



EMC TEST CHAMBER COMPACT TC800-20

Anechoic Chamber for Immunity and Emissions Testing

General Description

The Compact TC800-20 is an economical Anechoic Chamber specifically designed for IEC 61000-4-3 AND EN 61000-4-3 Radiated Immunity compliance measurements, and for Radiated Emissions pre-compliance as per ANSI C63.4-2000 with limited scan height.

The chamber features RFI's well known modular shielded room and support structure. The required reflectivity in the test area is achieved with the full lining of chamber walls and ceiling with ferrite tile absorbers. The floor of the chamber is a metallic reflective ground plane with anti-static floor tile covering. The floor area between the EUT and test antenna will be partially covered with removable ferrite panels for radiated immunity measurements. The Compact TC800-20 chamber is qualified for measurement in the frequency range from 26MHz to 1GHz.



Technical Data

External dimensions:	7.04m x 3.04m x 3.04m (LxWxH)
Internal dimensions:	7.0m x 3.0m x 3.0m (LxWxH)
Frequency range:	26MHz to 1GHz
Measuring distance:	Up to 3.0m
Absorber Treatment	
Walls and Ceiling:	Ferrite tile absorbers, type: RFCF-6.7
Floor (partial, carpeted):	Ferrite tile absorbers, type: RFCF-6.7 16 pieces of 600x600mm panels
Emission measurement:	ANSI C63.4-2000 pre-scan (limited height) Normalised Site Attenuation(NSA): 30-300MHz ±6dB; 300-1000MHz ±6dB, 1-18GHz N/A Quiet zone: 1.5m dia. Cylinder @ 1m height
Immunity measurement:	IEC / EN 61000-4-3 compliance measurements Field Uniformity(FU): 26-1000MHz; 0, +6dB; 12 of 16 pts

RFI Industries Pty Limited

52 – 54 Holloway Drive
Bayswater Victoria 3153
AUSTRALIA
P.O. Box 254
Bayswater Victoria 3153
AUSTRALIA

t +61 (0)3 8739 6700
f +61 (0)3 8739 6799
e sales@rfi-ind.com.au
emclabs@rfi-ind.com.au
ABN 66 005 273 950

EMC ENGINEERS & LABORATORIES

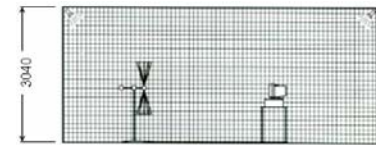
EMC TESTING
EMC COMPONENTS
EMC INSTRUMENTATION
RF ANECHOIC CHAMBERS
RF/EM SHIELDED ENCLOSURES



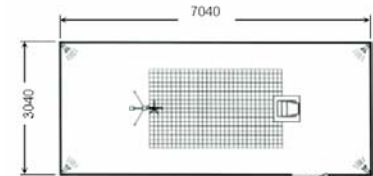
EMC TEST CHAMBER COMPACT TC800-20

Standard Configuration

1 x RF-shielded manual access door, 830 x 2030mm clear opening, with non-metallic door handle
1 x Door maintenance kit
Waterproof / Isolation membrane underlayment
2 x honeycomb air vents (300x300mm) in the ceiling
1 x mains filter, 110/220VAC, 32A, for lights and EUT (wiring not included)
1 x Connector panel (300x300mm) complete with 2xN-type, 1x Fibre Optic connectors
1 x threaded pipe penetration, 2" diameter with flange nuts and cap
1 x brass ground stud
4 x corner mounted light fittings with floodlights (electrical distribution not included)
Absorber lining: RFCF-6.7 on all wall and ceiling surfaces 16 pieces of 600x600mm panels on critical area of chamber floor (removable, carpeted)
Chamber RF shielding Integrity test as per MIL-STD-285, one test at 1GHz
Field Uniformity Test as per IEC 61000-4-3 from 26MHz – 1GHz
Guaranteed performance and a 5 year limited warranty; One year on doors, filters and moving parts



SIDE WALL VIEW



FLOOR PLAN



Options

Shielded control room 3.04 x 3.04 x 2.44m(H)
Site attenuation testing as per ANSI C63.4-2000 to 1GHz
Anti-static vinyl floor lining
Fire detection system
CCTV monitoring system
Intercom system
Electrical distribution
Additional filtering: AC, DC, Audio and Data.
Air-Conditioning systems
Other size door
Raised Reflective Ground Plane floor system
1.2m Surface mounted Turntable
Tripod (Immunity); antenna mast (Emissions & Immunity)
Position controller (for turntable and mast)

RFI Industries Pty Limited

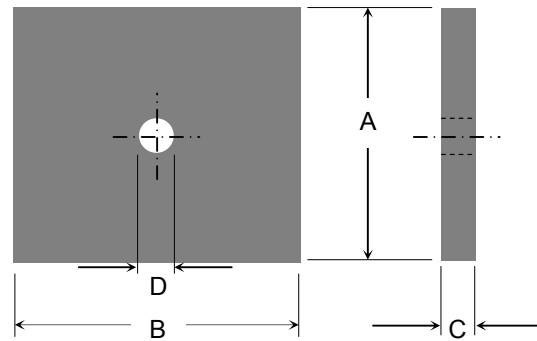
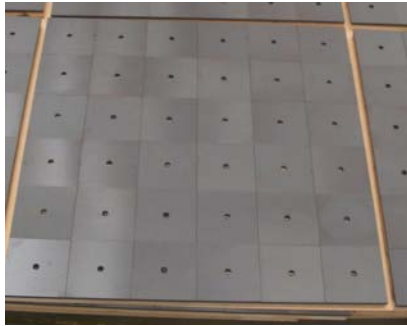
52 – 54 Holloway Drive
Bayswater Victoria 3153
AUSTRALIA
P.O. Box 254
Bayswater Victoria 3153
AUSTRALIA

t +61 (0)3 8739 6700
f +61 (0)3 8739 6799
e sales@rfi-ind.com.au
emclabs@rfi-ind.com.au
ABN 66 005 273 950

EMC ENGINEERS & LABORATORIES

EMC TESTING
EMC COMPONENTS
EMC INSTRUMENTATION
RF ANECHOIC CHAMBERS
RF/EM SHIELDED ENCLOSURES

Ferrite Tile Absorber RFCF-6.7



A: 100mm B: 100mm D: 10mm

<i>Part ID</i>	<i>Thickness</i>	<i>Weight</i>
RFCF-6.7	C: 6.7mm	325g



The RFCF series tile absorbers provide good plane wave electromagnetic attenuation from 20MHz - 1000 MHz for use in anechoic chambers for radiated emissions and immunity measurements.

These ferrite tiles were developed using nickel zinc ferrite material which has been optimised to produce exceptionally consistent, broadband absorption at frequencies down to 20 MHz. The tiles are immune to fire, humidity and chemicals, providing a reliable and compact solution for attenuating plane wave reflections in shielded enclosures.

The tiles are surface ground on all sides to precise mechanical tolerances minimising gaps between adjacent tiles to ensure maximum low frequency performance.

Panels and individual tiles may be mounted to walls with screws, epoxy or contact adhesive depending on conditions.

A standard panel assembly is available. Each panel assembly consists of 36 ferrite tiles epoxy bonded to MDF. (600mm x 600mm)

Normal Incidence Return Loss (dB) vs Frequency (MHz)							
20	30	100	200	400	600	1000	1500
-15	-18	-30	-35	-22	-17	-12	-9

RFI Industries Pty Limited

52 – 54 Holloway Drive
Bayswater Victoria 3153
AUSTRALIA
P.O. Box 254
Bayswater Victoria 3153
AUSTRALIA

EMC ENGINEERS & LABORATORIES
t +61 (0)3 8739 6700
f +61 (0)3 8739 6799
e sales@rfi-ind.com.au
emclabs@rfi-ind.com.au
ABN 66 005 273 950

EMC TESTING
EMC COMPONENTS
EMC INSTRUMENTATION
RF ANECHOIC CHAMBERS
RF/EM SHIELDED ENCLOSURES

RFI Industries

RFI Industries is Australia's leading designer and manufacturer of EMI shielded enclosures for all medical, commercial and military applications. RFI Industries supplies a complete range of EMC test instrumentation and components as well as EMC compliance, engineering and consultancy services.

RFI's shielding division is fully equipped to design, fabricate, install and test all types of Radio Frequency and other shielded enclosures, from small bench top boxes for laboratory use to large Anechoic Chambers for Military, Industrial and Scientific use.



RFI conducts EMI Test Laboratories and an Open Area Test Site (OATS). RFI's Laboratories are equipped with RFI's shielded rooms. Its engineers and technicians are constantly promoting enhanced performance. RFI is the only RF Shielded Room manufacturer in the world which also operates an extensive EMC Laboratory.

RFI Branches and Agents

Sydney

50 - 56 Barry Avenue Mortdale,
New South Wales 2223,
Australia
Tel: +61 2 9389 7607 Fax: +61 2 9386 0597
Contact: Darek Ocias rfi@tig.com.au

Hong Kong

Yan Thai (Hong Kong) Co Ltd
7 Pine Tree Hill, Tsim Sha Tsui
Kowloon, Hong Kong
Tel: +852 2369 0377
Fax: +852 2739 6557
ythai@yanthai.com

India

Fabionix (India) Pvt. Ltd.
#28/B, 6th Cross, 4th Main Road, Industrial Town
Rajajinagar, BANGALORE 560 044
India
Tel: +91 80 338 0347
Fax: +91 80 340 0565
fabionix@vsnl.net

Indonesia

PT Cosmotec Sarana Elektronika Indonesia
Jalan Jembatan Dua
Komplek Ruko Harmoni Mas Blok A 15
Jakarta Utara (14450) Indonesia
Tel: +62 21 667 0011
Fax: +62 21 667 0020
cosmotec@indosat.net.id

Israel

IES Electronic agencies (1986) Ltd.
32 Ben Gurion Street,
Ramat Gan 52573, Israel
Tel: +972 3 753 0753
Fax: +972 3 753 0701
aviv@ies.com
www.ies.com

Korea

Sangho Lead Industry
301 Samyoung B/D 702 16,
Yoksam Dong
Kangnam Ku, Seoul, Korea
Tel: +82 2 561 2882
Fax: +82 2 569 8532

Kuwait

Boudy International Trading Co.
Office No. 4301 - 4305
Mezzanine
Souk El Saffat
Al Murqab
Tel: +965 242 0401 / 2
Fax: +965 572 9144
Abdallah.Saad

Malaysia – Kuala Lumpur

Cosmotec Electronics Sdn Bhd (361552 - M)
No 86B Jalan SS 24/2 Taman Megah
47301 Petaling Jaya
Selangor Darul Ehsan, Malaysia
Tel: +(603) 7804 1993
Fax: +(603) 7804 6263
cosmotecsales@po.iaring.my

Malaysia - Penang

Cosmotec Electronics Sdn Bhd
No: 10 - G (1st Floor),
Jalan Rumbia
Sungai Nibong Kecil 11900
Penang, Malaysia
Tel: +(604) 642 8030
Fax: +(604) 642 9033
cospng@tm.net.my

New Zealand

44 Pharazyn Street
Lower Hutt, Wellington
New Zealand
Tel: +64 4 566 3222
Fax: +64 4 566 3722
sales@candi.co.nz
www.candi.co.nz

Pakistan

Advanced Engineering Research Organisation
PO Box 145
Haripur, Pakistan
Tel: +92 051 563 447
Fax: +92 051 524 233

Singapore

Cosmotec Enterprises Pte. Ltd.
28 Woodlands Loop #02-00
Singapore 738308
Tel: +65 6751 4533 Fax: +65 6755 2677
cosmotec@sanwagroup.com.sg

Taiwan

Telesplicing Enterprise Co. Ltd
PO Box 7 683
Taipei, Taiwan
ROC
Tel: +886 2 705 3143
Fax: +886 2 705 3143

Thailand

Cosmotec Electronics (Thailand) Co. Ltd
88/8 Soi Burerom 2, Boripat Road
Banbart, Pomprab
Bangkok 10100
Tel: +66 2 221 7014, +66 2 224 0575
Fax: +66 2 224 0575
cosmotec_thai@anet.net.th