



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



CALL '2' OPEN USING YOUR MOBILE PHONE

Features

- Ready to operate Straight from the Box!
- O/P Changeover Contact 1.2KW
- 'White List' upto 10 Tel No's
- Signal Strength Indication
- Internal Antenna
- Waterproof Enclosure IP68 (Pressure Washer Proof)
- Accepts all major SIM Cards
- 9-24Vdc Operation
- Optional Battery Backup
- Optional Configuration by SMS Text Messages



Easy Operation

1. User Calls C20
2. C20 Rejects call
3. If valid C20 operates Output

Operation

Call '2' Open provides a relay changeover contact which can operate gates / barriers etc. When C20 receives a telephone call, the relay contacts are operated.

Because C20 rejects the call no call charges are incurred.

C20 can operate from any Tel number, or, from only those with Caller ID on the 'White list'

1. Insert SIM card

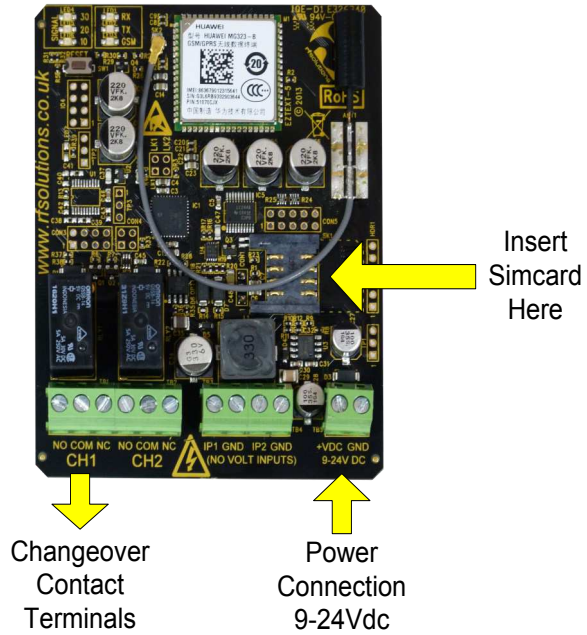
Insert SIM card before applying power (standard 3 Volt SIM cards only).

Ensure SIM card is blank

Ensure the SIM card has not been PIN Code Protected!

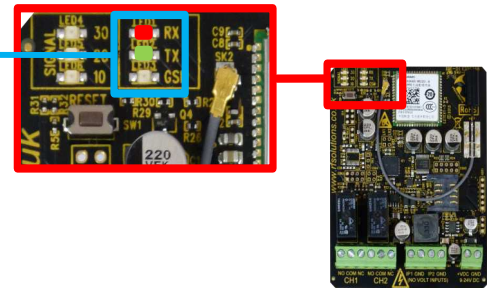
Beware of pay-as-you-go SIM cards which require regular call activity to remain active.

RF Solutions recommends O2 / Vodafone.
Problems have been identified with Orange SIM cards which cannot be guaranteed



2. LED Indication at Startup

| Logging onto Network (Tx/Rx alternate flash) | | | | | |
|---|---|---|---|---|---|
| RX | 🔴 | □ | 🔴 | □ | 🔴 |
| TX | □ | 🟢 | □ | 🟢 | 🟢 |

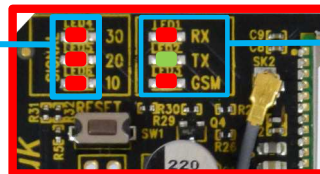


| Error! (All Flash ON / OFF together) | | | | | |
|---|---|---|---|---|---|
| 30 | 🔴 | □ | 🔴 | □ | 🔴 |
| 20 | 🔴 | □ | 🔴 | □ | 🔴 |
| 10 | 🔴 | □ | 🔴 | □ | 🔴 |
| RX | 🔴 | □ | 🔴 | □ | 🔴 |
| TX | 🟢 | □ | 🟢 | □ | 🟢 |

Error - No GSM Service
1. Check SimCard
2. Check Antenna Connection

3. LED Indication after Startup (Normal Operation)

| Signal Strength | | |
|-----------------|--------|------|
| Good | OK | Poor |
| 🔴 🔴 🔴 | 🔴 🔴 | 🔴 |



| Activity LED's | |
|----------------|--------------------------------|
| RX | Receiving an SMS |
| TX | Transmitting an SMS |
| GSM | Intermittent Flash GSM Healthy |

Optional Waterproof Power Supply

Resin Potted Unit (IP67)

Size 83 x 37 x 30mm

Input 100-240Vac Output 12Vdc 1A

Wall Fixing Lugs

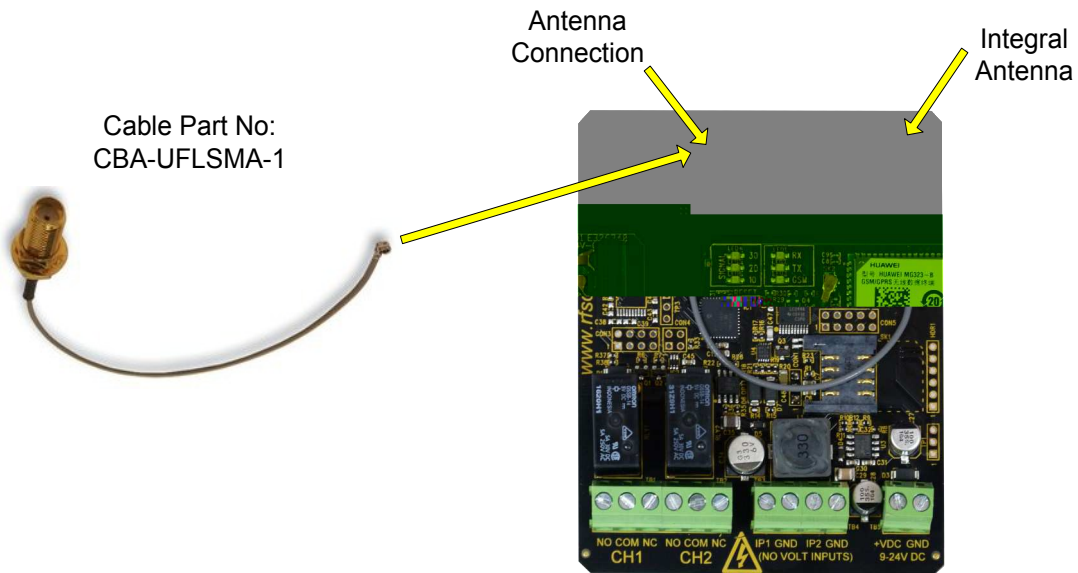
Supplied with 3.3m lead

Part NO PSU-12V1A-IP



Optional External Antenna

Using an external antenna can provide a better signal reception than the internal antenna if required. Using Cable adaptor CBA-UFLSMA-1 provides an SMA Bulkhead connector into which many alternative GSM antennas may connect



Ordering Information

| PART No | Description |
|--------------|---------------------------------|
| C20 | Call2Open Controller IP68 |
| PSU-12V1A-IP | Power Supply IP67 |
| CBA-UFLSMA | Cable assy for external Antenna |

Sending Text Commands (These are optional)

| Command | Description |
|--|--|
| Unit Password (UPW) | <p>The default password is 1234 .it can be changed to any combination of letters/ numbers from 4 to 10 characters.</p> <p>This command that must be sent within 5minutes from initial power up. If for any reason the unit password is lost or miss-entered, remove all power to the unit for 1 minute, then start again.</p> <p>Command Example: UPW#1234 (Sets the password to 1234)</p> <p>Response: Unit Password Set</p> <p>***NOTE ONLY THIS COMMAND IS CASE SENSITIVE!***</p> |
| Change Output delay time (OPDLY1) | <p>By default this is pre-set to 1 Second operation</p> <p>Command Example: 1234#OPDLY1#2 (Sets the changeover contacts to operate for 2 seconds)</p> <p>The time of the output can be set from 1 to 65500 seconds, or If is set to '0', then the output will latch on.</p> |
| Unit Identity (UID) | <p>This sets the 'identity' of the C20 unit, and is included in any response text from the C20</p> <p>Command Example : Password#UID#Gate2 Sets the identity of this C20 to Gate2</p> |
| Report GSM Signal Strength (SIGQ) | <p>Reports C20 GSM signal strength as: 'POOR' (consider alternative antenna) 'OK', or 'Good'</p> <p>Command Example : Password#SIGQ Response : Signal is Good</p> |

Additional Commands for using the White List

| Command | Description |
|--|--|
| <p data-bbox="217 533 516 604">Add Tel No to White List</p> <p data-bbox="305 684 431 722">(C2ONUM)</p> | <p data-bbox="561 445 1398 478">Adds a telephone number (caller ID) to the white list that C20 will accept.</p> <p data-bbox="561 512 1273 575">Note the C20 can store up to 10 cell phone numbers per input. Setting * as a number will allow any number access</p> <p data-bbox="561 617 1024 680">Command Example: 1234#C2ONUM#1#* (Allows any telephone to activate C20)</p> <p data-bbox="561 716 1317 779">Command Example: 1234#C2ONUM#1#0123457891 (Adds the telephone no 01234 57891 to position 1 of the white list)</p> |
| <p data-bbox="211 961 526 995">Report the White List</p> <p data-bbox="298 1075 438 1113">(C2ONUM?)</p> | <p data-bbox="561 989 1308 1022">Report C20 White List of Telephone numbers which are accepted</p> <p data-bbox="561 1056 984 1089">Command Example: 1234#C2ONUM?</p> |
| <p data-bbox="227 1291 509 1362">Delete a number in the White List</p> <p data-bbox="276 1400 461 1438">(C2ONUMDELn)</p> | <p data-bbox="561 1316 1308 1350">This command Deletes a telephone numbers within the White list</p> <p data-bbox="561 1350 1045 1383">Command Example: 1234#C2ONUMDEL#1</p> <p data-bbox="561 1383 1127 1417">Deleted telephone number in position 1 of the list</p> |

Technical Specifications

Storage Temperature: -10 to +70° Celsius. Operating Temperature: 0 to +55° Celsius.
 C20 Enclosure Rating IP68
 C20 Dimensions 130 x 112 x 42mm

| Electrical Characteristics | Min | Typical | Max | Dimension | Notes |
|-----------------------------------|-----|---------|------|-----------|-------|
| Supply Voltage | 11 | | 24 | Vdc | |
| Supply Current for C20: | | | | | |
| Idle | 35 | 44 | 100 | mA | 1 |
| Operating | 200 | 370 | 1000 | mA | 2 |
| Mains rated Relay Rating (230Vac) | | 5 | 12 | A | 3 |

Notes

1. Refers to maximum supply current required with all components idle.
2. Refers to peak supply current required with all components operating. In practice internal reservoir capacitance limits the instantaneous peak current to less than 500 mA.
3. The relay contacts in this unit are for functional switching only and must not be used for isolation purposes.

RF Solutions Ltd. Recycling Notice

Meets the following EC Directives:

DO NOT

Discard with normal waste, please recycle.



ROHS Directive 2002/95/EC

Specifies certain limits for hazardous substances.



WEEE Directive 2002/96/EC

Waste electrical & electronic equipment. This product must be disposed of through a licensed WEEE collection point. RF Solutions Ltd., fulfills its WEEE obligations by membership of an approved compliance scheme.

Waste Batteries and Accumulators Directive 2006/66/EC

Where batteries are fitted, before recycling the product, the batteries must be removed and disposed of at a licensed collection point.

Environment Agency producer registration number:
WEE/JB0104WV.

Disclaimer:

Whilst the information in this document is believed to be correct at the time of issue, R.F.Solutions Ltd does not accept any liability whatsoever for its accuracy, adequacy or completeness. No express or implied warranty or representation is given relating to the information contained in this document. R.F.Solutions Ltd reserves the right to make changes and improvements to the product(s) described herein without notice. Buyers and other users should determine for themselves the suitability of any such information or products for their own particular requirements or specification(s). R.F.Solutions Ltd shall not be liable for any loss or damage caused as a result of user's own determination of how to deploy or use R.F.Solutions Ltd's products. Use of R.F.Solutions Ltd products or components in life support and/or safety applications is not authorised except with express written approval. No licences are created, implicitly or otherwise, under any of R.F.Solutions Ltd's intellectual property rights. Liability for loss or damage resulting or caused by reliance on the information contained herein or from the use of the product (including liability resulting from negligence or where R.F.Solutions Ltd was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict R.F.Solutions Ltd's liability for death or personal injury resulting from its negligence.