

# High performance systems for EMC and RF protection environments



## RSTC - REMC Standard Test Cell

A Rainford Standard Test Cell has been developed for the R&D, production and quality control environments where space is critical.

The cube like design has been produced for small sized DUT's (0.5m x 0.5m x 0.5m) approximately. The main body of the unit is constructed from 2mm thick steel tray that can be either bolted with TCS gasket or welded.

### Operating Frequency: 10KHz - 20GHz

Using the same high end SmartShield technology as incorporated in our larger shielded rooms the RSTC will provide protection and isolation from the surrounding RF environment. With the addition of ferrite and absorber materials low reflections and stable quiet zones are achievable.

### Key features:

- An ideal environment for testing wireless devices as GSM, UMTS, CDMA, Bluetooth, DECT, W-LAN, Zigbee, RFID, Wimax etc.
- RSTC also meets several **ETSI** test standards (**UKAS accredited**)
- Optimised computer modelling to enable partial Hybrid low cost version
- Penetration and filtering can be adapted to the customer's requirements
- Flexible modular design enables easy site changes or upgrading
- Independently certified **100dB @ 18GHz** shielding performance (ISO17025)



### General Description:

The Rainford **RSTC** chamber's overall size results from the use of a unique hybrid absorber design, which require less volumetric space than traditional absorbers.

Using our SmartShield high performance, modular construction shielding system, we can offer a versatile demountable system.

A combined Managerial experience in EMC of over 100 years, to provide complete customer satisfaction.

The Rainford **RSTC** is just one of a range of pre-defined designs that includes the Rainford **RMCC** (Mini Compact Chamber), **REMC3**, **REMC5** & **REMC10**.

Our vast experience and design tools allow us to adapt our existing designs to suit specific customers requirements.

High quality and long life, are guaranteed with our **ISO9001** certified production facility.

With the future in mind, Rainford EMC is certified according to the Environmental standard **ISO14001**

Rainford **EMC** Systems Ltd,  
North Florida Road, Haydock,  
St Helens, WA11 9TN,  
United Kingdom  
Tel: +44 (0) 1942 296190  
Fax: +44 (0) 1942 275202  
email: [sales@rainfordemc.com](mailto:sales@rainfordemc.com)



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## General Specification

|                    |  |
|--------------------|--|
| Dimensions         | 0.45m x 0.45m x 0.45m<br>Or<br>0.90m x 0.90m x 0.90m   |
| Main Body Material | Galvanised spangled stainless steel (2mm)  |
| Door               | 0.3m x 0.3m Double knife edge, over sized hinges   |
| Construction       | Bolted with 100mm centres  |
| Gasket             | Double 'P' type TCS (Tin Copper Silver)  |
| Attenuvent         | 150mm x 150mm Honeycomb stainless Steel  |
| Penetrations       | Main filter Single Phase 240V 16A<br>1 x N-type connector<br>1 x BNC connector<br>1 x Optical 1A |

## Options

5A DC filter  
9-pin D-type interface  
25-pin D-type interface  
USB interface  
LAN interface



## Shielding Attenuation Specification

| Frequency | Field | Attenuation |
|-----------|-------|-------------|
| 10 kHz    | H     | 60dB        |
| 200kHz    | H     | 100dB       |
| 1 MHz     | E     | 100dB       |
| 100 MHz   | E     | 100dB       |
| 500 MHz   | E     | 100dB       |
| 1 GHz     | P     | 100dB       |
| 10GHz     | μ     | 100dB       |
| 18GHz     | μ     | 100dB       |

Please note that whilst only two model sizes have been mentioned (0.9m x 0.9m x 0.9m and 0.45m x 0.45m x 0.45m), we can adapt our designs to suit your requirements. If you feel that these sizes/ configurations do not ideally match your needs please contact us to discuss your requirements further.

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