Reader Address: FF.
- Reader Information:** Type: UHFReader18, Version: 03.63, Power: 30, Dminxfre: 902.6MHz, Dmaxfre: 902.6MHz.
- Set Reader Parameter:** Address(HEX): 00, Baud: 57600bps, Power: 30, Max InventoryScanTime: 10\*100ms.
- Set Work Mode Parameter:** Wiegand3 selected, Wiegand output MSB first selected, Work Mode: Active mode, Single Tag Filtering Time: 0\*1s, First Byte Addr(Hex): 08.
- Relay:** 1 and 2 set to Release.

Annotations in the image include red circles around 'Wiegand3', 'Wiegand output MSB first', 'EPCC1-G2', 'Active mode', 'Byte Addr', and 'Set'. A green circle highlights the 'Wiegand' options, with a green arrow pointing to 'SetWGPParameter'. A red arrow points to the 'Set' button.

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ANEXA 1 - Starea de reglementare pentru utilizarea RFID în GEN2 EPC (860-960 MHz), bandă a spectrului UHF

TARA	Status	Frecventa in MHz	Putere	Tehnica	Comentarii	Autoritate reglementatoare
Austria	OK	865.6 - 687.6	2 W ERP	ETSI		Communication Authority Austria +43 1 58058-0 rtr@rtr.at www.rtr.at
Belgium	OK	865.6 - 867.6	2 W ERP	ETSI		Institut belge des services postaux et des télécommunications - IBPT +32 2 226 8888 info@bipt.be eric.van.heesvelde@bipt.be www.bipt.be
Bulgaria	OK	865.6 - 867.6	2 W ERP	ETSI		Communications Regulation Commission (CRC) +359 2 949 2418 chairman@crc.bg www.crc.bg
Croatia	OK	865.6 - 867.6	2 W ERP	ETSI		Croatian Telecommunications Agency +385 1 489 6000 info@telekom.hr www.telekom.hr
Cyprus	OK	865.6 - 867.6	2 W ERP	ETSI		Office of the Commissioner of Telecommunications and Postal Regulation +357 2269 3000 info@octpr.org.cy www.octpr.org.cy
Czech Republic	OK	865.6 - 867.6	2 W ERP	ETSI		Czech Telecommunication Office +420 224 004 704 info@ctu.cz www.ctu.cz
Denmark	OK	865.6 - 867.6	2 W ERP	ETSI		Danish Business Authority +45 35 29 10 00 erst@erst.dk http://www.erhvervsstyrelsen.dk/tele/0/3
		915 - 921	4 W ERP			
Estonia	OK	865.6 - 867.6	2 W ERP	ETSI		Estonian National Communications Board (ENCB) +372 693 1154 postbox@sa.ee www.sa.ee
		915 - 921	4 W ERP			
Finland	OK	865.6 - 867.6	2 W ERP	ETSI		Finnish Communications Regulatory Authority (FICORA) +358 9 6966 1 info@ficora.fi www.ficora.fi
France	OK	865.6 - 867.6	2 W ERP	ETSI		Autorité de Régulation des Communications électroniques et des Postes (ARCEP) +33 1 4047 7010 courrier@arcep.fr www.arcep.fr
Germany	OK	865.6 - 867.6	2 W ERP	ETSI		Federal Network Agency for Electricity, Gas, Telecommunication, Post and Railway +49 6131 18 0 poststelle@bnetza.de www.bundesnetzagentur.de
Greece	OK	865.6 - 867.6	2 W ERP	ETSI		National Telecommunications and Posts Commission (EETT) +30 210 615 1000 info@eett.gr www.eett.gr
Hungary	OK	865.6 - 867.6	2 W ERP	ETSI		National Communications Authority, Hungary (NCAH) +36 1 457 7488 gulyas.robert@nhh.hu www.nhh.hu
		915 - 921	4 W ERP			

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ANEXA 1 - Starea de reglementare pentru utilizarea RFID în GEN2 EPC (860-960 MHz), bandă a spectrului UHF -CONTINUARE

TARA	Status	Frecventa in MHz	Putere	Tehnica	Comentarii	Autoritate reglementatoare
Iceland	OK	865.6 - 867.6	2 W ERP	ETSI		Post and Telecom Administration +354 510 1500 pta@pta.is www.pta.is
Ireland	OK	865.6 - 867.6	2 W ERP	ETSI		Commission for Communications Regulation +353 1 804 9619
		915 - 921	4 W ERP			
Italy	OK	865.6 - 867.6	2 W ERP	ETSI		Autorità per le Garanzie nelle Comunicazioni (AGCOM) +39 081 7507111 info@agcom.it www.agcom.it
Latvia	OK	865.6 - 867.6	2 W ERP	LBT		Public Utilities Regulatory Commission +371 709 7200 sprk@sprk.gov.lv www.sprk.gov.lv
Liechtenstein	OK	865.6 - 867.6	2 W ERP	ETSI	918-921 MHz rezervat pentru protectie ER-GSM	Office for Communications www.ak.llv.li
		915 - 918	4 W ERP	ETSI limitat		
Lithuania	OK	865.6 - 867.6	2 W ERP	ETSI	Necesita licenta individuala	Communications Regulatory Authority +370 5 210 5684 rrt@rrt.lt www.rrt.lt
Luxembourg	OK	865.6 - 867.6	2 W ERP	ETSI		Institut Luxembourgeois de Régulation (ILR) +352 4588 4529 ilr@ilr.lu www.ilr.lu
		915 - 921	4 W ERP			
Moldova	OK	865.6 - 867.6	2 W ERP	ETSI		National Regulatory Agency in Telecommunications and Informatics +373 22 251317
		915 - 921	4 W ERP			
Netherlands	OK	865.6 - 867.6	2 W ERP	ETSI		Radio Communications Agency Netherlands +31(0)50-5877400 agentschaptelecom@at-ez.nl www.agentschap-telecom.nl
Norway	OK	865.6 - 867.6	2 W ERP	ETSI		Norwegian Post and Telecommunications Authority (NPTA) +47 22 824600 willy.jensen@npt.no www.npt.no
		915 - 921	4 W ERP			
Poland	OK	865.6 - 867.6	2 W ERP	ETSI		Office of Electronic Communications +48 22 534 9156 uke@uke.gov.pl www.uke.gov.pl
Portugal	OK	865.6 - 867.6	2 W ERP	ETSI		ICP - Autoridade Nacional de Comunicações (ANACOM) +351 21 721 1000 mailto:miguel.capela@anacom.pt www.anacom.pt
Romania	OK	865.6 - 867.6	2 W ERP	ETSI	RO-IR 11-05 RO-IR 11-06	National Regulatory Authority for Communications (ANRC) +40 21 3075 400 anrcti@anrcti.ro www.anrcti.ro
		867,6 - 868	500mW ERP			
Serbia	OK	865.6 - 867.6	2 W ERP	ETSI		Federal Ministry of Transport and Telecommunications +381 11 3114855 mintel@gov.yu

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ANEXA 1 - Starea de reglementare pentru utilizarea RFID în GEN2 EPC (860-960 MHz), bandă a spectrului UHF - CONTINUARE

TARA	Status	Frecventa in MHz	Putere	Tehnica	Comentarii	Autoritate reglementatoare
Slovak Republic	OK	865.6 - 867.6	2 W ERP	ETSI		Telecommunications Office of the Slovak Republic +421 2 5788 1553 secretary@teleoff.gov.sk frequency@teleoff.gov.sk
Slovenia	OK	865.6 - 867.6	2 W ERP	ETSI		Post and Electronic Communications Agenca of the Republic of Slovenia +386 1 583 6300 info.box@apek.si www.apek.si
		915 - 921	4 W ERP			
Spain	OK	865.6 - 867.6	2 W ERP	ETSI		Secretaría de Estado de Telecomunicaciones y para la Sociedad de la Información Juan Cañas +34 91 346 15 35 jcanas@minetur.es
Sweden	OK	865.6 - 867.6	2 W ERP	ETSI	Scutit de norme de licență 2006/804/EG	Post- och telestyrelsen (PTS) +46 8 678 55 00 pts@pts.se www.pts.se
Switzerland	OK	865.6 - 867.6	2 W ERP	ETSI	918-921 MHz rezervat pentru protectie ER-GSM	Office fédéral de la communication (OFCOM) +41 32 327 5511 ir@bakom.admin.ch www.bakom.ch
		915 - 918	4 W ERP	ETSI limitat		
United Kingdom	OK	865.6 - 867.6	2 W ERP	ETSI		Office of Communications - Ofcom +44 20 7981 3000 contact@ofcom.org.uk www.ofcom.org.uk
		915 - 921	4 W ERP			

\* NEUTILIZAREA FRECVENȚEI SI PUTERII DE EMISIE ADMISE SPECIFICE TARII IN CARE SE UTILIZEAZA ECHIPAMENTUL ATRAGE SANCTIUNI DIN PARTEA STATULUI RESPECTIV.

ANEXA 2 - Relatia dintre puterea emisa si cea radiata

Putere (dBm)	Putere (W)	ERP (8dBi)	ERP (12dBi)	Putere (dBm)	Putere (W)	ERP (8dBi)	ERP (12dBi)
1	0.0013	0.0048	0.0122	16	0.0398	0.1531	0.3846
2	0.0016	0.0061	0.0153	17	0.0501	0.1928	0.4842
3	0.0020	0.0077	0.0193	18	0.0631	0.2427	0.6095
4	0.0025	0.0097	0.0243	19	0.0794	0.3055	0.7674
5	0.0032	0.0122	0.0305	20	0.1000	0.3846	0.9661
6	0.0040	0.0153	0.0385	21	0.1259	0.4842	1.2162
7	0.0050	0.0193	0.0484	22	0.1585	0.6095	1.5311
8	0.0063	0.0243	0.0610	23	0.1995	0.7674	1.9275
9	0.0079	0.0305	0.0767	24	0.2512	0.9661	2.4266
10	0.0100	0.0385	0.0966	25	0.3162	1.2162	3.0549
11	0.0126	0.0484	0.1216	26	0.3981	1.5311	3.8459
12	0.0158	0.0610	0.1531	27	0.5012	1.9275	4.8417
13	0.0200	0.0767	0.1928	28	0.6310	2.4266	6.0954
14	0.0251	0.0966	0.2427	29	0.7943	3.0549	7.6736
15	0.0316	0.1216	0.3055	30	1.0000	3.8459	9.6605

ANEXA 3 - Referinte

DIRECTIVA 2014/53/EU  
ETSI EN 300 440  
ETSI EN 302 208-1  
DIRECTIVA 2006/804/CE  
ERC/REC 70-03  
RO-IR 11-05  
RO-IR 11-06

dBm - decibel-miliwatt (decibeli relativ la un miliwatt)  
dBi - decibel isotropic (castigul antenei fata de antena isotropica ipotetica)  
ERP - putere radiata efectiva (rezultatul puterii furnizate antenei si castigul relativ al acesteia la dipol semiunda in directia castigului maxim)  
ETSI - European Telecommunications Standards Institute