|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **ITC Services EMC /RF Test Questionnaire and Contract Review** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | QAM17025EMC-RF-Q Rev 1.0 | | | | | | | | | | | | | | | | | | | | | | |
| Please complete the details below and return to [hans@itc-services.com](mailto:hans@itc-services.com) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | **For office use Ref Nr:** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **1.** | Product name (Trade name of product to be printed on the report | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | Contact Person**:** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **2.** | Size and weight of equipment under test ? | | | | | | | | | | | | | | | | | | | | | kg | | | | | | | | | | | | | | m x      m x      m | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **3.** | Power requirements ? | | | | | | | | | | | | VDC | | | | IDC | | | | | | | | | | | VAC max | | | | | | | | | | IAC | | | | | | | | | | VAC min | | | | | | | | | | | | | IAC | | | |
| **4.** | How many modes of operation will be tested ? | | | | | | | | | | | | | | | | | |  | | | | | | | | | 2 wire AC | | | | | | | | | | | | | | | | 3 wire AC | | | | | | | | | | | | | 3 phase AC | | | | | | | |
| **5.** | Does the equipment require a test jig ? | | | | | | | | | | | | | | | | | | : | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **6.** | What type of interface is needed between the equipment and jig ? | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **7.** | Do you require a | | | | Certificate or  Secret / Confidential/ Restricted Report (see COS for pricing) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | |
| **8.** | Number of people present during tests (A maximum of 2 people will be accommodated. Additional people will be charged at R750 excluding / per person per day) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | |
| **9.** | | Product Manufacturer Information | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Test Applicant Information (If different from manufacturer) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Company Name: | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address line 1: | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Address line 2: | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| VAT NR: | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Contact Person  Telephone: | | Technical: | | | | | | |  | | | | | | | | | | | | Technical: | | | | | | | | | | |  | | | | | | | | | | | | | | Financial | | | | | | | | |  | | | | | | | | | |
|  | |  | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | |
| Email address: | |  | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | |
| **10.** | Short description of product. Include methods of validating correct operation and special precautions  *If available, Include operating manual as attachment.* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **11.** | Do you have a test plan (in lieu of a test plan, the product standard will take precedence) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Yes | | | | | | | | | | | | No | | | | | |
| **12.** | Qty, description and max length of input/output leads: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **13.** | Build Version: | | | | | | | HW: | | | | | | | | | | | | | | | | | | | | | | | | | | SW: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **14.** | Product classification: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | IT | | Control/lab | | | | | | | | Lighting | | | | | Household | | | | | | | | | Communication | | | | | | | | | | | | | | Automotive | | | | | | | | | | | | | Rail | | | | | | Other | | | | | | |
|  | Specify: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **15.** | Product Application Area | | | | | | | | | Commercial/ light industrial | | | | | | | | | | | | | | | | Industrial | | | | | | | | | | | Automotive Safety related \*/ Non safety related | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **16.** | **EMC TESTS** Indicate the tests or specification/s required (if known) : | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| IEC 61000-4-2 (ESD) | | | | | | | | | | | | | IEC 61000-4-3 (RF Immunity) See COS (1) | | | | | | | | | | | | | | | | | IEC 61000-4-4 (Burst /EFT) | | | | | | | | | | | | | | | | | | | IEC 61000-4-5(Surges) | | | | | | | | | | | | | | |
| IEC 61000-4-6 (Conducted RF immunity) | | | | | | | | | | | | | IEC 61000-4-8 (Magnetic Field immunity) | | | | | | | | | | | | | | | | | IEC 61000-4-9(Magnetic Field immunity) | | | | | | | | | | | | | | | | | | | IEC 61000-4-11(Dips and interruptions) | | | | | | | | | | | | | | |
| SANS 222 /CISPR 22 | | | | | | | | | | | | | SANS 211 /CISPR 11 | | | | | | | | | | | | | | | | | SANS 214 /CISPR 14 | | | | | | | | | | | | | | | | | | | SANS 215/ CISPR 15 | | | | | | | | | | | | | | |
| IEC 61000-3-2 (Harmonics) | | | | | | | | | | | | | IEC 61000-3-3 (Flicker) | | | | | | | | | | | | | | | | | Other: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **17.** | Is the product an intentional radiator (Generates RF for communication purposes) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Yes | | | | | | | | | No | | |
| **18.** | If you indicated yes in 17, (1) please complete next page. (2) A detailed block or circuit diagram is required for the report. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **19.** | Sample Handling: After completion, should the product be:  *(All samples will be disposed of 3 months after tests are completed)* | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Destroyed | | | | | | | | Collected | | | | | | | | Couriered (For the account of the applicant) | | | | | | | | | | | | | |
| **20.** | Do you require safety testing? (Subcontracted to TEST Africa) (012 349 1145) | | | | | | | | | | | | | | | | | Yes | | | | | | | | | No | | | | | | | | Should we do ICASA submission? | | | | | | | | | | | | | | | | Yes \*\*\* | | | | | | | | | | | | | No |
|  | Signed | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Print name | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | |
| For more information please call Hans Joubert @ 082 821 4476 or Johan Deysel @ 082 441 1450. Alternatively you can email either Hans Joubert : [hans@itc-services.com](mailto:hans@itc-services.com) or Johan Deysel : [johan.deysel@itc-services.com](mailto:johan.deysel@itc-services.com)  \*For Automotive safety related or RF functions ISO 7637-2 pulses are applicable as well. These are subcontracted.  \*\* For set-up guidelines please see: <http://www.itc-services.com/emc-testing-EUT%20guidlines.html>  \*\*\* Please supply a detailed block diagram or circuit diagram. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | **RF TESTS** | | | | | | | | | | | | | | | | | | | | | | | **Do you require RF testing?** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **21.** | Category (Please indicate the equipment transmitter type (s) (Delete not applicable) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | WiFi | | | Bluetooth | | | | | | | | GSM/GPRS | | | | | | | | 3G | | | | | | | | | Inductive loop | | | | | | | | | | | | GPS | | | | | | | | RFID | | | | | | | | | SRD | | | | | | | |
|  | Other | | | | | | Describe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **22.** | Antenna Configuration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  | Internal | | | | | | | | | | | | | | External | | | | | | | | If external, specify antenna type: | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **23.** | Describe antennas and connectors in detail: | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **24.** | Operating Frequency range / bands / channels | | | | | | | | | | | | | | | | | | | | | | Bottom: | | | | | | | | | | | | | | | | | Middle: | | | | | | | | | | | | | | | | Top: | | | | | | | | | |
| **25.** | Maximum declared power output: | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **26.** | Modulation Type and maximum transfer rate: | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **27.** | Extreme temperature range | | | | | | | | | | | | | | | | | | | | | | Tmin: | | | | | | | | | | | | | | | | | | | | | | | | | Tmax: | | | | | | | | | | | | | | | | | |
| **28.** | Power Source description | | | | | | | | | | | | | | | | | | | | | | Type: | | | | | | | | | | | | | | | | | Vmin | | | | | | | | Vnorm | | | | | | | | | | | | Vmax | | | | | |
| **29.** | Any Modular pre-approvals | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| **30.** | Modes of testing | | | | | | | | | | | | | | | | | | | | | |  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

***Notes on RF tests***

* *To perform radio spectrum matters, the transmitter must be configured to continuously transmit maximum data at maximum power and in most cases on the bottom, middle and top channel without hopping. This can be achieved with special engineering software or with specific support equipment.*
* *In some test cases it will be preferable if the transmitter can be configured to transmit only a carrier without any modulation.*
* *The module must also be configured for normal operating and standby mode.*
* *If more than one RF module installed, the modules must be individually controlled and turned on/off.*

|  |  |  |  |
| --- | --- | --- | --- |
| Is the above achievable: (Delete not applicable) | Yes | No | Not Sure: |

*(If “YES” is not selected, please call Riaan at 082 374 7280 to discuss this in more detail.)*

# Conditions of Sale

* Laboratory time can be booked in ½ day sessions(08:00-12:00) @ R6000.00 each, or full day sessions (08:00-16:00) @ R8500.00 per day. The minimum tariff is R6000.00 excl. The minimum after-hours tariff is R8500.00.
* The cost of a full EMC report covering one product is R2500.00. RF reports cost R3000.00 per RF service. RF certificates cost R500.00 per RF service
* (1) An additional amount of R1500.00 is applicable to IEC 61000-4-3 tests above 1 GHz.
* An additional amount of R300.00 will be charged on overseas payments to account for commission and bank charges.
* **All Quotations are valid for 30 days. All prices exclude VAT.**
* Payment is 30 days net from date of invoice for **account holding customers**. Interest will be charged at a rate of 2% per month or part thereof on overdue accounts.
* **Non-account holding customers will be expected to pay the due amount in full by means of cash, cheque or EFT BEFORE testing will commence. Proof of payment must accompany this acceptance**. Accounts can be arranged in three (3) weeks.
* No work will commence and no test results will be released before receipt of a valid order number for account holding customers.
* This quotation will be deemed to be accepted upon receipt of your order number or payment to FNB Menlyn Square

**Account 621 275 151 64 (Branch code 252 445), Swift Code FIRNZAJJXXX**

* Rescheduling will be treated as a cancellation.
* We reserve the right to charge a 10% cancellation fee on cancellations received prior to 2 working days before the scheduled date.
* The full amount of this quotation will be payable on cancellations received later than 2 working days before the scheduled date.
* The time quoted is an indication of the expected duration of the tests. Should this time be insufficient due to unforeseen circumstances, ITC Services (Pty) Ltd reserves the right to alter this quotation with the approval of the applicant or its representatives.
* ITC Services (Pty) Ltd cannot be held liable for damage to equipment due to fire, theft or any unforeseen circumstances. It is advised that equipment be insured for transport to and storage at our premises.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |
| Applicant name |  | Application date |  | Applicant signature |