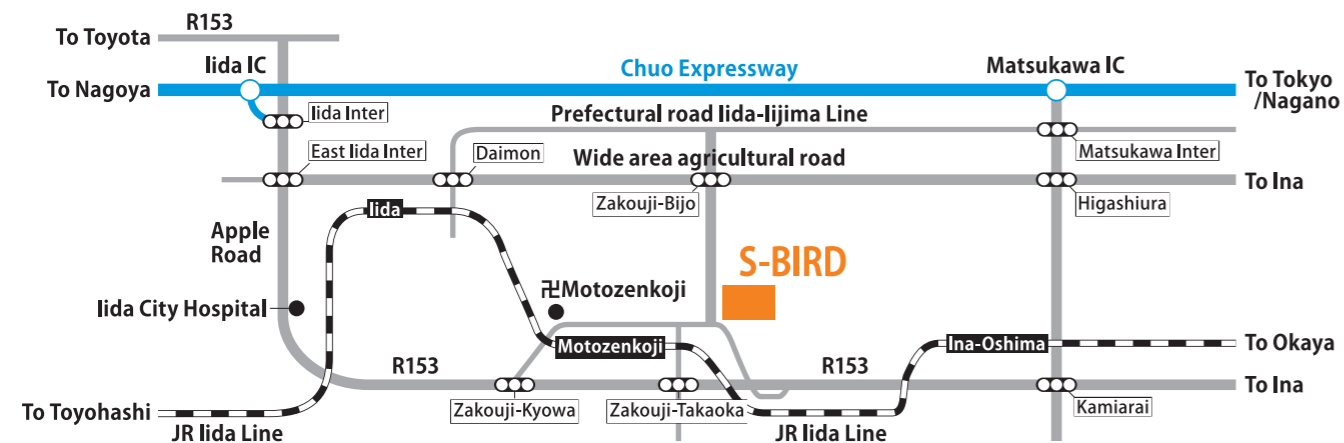




Access Map



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Testing Equipment Facility Guide

Iida Industrial Technology Testing Laboratory

Aircraft industry

Iida Industrial Technology Testing Laboratory

Equipped with Japan's Foremost Environmental Testing Equipment

This facility offers a wide variety of services for small and medium sized companies that are involved in the development of new technologies and new products, including requested testing, calibration of measuring equipment, equipment loans, technological support, and consultation. The facility has EMC test rooms (anechoic chambers) and test rooms with analysis / analytical equipment, and can provide Test Reports and Calibration Certificates. We are one of the leading facilities in Japan with environment testing equipment for the aircraft industry, and we also accept applications from outside the prefecture for use of the facilities.



List of Testing Equipment in the Facility

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Temperature / Altitude / Humidity Icing Test Chamber

Introduction

Reproduces atmospheric pressure, temperature and humidity ranging from ground level to high altitude, and evaluates the safety and reliability of aircraft equipment, etc., in such environments.



Detailed specifications

Manufacturer : ESPEC Co.,Ltd MZH-35S-H

1. Performance

Pressure range	101.3 kPa (atmospheric pressure) to 10.7 kPa (equivalent to 52,000 ft)
Pressure adjustment range	1% of full scale in the range of 10.7 kPa to 101.3 kPa
Pressure drop time	From 101.3 kPa (atmospheric pressure) to 10.7 kPa within 15 minutes
Pressure rise time	Up to 101.3 kPa (atmospheric pressure) within 5 minutes (however, using manual atmospheric introduction valve)
Temperature range	-70°C to 100 °C(atmospheric pressure) -60°C to 100°C (10.7kPa to atmospheric pressure)
Temperature rise time	No load · No sample · Conveyor only From +20°C to +100°C within 120minutes (under atmospheric pressure) Mass load aluminum 100 kg · Heating load 100 W From +20°C to +100°C within 155 minutes (under atmospheric pressure)
Temperature fall time	No load · No sample · Conveyor only From +20°C to -70°C within 120 minutes (under atmospheric pressure) Mass load aluminum 100 kg · Heating load 100 W From +20°C to -70°C within 155 minutes (under atmospheric pressure)
Humidity range	20% to 95% (at atmospheric pressure) / 20% to 85% (at 10,000 ft) 95% RH (11.6 kPa 50,000 ft) at 5°C to 15°C

2. Dimensions / Weight

Interior Dimensions of Test Room	W:1,500mm × H:1,500mm × D:4,000mm
Test Chamber Outer Dimensions	W:3,630mm × H:2,700mm × D:5,100mm
Test Chamber Main body mass	Approximately 10,000kg

3. Format

Pressure control	Continuous PID control
Temp. control	Continuous PID dry bulb temp. control, balanced temp. control system
Pressure and temperature setting method	Fixed value setting and program setting
Decompression method	Decompression by mechanical vacuum pump
Compression method	Pressure boost by introduction of atmosphere
Heating method	Heating by electric heater
Cooling system	Cooling by mechanical refrigerator
Humidification system	Humidification by electrothermal steam generator

4. Equipment

Observation Window	with heater □450 mm front and left side 1 each
Interior lighting	2 LED lights
Cable hole (left side)	(Φ50 mm) 1 piece (Φ100 mm) 4 pieces
Thermocouple terminal (left side)	T type thermocouple 4P 2 pcs
Sample temperature detection terminal	2 pc for test process
Other	Skydrol-resistance, specimen slide conveyor Emergency stop switch, work safety switch, single tower (Patlite)

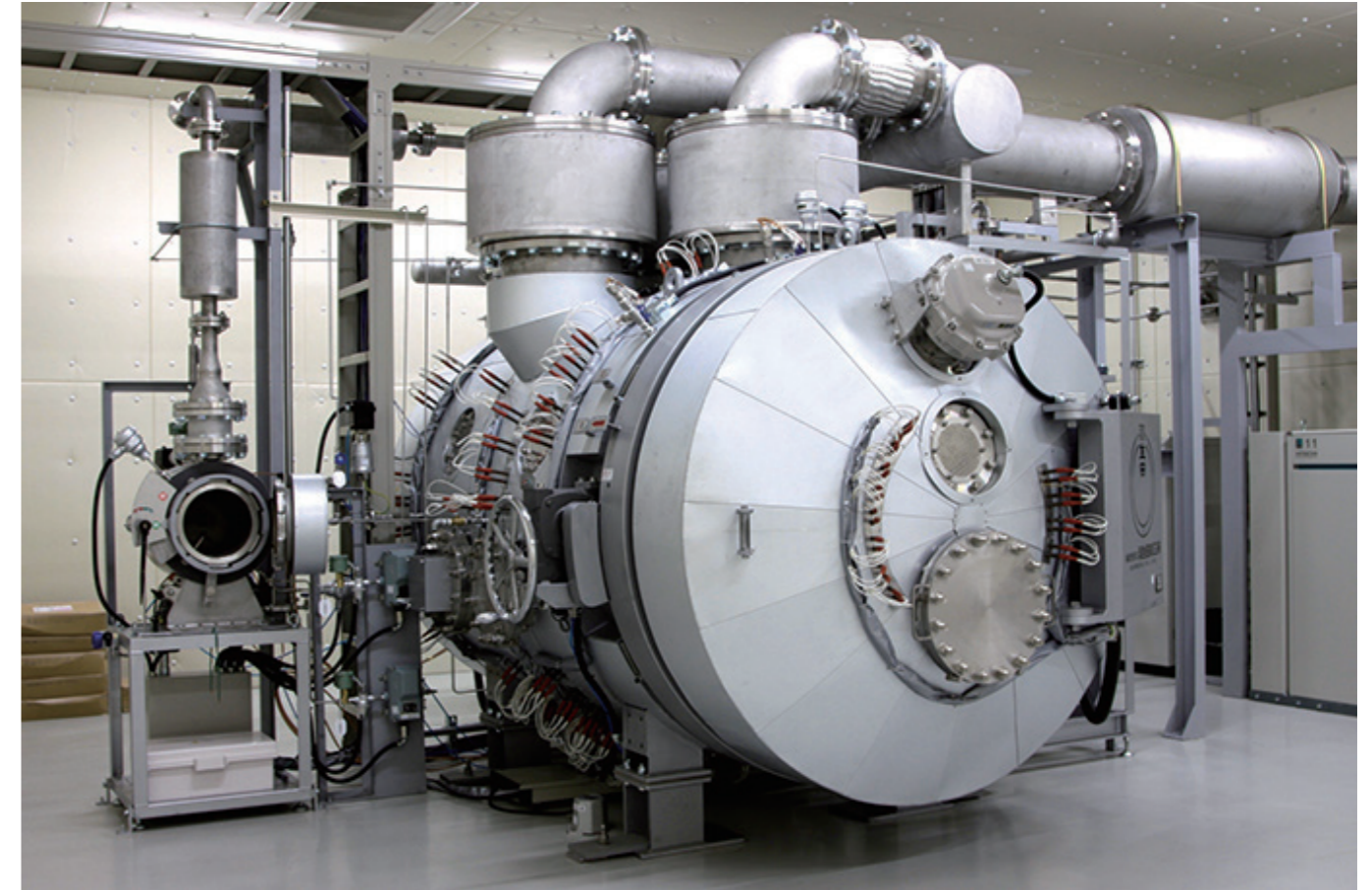
Case Study

RTCA-DO160 Section24 etc.
Temperature Altitude Test, Compatible with Environmental Test with Atmospheric Pressure Change Temperature Altitude Test.

Explosion Proof Test Chamber

Introduction

It evaluates not causing an explosion in the explosive gas around by the operation of the equipment and the generation of heat.



Detailed specifications

Manufacturer :Hanyuda ironworks Co.,Ltd SH1290000-00

1. Performance

Pressure range	101.3 kPa (atmospheric pressure) to 4 kPa (equivalent to altitude of 100k ft)
Pressure adjustment range	±1% of full scale
Pressure drop time	From 101.3 kPa (atmospheric pressure) to 4 kPa within 15 minutes
Pressure rise time	Up to 101.3 kPa (atmospheric pressure) within 10 minutes
Temperature range	10°C to 260°C
Temperature rise time	from+20°C to +150°C within 90 minutes
Fuel used	N Hexane (Normal hexane)
Designation pattern	MIL-STD-810 511.4/511.5/511.6 procedure I & II Program operation and manual operation compliant with RTCA DO160G Sec.9
Noise level	Less than 65 dB at explosion
Other	Time signal function, Self diagnosis function Timer function, Trend graph function Program operation , Fixed-value operation Manual operation also possible

2. Dimensions / Weight

Main chamber inner diameter	Diameter 1,500mm × Depth 2,000m
Sub chamber inner diameter	Diameter 250mm × Depth 250mm
Test equipment body mass	Approximately 10,000kg

3. Method

Pressure control	Continuous PID control
Temperature Control	Continuous PID control with multiple points
Pressure /Temperature setting method	Fixed value setting and Program setting , Temperature gradient setting possible
Decompression method	Decompression by vacuum pump
Pressurization method	Pressure boost by introduction of atmosphere
Heating method	Heating by electric heater

4. Equipment

Observation window	Heat resistant tempered glass Door (1 piece) Sides (2 pieces)
Interior lighting	2 LED lights
Cable hole (left side)	(diameter 250 mm) 2 pieces; door (diameter 300 mm) 1 piece
Thermocouple	K type thermocouple 10P (5 pieces)
Sample power supply control terminal	12pins 10A (1 piece)
Other	Manipulator available (However, processing is required according to the product) High Speed camera , Emergency stop switch, Safety device, Single tower (Patlite)

Case Study

RTCA-DO160G Section.9
MIL-STD-810 511.4/511.5/511.6 procedure I & II

Rapid-rate Temperature Change Test Chamber

Introduction

This device reproduces sudden temperature fluctuations such as occur in extreme environments on the ground and in the air, in order to evaluate the safety and reliability of aircraft equipment, etc.



Detailed specifications

Manufacturer : ESPEC Co.,Ltd HRG-1800HS

1. Performance

Temperature Range	-70°C ~ 180°C
Temp Fluctuation	±0.5°C (-70°C ~ +100°C) ±1.0°C (+101°C ~ +180°C)
Temperature Grade	5°C
Spatial Temp Variation	5°C
Temp Change Rate (Heat up / Pull Down Rate)	-57°C ⇄ 86°C 10°C/min. (linear) Temp Settings : (-57°C, 86°C) Heat Generation : 5 kW(for SUS304 50kg) ※The temperature rate change variation from start to finish temperatures is ±10°C of the max/min temperature range.
Noise Level	75dB or lower ※Measurements taken in an anechoic room, 1m into the chamber at a height of 1.2m (JIS-Z-8731:1999A characteristics)

2. Dimensions / Weight

Chamber Inside Dimensions	W:1,500mm × H:1,200mm × D:1,000mm
Chamber Exterior Dimensions	W:1,700mm × H:2,340mm × D:6,991mm
Chamber Weight	4,800kg
Chamber Load Resistance	100kg(uniform load)

3. Format

System	Balanced Temperature Control system (BTC system)
Operation parameters	(1) Test area temperature range : 0°C~+40°C (2) Coolant temperature range : +5°C~+32°C
Heater	70 kW
Coolant	Plate fin cooler ×2
Cooling Method	Mechanical cascade refrigeration system
Compressor	Scroll-type 15kW+15kW ×4
Condenser	Water-cooled condenser ×4
Refrigeration Capacity Controller	Electronic auto expansion valve Refrigerant : R449A, R508
Air circulator	Sirocco fan (Electric motor direct coupling 1500W)

4. Accessories

Observation Window	295×380 mm (effective field of view)
Cable ports left side	Inside diameter: Φ 50mm ×2, Φ100mm ×2
Interior Light	LED AC100V 7W ×1
Emergency Kill Switch	×1
Signal lamp tower (with buzzer)	×1 3-color LED from top: red, yellow, green (PATLITE Corporation)
Paperless Recorder	Scale Range: -100~+200°C Input Number: 6 ch. Input: T-type thermocouple Display accuracy: ±(0.1%±1 digit±0.5°C)

Case Study

Commercial aircraft equipment (RTCA-DO160 Sec.5), etc.
Compatible with various temperature tests.

Flammability and Fire-resistance Testing Equipment 1/2/3

Manufacturer: Marlin Engineering, Inc

① Flammability Chamber

Introduction

Evaluates the flame-spread rate, self-extinguishing properties, etc., of specimens.

- 12 second, 60 second Vertical flammability tests
- Horizontal flammability tests
- 45 degree burn-through tests
- 60 degree wire insulation tests

Specifications

- Gas pressure regulator and gauge (0~5psi)
- Flowmeter for accurate flame length adjustment
- Can be set for visibility from both sides with no supplemental equipment.



② Heat Release Chamber

Introduction

Evaluates the flame-resistance (material heat release) of specimens.

Specifications

- Meets latest FAA requirements, with upgradability for future FAA standards
- 4 air-cooled Globars adjustable in pairs
- Links to external computer, and calibration and test data can be acquired with USB
- Data can be gathered in CSV format for reading to spreadsheet software



③ Smoke Density Chamber

Introduction

Evaluates the flame-resistance (material smoke release) of specimens.

Specifications

- Standard smoke density meets latest FAA requirements
- PID Temperature Control for stable furnace settings
- Coil-type tubular radiant heater with integrated thermocouple
- Links to external computer, and calibration and test data can be acquired with USB
- Data can be gathered in CSV format for reading to spreadsheet software



Flammability and Fire-resistance Testing Equipment 4/5/6

Manufacturer: Marlin Engineering, Inc

④ Vertical Flame Propagation Chamber

Introduction

Evaluates the flame-resistance (insulation flammability) of specimens.

Specifications

- Heat-resistant glass built into door allows easy viewing and cleaning
- Holder affixed to internal door allows rapid exchange of specimens
- Calibrated gas and air mass flow controllers for accurate flame length measuring
- Coil-type tubular radiant heater
- Pneumatically operated ribbon burner
- Testing heat control possible with automated burner operation and Data Acquisition control



⑤ Radiant Panel Chamber

Introduction

Measure the heat radiated from the panel

Specifications

- Drawer open/close and pilot raise/lower switches, auto/manual switch
- Pressure regulator and gauge
- Thermocouple with external connection port for chamber temperature measurement
- 2 testing jigs
- Links to external computer, and calibration and test data can be acquired with USB
- Data can be gathered in CSV format for reading to spreadsheet software



⑥ Conditioning Chamber

Introduction

Maintains uniformity of specimens

Specifications

- Test chamber dimensions WxDxH=110x75x95mm (794L)
- Temp/humidity range : +20°C~+75°C / 50%rh~90%rh
- Temp/humidity max/min error : ±2°C / ±5%rh



Flammability and Fire-resistance Testing Equipment 7/8

Manufacturer: Marlin Engineering, Inc

⑦ Sonic Burner

Introduction

Evaluates the flame resistance of specimens (seat cushions, cargo liners, magnesium parts, insulation near engine exhaust)

Specifications

- Built to meet latest FAA requirements, including new ignition restarter and externally mounted sparkplugs
- Vacuum tubes and fuel supply pipes
- The full-function desktop control panel contains all electronic control circuits including data collection systems, allowing for data collection, display, storage, as well as providing auto-calibration and test-mode.



⑧ Toxicity Analysis Kit

Introduction

Analyzes the toxic gas components emitted from combustion of specimens

Specifications

- Testo 350 Combustion Analyzer with all compatible sensors
- Fluoride electrode, ion solution analyzer, requisite glass and other containers
- Compressor with flow regulator, requisite solutions for ion analysis



Case Study

RTCA-DO160G Sec.26 ①~⑦
D6-51377 (Boeing) , ABD0031 (Airbus) ⑧

Salt Spray Test Instrument/CASS Test Instrument

Introduction

This device determines the levels of corrosion by spraying salt water and CASS solution on the surface of metals and plastics.

Specifications

CAP-90V-4Z Suga Test Instruments Co., Ltd

Testing Standards	ISO9227, JIS Z 2371, JIS H 8502, ASTM B 117, etc
Test Temperature	35°C ~ 50°C
Spray Solutions	5% neutral salt water, acetate solution, CASS solution
Test chamber interior dimensions	90cm × 60cm × 40cm
Number of specimens	48 (ISO, JIS compliant test specimens)
Test specimen angles	6°, 15°, 20°

*However, for salt water spray testing after CASS testing has been performed, more than 24 hours of washing is required.



High Temperature Creep Testing Machine

Introduction

This device determines the deformation and durability of metals under prolonged periods (more than 100 hours) of load. It also determined the deformation and durability of metals when exposed to heat (300°C~900°C).

Specifications

Vertical Double-lever type Creep Testing Machine Shimadzu Access Corporation

Testing Standards	JISG0567 specimens, ASTM F-519 specimens By changing the jig, both JIS High-temperature Creep Testing and Delayed Fracture Testing are possible
Maximum Load	50kN (5t) Lever ratio 1 : 50
Load Accuracy	Within ±0.5% of displayed value
Temperature Testing Chamber	300°C ~ 900°C
Maximum Test Conditions	50kN (up to 800°C), 20kN (900°C)



Compact Ultra Low Temperature Chamber

Introduction

This device evaluates the temperature effects on a product at a constant temperature (ultra-low temperature).

Specifications

MC814 ESPEC Corp.

Test Area	W400mm × H400mm × D400mm
Temperature Range	-85°C ~ +180°C
Temperature Fluctuations	Within ±0.5°C (-85°C ~ +100°C) Within ±1.0°C (+101°C ~ +180°C)
Temperature Rate of Change	Between -58.5°C ~ +153.5°C Heat-up rate 5.5°C/min; Pull-down rate 2.2°C/min

*Testing with Program operation and Constant operation are possible.



Air to Air Thermal Shock Chamber

Introduction

This device evaluates the temperature effects on a product when exposed to rapid fluctuations between low and high temperatures.

Specifications

SA-203ES-W ESPEC Corp.

Test Area	W650mm × H460mm × D670mm
Load Resistance	Over 50kg
High-temp. Exposure Range	+60°C ~ +300°C (300°C specs)
Low-temp. Exposure Range	-70°C ~ 0°C
Temperature Fluctuation	Within ±1.0°C
High-temp Incubator	Pre-heat limit over +350°C Heat-up time: from room temp to +350°C within 40 min
Low-temp Incubator	Pre-cool limit below -75°C Pull-down time: from room temp to -75°C within 45 min

● Heat-up/pull-down time -20°C↔100°C is less than 3 minutes (actual measurement value)



3m Electromagnetic Anechoic Chamber

Specifications

Riken Environmental System Co., Ltd.

Chamber Interior Dimensions	5.3m (W) × 8.65m (L) × 5.2m (H)	
Entrance Door Dimensions	Over 2.0m(W) × 2.0m(H)	
Electromagnetic Wave Absorber	Hybrid Ferrite and Pyramid-form electromagnetic wave absorber	
Anechoic Chamber Characteristics	Site Attenuation Characteristics	1) ANSI C63.4 compliance (30MHz~1GHz, measuring distance 3m, measuring range 2.0mΦ) : ±3.0dB 2) IEC61000-4-3 Ed3 compliance: Site VSWR (1GHz~6GHz, measuring distance 3m, measuring range 2.0mΦ) : up to 6.0dB
	Uniformity of radiated electric field Compliant with IEC61000-4-3	1) IEC61000-4-3 (80MHz to 6GHz, measuring distance 3m, measuring area 1.5x1.5m lower vertical plane) Variance among 16 points: within 0 to +6.0 dB
	Shield characteristics Compliant to MIL-STD-285	Magnetic field : 10kHz~100kHz / over 60dB 100kHz~30MHz / over 100dB Electric field : 10kHz ~30MHz / over 100dB Plane wave : 30MHz~6GHz / over 100dB 6GHz~18GHz / over 80dB
	Power cable cut-off characteristics Compliant to MIL-STD-220A	14kHz~10GHz over 100dB
Turn-table	Diameter : Φ2m Load : 1t Rotation speed : variable Rotation angle : 0~400 degrees (limited rotation)	
Antenna mast	Height range : 1~4m Raising speed : Slow 36mm/s Fast 360mm/s	
Power supply	On turntable for EUT CVCF system CVCF 4KVA Single-phase : 100~240V 50/60Hz 15A 2P+E Double outlet in 3 locations Single-phase : 100~240V 50/60Hz 16A 2P+E Single outlet (European type) in 3 locations 100~240V 400Hz 20A 2P+E Single outlet in 1 location DC 0~200V 18A 2P+E Single outlet in 1 location On turntable for EUT Transformer system Single-phase : 100V 60Hz 15A Double outlet UL-type in 4 locations Three-phase : 200V 60Hz 30A 3P Breaker in 1 location DC Regulated power supply 0~60V 100A terminal block in 1 location General Transformer system 100V 60Hz 15A outlet	
Other	Chamber observation monitor One Chamber observation +Color LCD television For EUT observation over 200V/m (CCD camera) +Color LCD television Transmission cables between Anechoic Chamber and measuring room for control and measuring 80mm ports ×2 22mm ports ×2	



3m Electromagnetic Anechoic Chamber



Shield Room



Measurement Room



Amp Room

Shield Room

Specifications

Riken Environmental System Co., Ltd.

Chamber Interior Dimensions	3.9m (W) × 8.85m(L) × 2.58m(H)	
Entrance Door Dimensions	1.2m(W) × 2m(H) 1.0m(W) × 2.0m(H)	
Shield Room Characteristics	Shield Characteristics MIL-STD-285 compatible IEEE Std-299 compatible	Magnetic field : 150KHz~30MHz over 100dB Electric field / Plane wave : 30MHz~1GHz over 100dB
	Power cable cut-off characteristics MIL-STD-220A compliant	50KHz~150KHz over 80dB 150KHz~1GHz over 90dB
Power Supply	For EUT CVCF system CVCF 4KVA Single-phase : 100~240V 50/60Hz 15A outlet Single-phase : 100~240V 50/60Hz 16A outlet For EU Transformer system Three-phase : 200V 60Hz 30A breaker General : Transformer system 100V 60Hz 15A outlet	

Measurement Room / Amp Room

Specifications

Riken Environmental System Co., Ltd.

Chamber Interior Dimensions	6.14m(W) × 8.36m(L) × 3.07m(H) Floor SUS t=2.0mm	
Entrance Door Dimensions	1.2m(W) × 2m(H)	
Shield Room Characteristics	Shield Characteristics MIL-STD-285 compliant	Electric field : 10KHz~30MHz over 90dB Plane wave : 30MHz~1GHz over 90dB
	Power cable cut-off characteristics MIL-STD-220A Compliant	50KHz~150KHz over 80dB 150KHz~1GHz over 90dB

EMI Testing System

Specifications

Electric Field Strength Test	30MHz~18GHz Compatible standards : VCCI, FCC, CISPR
Noise Terminal Voltage Measurement	150KHz~30MHz Compatible standards : VCCI, FCC, CISPR
Noise Power Measurement	30MHz~300MHz Compatible standards : Electrical Appliances and Materials Safety Act, etc.
Radio Interference	150KHz~1GHz (excluding some frequencies) Compatible standards : CISPR25, etc.
Conduction Interference	150KHz~108MHz LISN& current probe (excluding some frequencies) Compatible standards : CISPR25, etc. Compatible standards NDS C 0011C Test method 1, Test method 2 CE1, CE4, CS1, CS2, CS5, CS7, RE1, RE2, RS1, RS2, RS3 Compatible standards MIL-STD-461/462C CE01, CE02, CE03, CE04, CS01, CS02, CS06, RE01, RE02, RS01, RS02, RS03 Compatible standards MIL-STD-461/462D • E • F CE101, CE102, CS101, CS114, CS115, CS116, RE101, RE102, RS101, RS103 Compatible standards RTCA-DO160 Section21 CE, RE



Immunity Testing System

Introduction

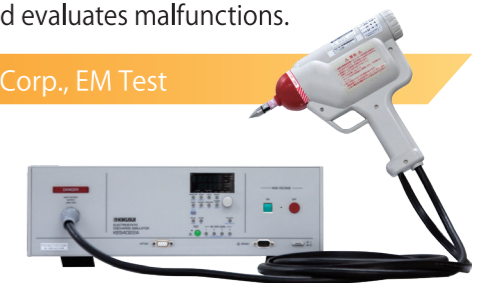
This applies static electricity and special waveform noise to the product and evaluates malfunctions.

Specifications

Kikusui Electronics Corp., EM Test

Electrostatic Tester

Discharge Method	Contact discharge or Air discharge
Test voltage	0.5kV~30.0kV
Polarity	Positive or Negative
Discharge resistance	50MΩ
Discharge interval	0.05s~0.1s~99.9s
Number of Discharges	1~99999 time, infinite
Compatible standards	EN/IEC61000-4-2 Ed2.0 : 2008 ISO10605 Ed2.0 : 2008 standard compliant RTCA-DO160 Section25



Electrostatic Tester

Fast Transient Burst Simulator

Output voltage	200V~4800V±10% 10V steps
Polarity	Positive or Negative
Synchronization	0° ~360°
Burst Frequency	0.1ms~999.9ms
Timer	1s~99h59m
Tested Equipment Power Capacity	AC: 3-phase 5-wire 440V/50A DC: 250V/10A
Compatible Standards	IEC/EN61000-4-4 Ed2.0



Fast Transient Burst Simulator

Proximity Antenna Test Antennas

Toyota spec	144MHz~1880MHz(1/4λ) 9 units
Nissan spec	28MHz~2590MHz 37 Units
Ford spec	500MHz~3GHz

●Automated testing is possible with Proximity Antenna Test Software.



Proximity Antenna Test Antennas

BCI Testing System

Introduction

This applies conductive noise to the product and evaluates its susceptibility.

Specifications

Nihon Automatic Control Co., Ltd

Frequency Range	10KHz~1GHz
Compatible Standards	MIL-STD-461C•D•E•F CS114, IEC61000-4-6, ISO11452-4, RTCA-DO160 Section20 CS
Testing Methods	Substitution method, Closed-loop method, Electric power control possible



Ultra-Compact Simulator

Introduction

This applies special waveforms and lightning waveforms to the product to evaluate malfunctions. It also subjects the product to magnetic fields and evaluates malfunctions.

Specifications

EM Test

Lightning Surge Test

Output voltage	160V~5000V±10% 20V steps
Tested Equipment Power Capacity	AC: single-phase 300V/16A/50/60Hz 3-phase 5-wire 440V/32A DC:300V/10A
Compatible Standards	IEC61000-4-5, EN61000-6-1 Generic, EN61000-6-2 Generic



Fast Transient Burst Test

Output voltage	200V~5500V±10% 20V steps
Polarity	Positive or Negative
Synchronization	0° ~360°
Burst frequency	0.1ms~999ms
Timer	1s~99h59m
Tested Equipment Power Capacity	AC: single-phase 300V/16A/50/60Hz 3-phase 5-wire 440V/32A DC:300V
Compatible Standards	IEC61000-4-4 EN61000-6-1 Generic EN61000-6-2 Generic

GHz band High Frequency Power Amplifier System

Introduction

This irradiates the product with GHz-band high frequency electromagnetic waves for testing (electric field strength is 200V/m)

Specifications

PRANA Model: AP32SW220

Frequency	0.8GHz~4.0GHz
Electric field strength	3V/m~200V/m
Test modes	No modulation, AM modulation, PM modulation
Compatible Standards	IEC61000-4-3 3rd Edition2006, EN61000-4-3 JIS C 61000-4-3, ISO11452-1, ISO11452-2, 204/104EC JAE J1113-21, MIL-STD5 RS, RTCA-DO160 Section20 RS

●The title generator allows for recording of test conditions display and test status.



Noise Resistance Testing Device

Introduction

This applies noise to the power and transmission cables on defense and aircraft related instruments, and evaluates the effects of noise on them.

Specifications

EM Test / EMC Partner, etc.

RTCA-D0160 test

Test Items	Test content
Power Input Test	Sec.16 Current capacity (3-phase mode 26A Parallel mode 78A) ●Automatic test parameter settings, operation, and reports are possible.
Voltage Spike Test	Sec.17 Power cable 10μS 600V
Voice Frequency Conducted Interference Susceptibility Test	Sec.18 10Hz-150 kHz up to CategoryZ ●Automatic test parameter settings, operation, and reports are possible.
Induced Signal Interference Susceptibility Test	Sec.19 Evaluates the effects on equipment and on connecting cables when magnetic fields are induced. Evaluates the effects on equipment and on connecting cables when electric fields are induced. Up to CategoryZ (excluding voltage spikes)
Radio Frequency Radiation Susceptibility Test	Sec.20 CS : 10kHz-400MHz RS : 100MHz-18GHz (up to 200V/m)
Radio Frequency Energy Emission Test	Sec.21 CE : 150kHz-152MHz RE : 100MHz-6000MHz
Lightning Induced Transient Interference Susceptibility Test	Sec.22 Test waveforms as shown below ●Coupling transformer, power supply monitor, selection of waveform modules included ●Automatic testing of standard levels is possible
Electrostatic Discharge Test	Sec.25 330Ω 150pF 15kV

Sec.22 Table of Waveforms

WaveForm No.	Voltage/Current Waveform	Single Stroke	Multiple Stroke	Multiple Burst
1	6.4 / 69 (70)μs		○	
2	100 / 6.4μs	○	○	
3	1MHz	○	○	○
3	10MHz	○	○	○
4	6.4 / 69 (70)μs	○	○	
5A	40 / 20μs	○	○	
5B	50 / 500μs	○	○	
6	0.25 / 4μs	○		○



Sec.16



Sec.17



Sec.18•19



Sec.22