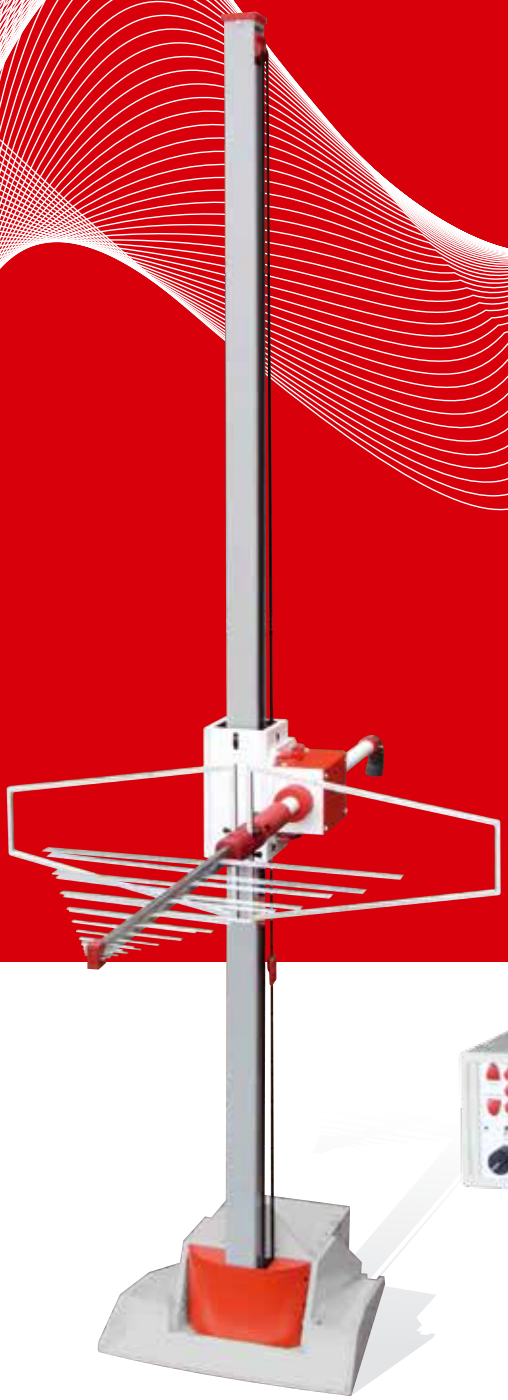
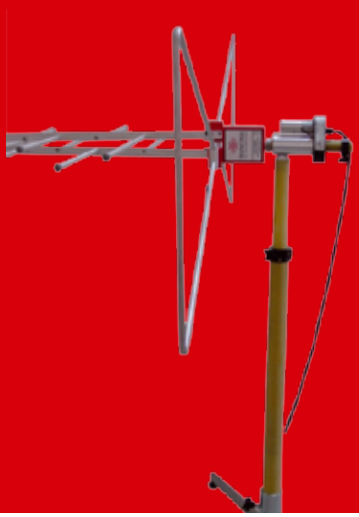
ACCESSORIES FOR ANECHOIC CHAMBERS, OATS AND SHIELDED ROOMS

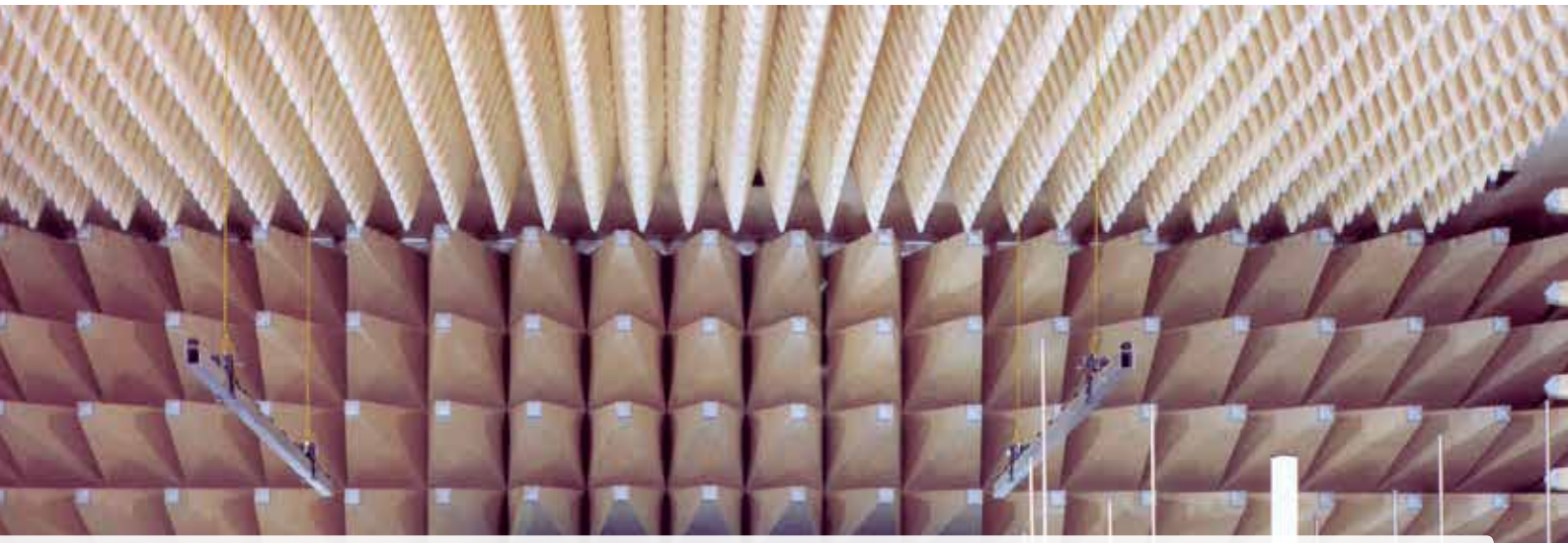
Antenna masts, Turntables, Testing tables, Controller, Shielded audio system, Shielded optical converter, Shielded camera system





FRANKONIA

Content / Index



Accessories for Anechoic Chambers

Manual Antenna Masts 3
FSM 1.6 / 2.0 / 4.0

Fully Automatic Antenna Masts 4
FAM 4 / FAM 6

Electrical Polarization Switch 5
FSM-EP 1

Turntables 5-6
FTM-Series

Freestanding Turntable 7
FTF-0.6-0.3

Controller 8-9
FC-04, FC-05

Low Reflection Testing Tables 10

Shielded Audio System 11
FAS

Shielded Optical Converters 11
FOC

Shielded Camera System for mobile and fixed installation 12-13
FMC-02 / FMC-02 HD

EMC-hardened Optical Transmitters 14-15

Manual Antenna Masts – FSM 1.6 / 2.0 / 4.0

Description FSM-1.6 / FSM-2.0

The height level of the double telescopic antenna masts FSM-1.6 and FSM-2.0 can be manually adjusted from 0.9 / 1.2 m to 1.6 / 2.0 m (depending on the model). The height setting is made within a few seconds. In order to avoid unwanted reflections the mast rods are made of fibre glass. A collapsible tripod provides a secure stand and easy adaption to uneven ground. The perpendicular mast adjustment is simplified with a spirit level mounted at the tripod. A rotatable spider fixes the tripod legs for easy movement within seconds by one person only. Antennas can be mounted directly on the 3/8" male thread or by the use of adapters for double stacked antennas. Automatic change of the antenna polarization is possible by means of our electrical polarization switch, type FSM-EP1 (please find a detailed description on page 5).

Technical specifications	FSM-1.6	FSM-2.0
Height range	0.9 – 1.6 m	1.2 - 2.0 m
Antenna or adapter mount	3/8" male	
Material mast	fibre glass	
Recommended adapters	MAS, MAD	
Weight	6 kg	7 kg
Dimensions for transport (L x W x H)	1.0 x 0.3 x 0.3 m	1.2 x 0.3 x 0.3 m

Technical specifications	FSM-4.0
Height scan	with manual winch
Height scanning range	0.4 – 4.15 m
Required time for complete height scan	< 8 s
Required time for mast assembly	< 2 min
Antenna mount	22 mm with index ring
Mast material	fibre glass
Tripod material	zinc-plated steel
Costed option	fibre glass
Maximum antenna weight	5 kg
Total weight	13 kg
Tripod leg circuit diameter	2.06 m
Dimensions for the transport (L x W x H)	1.17 x 0.3 x 0.3 m

Description FSM-4.0

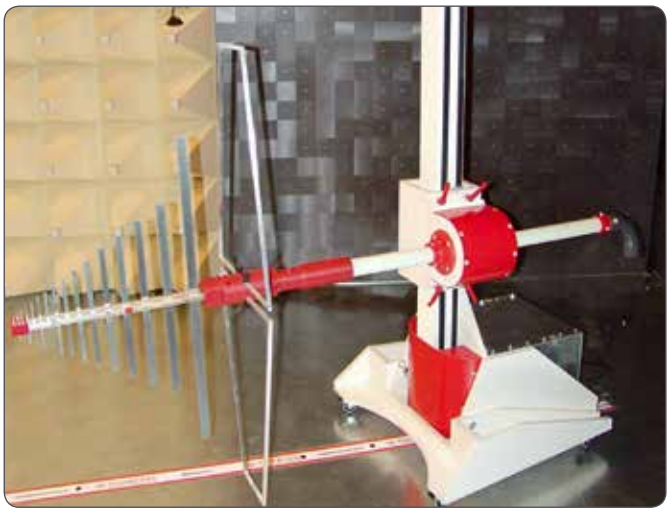
The main applications of FSM-4.0 are emission measurements, where frequent height scans are required. Level adjustment from 0.4 m to 4.15 m can easily be done by using the manual winch. The mast can be set up and disassembled without any tools within 2 minutes. The FSM-4.0 tripod is suitable for both stationary and mobile applications. Thanks to its small transport dimensions it can be stored without problems even in small cars. The antennas are mounted with their 22 mm tube directly to the support. The polarization is fixed with an indexing ring for both, vertical and horizontal polarization without tools. There is no additional adapter needed to fix antennas with 22 mm tubes. Each of the three spider legs can be adjusted individually for a coarse level adjustment on uneven or inclined mounting surfaces.

Fully Automatic Antenna Mast – FAM

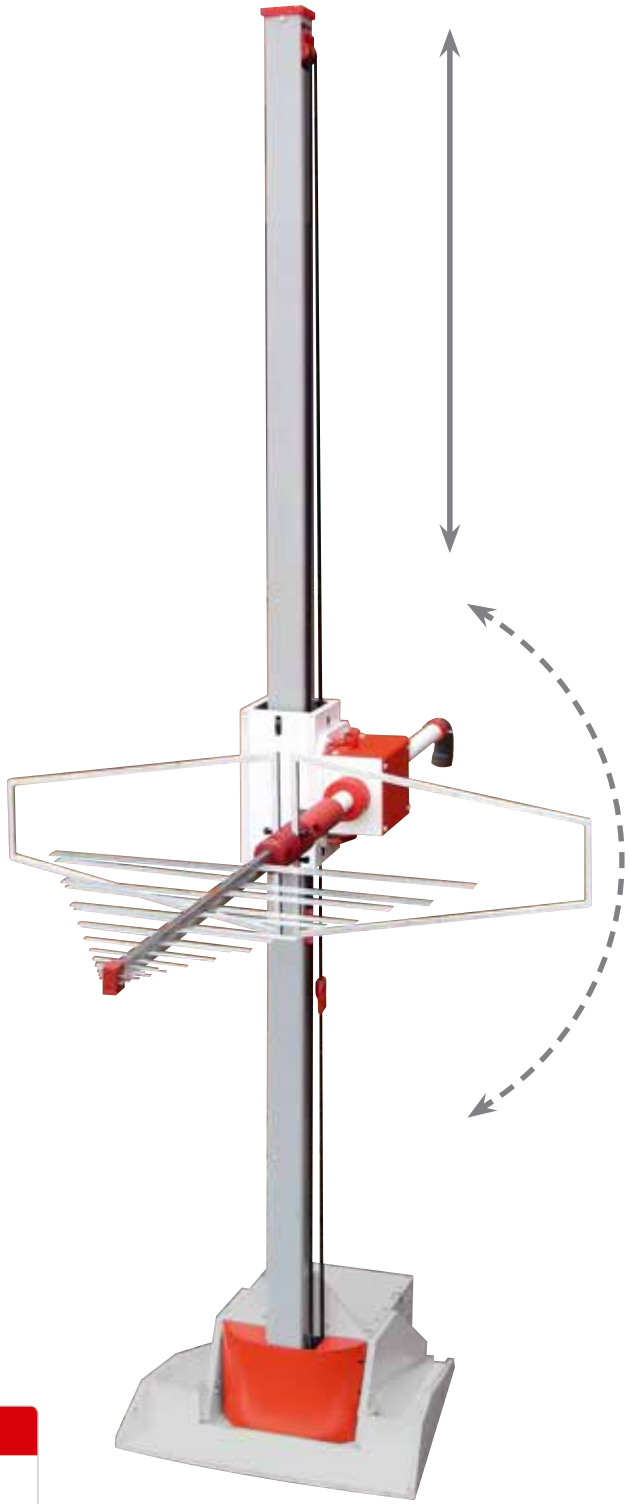
Description

Frankonia's innovative range of positioning devices is entirely compatible with the EMC chamber environment.

Using a new optical communication bus, the system provides the possibility to control up to 15 devices along a single duplex fibre optic.



FAM 4 – Antenna Mast Detail



Main characteristics:

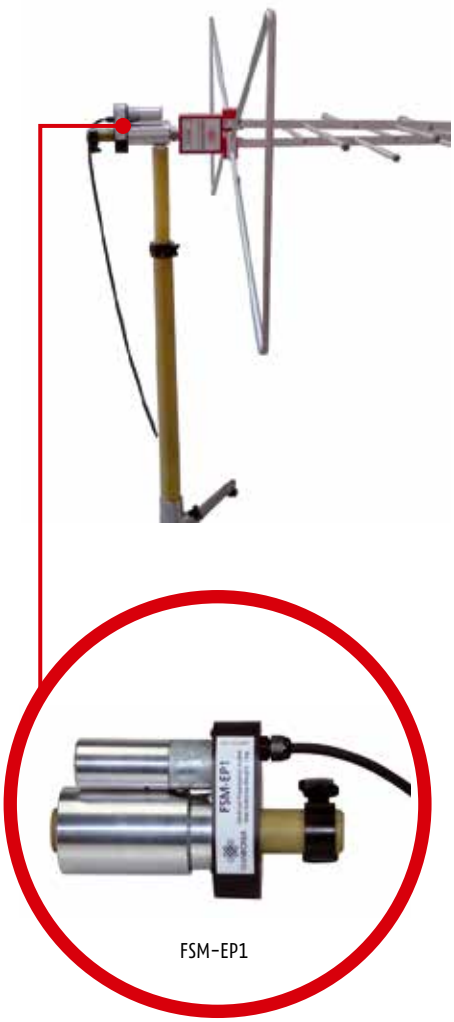
- **Vertical accuracy 5 mm**
- **Resolution 1 mm**
- **Polarization accuracy 0.2°**
- **30 step adjustable vertical speed from 0.01 m/s to 0.50 m/s**
- **Fully automatic calculation of acceleration and deceleration ramps according to the weight of the antenna**
- **Manual tilting +/- 5°**
- **Mast positioning from 1.00 m to 4.00 m / 6.00 m**
- **Low noise, completely shielded hardware**
- **Frankonia optical communication bus**
- **Remote-controlled by controller type FC-04**

Technical specifications	FAM 4	FAM 6
Antenna height	1.0 m - 4.0 m	1.0 m - 6.0 m
Max. antenna weight (incl. adapter)	12 kg	
Counterbalance	2 x 3 kg (depending on used antenna type)	
Polarization time	0.01 m/s - 0.50 m/s	
Dimensions (L x W x H)	760 mm x 800 mm x 4,200 mm	
Weight	95 kg	
Power supply	230V, 50/60 Hz, 4A	

Available Sizes	
FAM 4	Frankonia Antenna Mast for 4.0 m height scan
FAM 6	Frankonia Antenna Mast for 6.0 m height scan

Electrical Polarization Switch – FSM-EP1
Turntables – FTM-Series

for flush mounted installations in anechoic chambers



FSM-EP1

Main characteristics FSM-EP1

- Electrical polarization swivel adapter for remote controlled change of antenna polarization
- Compatible with all antenna masts with 3/8" thread (i. e. our type FSM)
- Power supply is provided by new series of Frankonia turntables, e.g. FTF-0.6-0.3 or by optional available power supply unit

Technical specifications	FSM-EP1
Antenna tube fixture	22 mm
Max. antenna weight	5 kg
Mast mount	3/8" female
Power supply	12 VDC ± 25%, 150mA provided by our new turntable series or by optional available power supply unit 5m shielded cable Neutrik cable connector NC3FXX
Recommended accessory	FSM-1.6 or any tripod with 3/8" thread

FTM-Turntables with electrical contact to the ground plane of semi-anechoic chambers or with intermediate table for fully-anechoic chambers

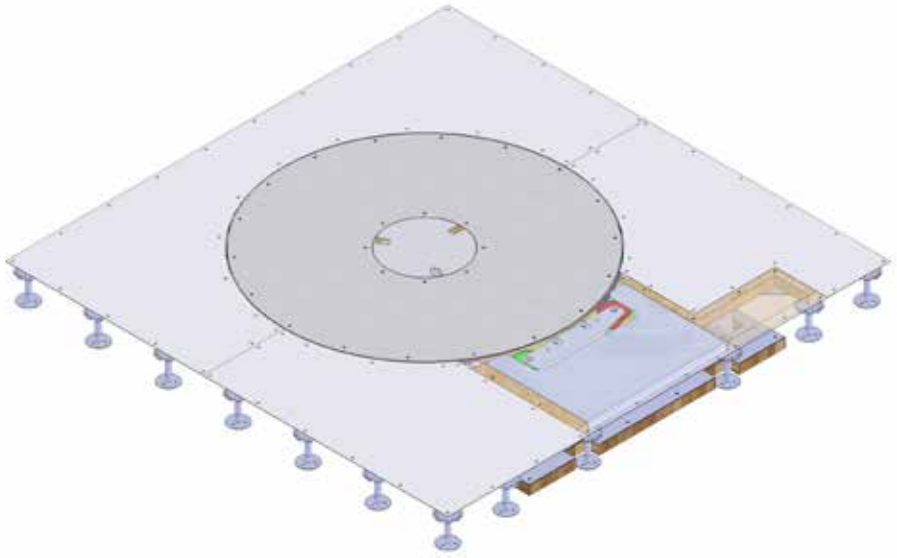
Frankonia offers a wide range of turntables which are fully compliant with the EMC chamber environment. The turntables are available in different sizes and with different options.

Details:

- Fully automated speed variation
- Automatic reference research
- Offset possibility
- Adjustable software limits
- Frankonia high conductivity grounding-ring
- Frankonia optical communication bus

Turntables – FTM-Series

for flush mounted installations in anechoic chambers



Turntable integrated into a raised floor

Technical specifications	
Diameter	1.50 m - 10.00m
Load	500 kg - 60 tons
Main characteristics	
Accuracy	0.1°
Resolution	0.1°
Speed	Adjustable in 30 steps (12°/s - 0.5°/s)"
Accessories	
Protective covers for apertures. The central panel is (min. Ø 360 mm) available for any cables and connectors.	

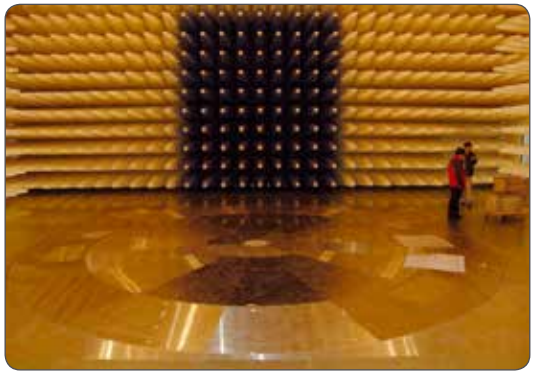
Options like fully integrated rotating connection panels or rotating exhaust systems are available on request.

FTM x - y → x: turntable diameter in meter
y: turntable load capacity in tons

Our current product range covers: FTM 1.50 – 0.50 capacity (1.50m – 500kg) up to FTM 10 – 60 (10 m – 60 tons)

Communication interfaces	
The FTM series can be controlled by several Frankonia controllers.	
FC-04 / FC-05	Automatic controller with GPIB IEEE 488.2 interface
FSOFT	Software for computer control using RS 232 interface

Rotating connection panel



Turntable

Rotating exhaust system

Freestanding Turntable – FTF-0.6-0.3

General

The FTF-0.6-0.3 is a freestanding turntable for use in anechoic chambers. Although the FTF-0.6-0.3 is the smallest model of Frankonia's turntable product range, it has numerous remarkable high end features. Due to the use of a multi turn absolute encoder the position of the turntable is always known – this is the end of any initialization run. The optical output is the simplest solution to add a further device, e.g. an antenna mast. The electric polarization unit FSM-EP1 is available as an accessory for the manual antenna masts FSM. Just connect the FSM-EP1 to the FTF-0.6-0.3. The supply is already integrated.

Main characteristics

- **Stepper motor with integrated closed loop positioning control and multi turn absolute encoder**
- **Optical INPUT for connection to positioning controller or computer via fibre optic cables**
- **Optical OUTPUT for connection to further device e.g. antenna mast**
- **USB-port (for on-site operation)**
- **Central aperture Ø 55 mm for EUT supply**
- **Shielded supply for electric polarization unit FSM-EP1**

Technical specifications	
Diameter	0.6 m or 0.8 m
Weight capacity	300 kg
Height	160 mm incl. (adjustable stand) 152 mm (without stand)
RPM	1/15 to 2 (30 steps)
Angle of rotation	± 360°
Positioning accuracy	better ± 0.5°
Interfaces	Optical input (remote), F-SMA Optical output (additional device), F-SMA USB (on-site), USB-B 3-pole socket (supply of electric polarization unit FSM-EP1)
Power supply	100 - 240 VAC; 50 / 60 Hz
Weiht	39 kg
Accessories	Application software, USB-optical converter, 10 m optical fibre, power supply cable, USB cable

Controller FC-04

Description

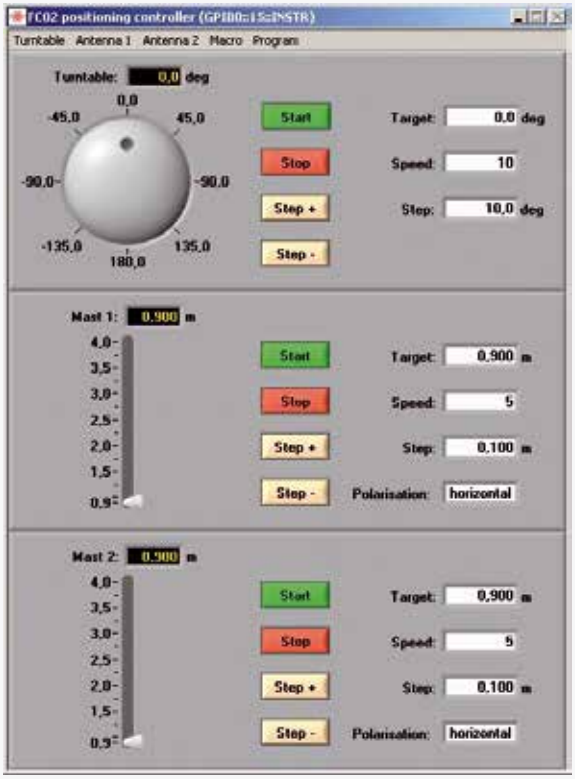
Frankonia developed a complete range of controllers offering very simple control of our positioning devices. In its basic version our controller FC-04 is able to control a turntable and 2 antenna masts (FAM 4 or FAM 6). The communication with the devices is made along a duplex optic fibre (optical bus).

Main characteristics

- Able to control up to 15 devices
- Resolution 0.1°
- Frankonia optic bus system FSMA 660 nm
- Standard programming language SCPI
- Remote interface GPIB (IEEE 488.2) and USB interface
- Flash memory (possiblity to upgrade the firmware via the USB interface)

Technical specifications	
Rack	19“ 1U
Weight	2.5 kg
Dimensions (L x W x H)	482.6 mm x 172 mm x 44.3 mm
Power supply	115 / 230 V – 50 Hz / 60Hz
Frequency	50 Hz / 60 Hz

Application Software:



Microsoft Windows

The application software of the FC-04 is running on Microsoft Windows®.

The Software has two main functions:

1. Real time display of each drive
2. Ability to control all devices via the optical bus

The software uses either the USB interface or the GPIB interface for positioning information. It can be connected to the FC-04 controller for real time display or for controlling two antenna masts and one turntable.

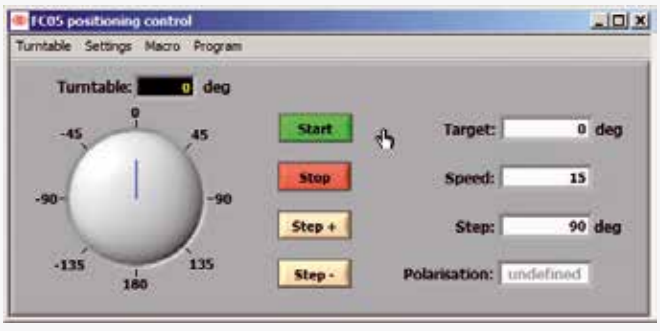
Multi-Device Positioning Controller – FC-05

Main characteristics

- Multi-Device Positioning Controller for simultaneous operation of up to four different positioning units
- Compatible with all new Frankonia antenna masts, turntables and other positioning equipment
- Compatible with industry standard software
- IEEE 488 (GPIB) and USB interfaces

Technical specifications	
Standard programming languages	SCPI
Remote Interface	GPIB (IEEE 488.2) and USB
Optical input/output	660 nm, FSMA connectors
Solenoid valve (optional)	5 / 3 way operating pressure 3.0 – 8.0 bar
Power supply	100 – 240 VAC, 50 / 60 Hz
Dimensions (W x D x H)	482.6 x 172 x 44.3 mm
Weight	3.2 kg
Accessories included	power cord, application software, user manual

Application Software:



Microsoft Windows

The application software of the FC-05 is running on Microsoft Windows®.

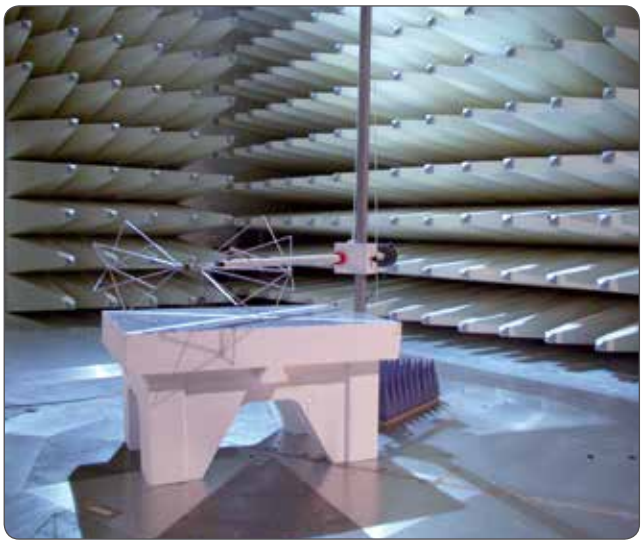
The Software has two main functions:

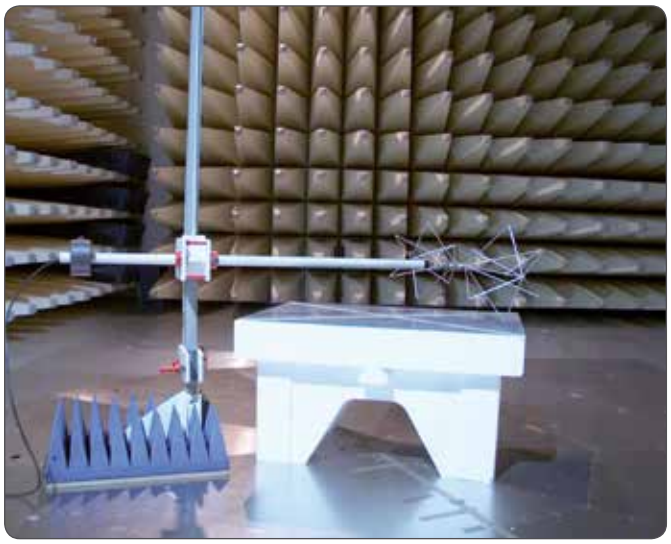
1. Real time display of each drive
2. Ability to control all devices via the optical bus

The software uses either the USB port or the GPIB interface for positioning information. It can be connected to the FC-05 controller for real time display or for controlling two antenna masts and one turntable.

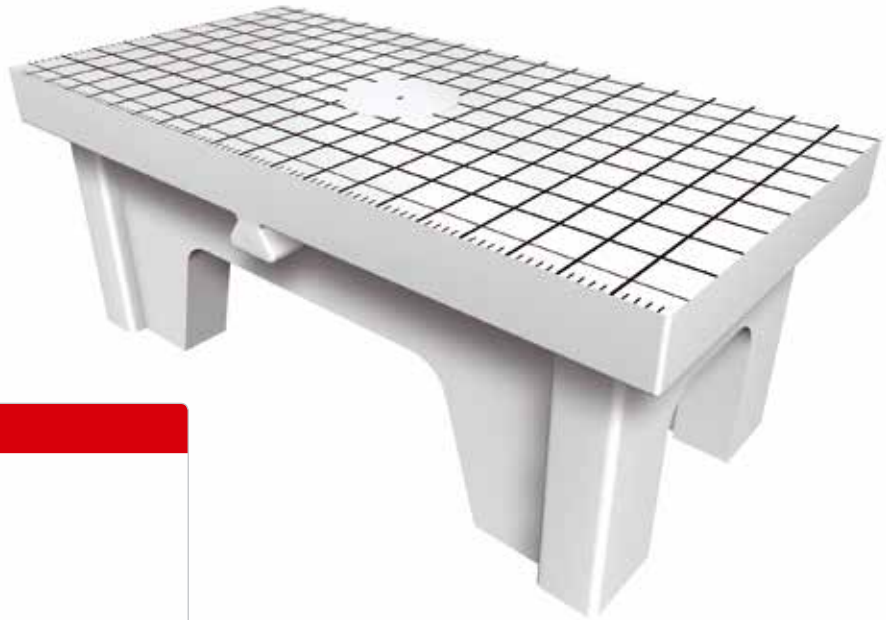
Low Reflection Testing Tables

acc. to CISPR 22





EMC and RF measurements require that the used testing table does not affect the measurements being taken. The EMC testing tables from Frankonia are designed in accordance with CISPR 22 requirements. Frankonia´s low dielectric constant, low reflectance tables are manufactured from a styrene polymer called Styropor ESP 37. The table surfaces are clad in PVC while the grid surface allows accurate positioning of the EUT. In the center of the table is a hole which offers the possibility to feed through customer specific cables to the EUT. When not in use, the hole is covered. The rectangular and round testing tables are available in a wide range of sizes as stated below. The EMC testing tables can support a EUT load of up to 200 kg.

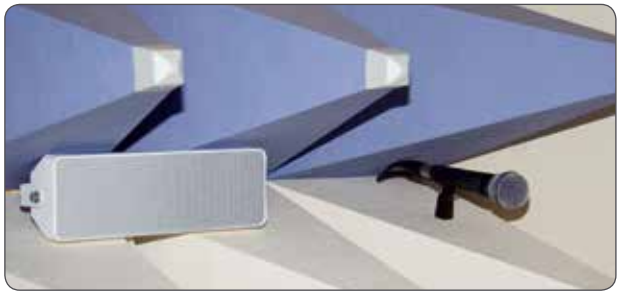


Technical specifications	
Dimensions (L x W x H) Rectangular Round	 1.5 x 1.0 x 0.8 m 2.0 x 1.0 x 0.8 m 1.5 x 1.2 x 0.8 m 2.0 x 1.2 x 0.8 m 1.0 x 0.8 x 0.8 m 1.2 m Ø, 0.8 m (h) 1.5 m Ø, 0.8 m (h)
Material	Styropor ESP37
Max. load	200 kg
Color	light grey (RAL 7035)
Cover material	PVC
Cover hole (center)	250 mm Ø

Shielded Audio Sytem – FAS
Shielded Optical Converters – FOC

FAS 3.0 - Shielded Audio System:

The audio system FAS 3.0 is able to work and guarantee high quality communications in any strong environment during EMI or EMS tests. The FAS 3.0 system is made of passive components inside the chamber, so they are not affected by high field strengths and don't generate any emission according to CISPR22. Developed in collaboration with automotive EMC labs, this system passes successfully all the requirements. Based on high quality components the FAS 3.0 is a full duplex system and guarantees a frequency response closed to HiFi requirements. (Very sensible with a signal/rate > 89 dB and a distortion rate of 0.007 %).
High power speakers are installed into the chamber.



Main characteristics:

- Avoids any interference problems
- Equipped with ultra low noise preamplifier, compressor, expander, feedback destroyer and several adjustable filters
- No batteries are necessary to operate the microphone
- Designed for continuous operation

FOC S – Shielded Box for Optical Converters

Frankonia integrates any type of optical converters according to your request.

In order to avoid the generation of any additional noise when installing such equipment into a chamber, Frankonia delivers the part of optical converter into a shielded and filtered universal box located under the ground plane of the chamber.

For signals crossing the shielding where filters are not available:

- IEEE 488.2
- USB 1 or 2
- Ethernet 10-100-1000BT
- FireWire
- Keyboard, video, mouse of a computer
- HDMI
- DVI
- Etc ...

Shielded Camera System – FMC-02 / FMC-02 HD

for mobile and fixed installation

Sophisticated control

The FMC offers full remote control possibilities available on the front panel of the controller or via joystick. In order to facilitate the camera setup, all camera commands are also available on the rear side of the camera module. The display adjustment can be controlled on a removable mini LCD screen powered by the camera itself.

General description

The FMC can be used for optical and acoustical monitoring of devices under test during EMC measurements. The camera can be set via an external setup LCD and eight buttons on the case or via remote control. With the optical transmission and the shielded case, the camera is well equipped for EMC tests.

Technical specifications

Camera	FMC-02	FMC-02 HD
General data	36 x optical zoom	20 x optical zoom (20 x digital)
	local and remote controlled focus, brightness function, short range LED-light, color PAL-system, NTSC available on request, etc.	
Optical transmission	digital	
Optical characteristics	F= 3.4 mm (WIDE) – 122.4 mm (TELE)	F= 4.7 mm (WIDE) – 94 mm (TELE)
Perspective	ca. 57.8° (WIDE end) – 1.5° (TELE end)	ca. 55.4° (WIDE end) – 2.9° (TELE end)
Operating range	320 mm (WIDE end) – 1500 mm (TELE end)	10 mm (WIDE end), 800 mm (TELE end)
Image format	PAL 4:3, color	PAL 16:9, color
Resolution	440 K Pixel	~2M Pixel
Microphone	internal, mono (optional stereo)	
Power supply	external 12V (battery pack or mains adapter, shielded)	
Case dimension	130 mm x 70 mm x 80 mm incl. connectors and switches (L x W x H), shielded aluminium case	
Weight	approx. 700 g	
Mounting	1/4 " tripod socket at case bottom, other threads available	
Miscellaneous	remote control of all camera functions and pan-/ tilt unit, set-up display for easy adjustment of camera stereo line, transmission, 3.5 mm plug, illumination, different types of receivers available, (one or more channels, VGA, OSD, switch matrix, etc.)	
Connector / Type	FSMA / simplex-multimode optical fibre 62.5 / 125 µm	

Battery pack, camera module and additional removable mini LCD monitor

FMC including pan- / tilt unit

PC-Recorder / Webserver

Shielded Camera System – FMC-02 / FMC-02 HD

for mobile and fixed installation

Accessories		Standard	Option
FBC	Table top camera controller, base unit with 1 interface, remote control of camera functions via push buttons or software (standard) 100 – 240 V, (50/60 Hz) external power supply	X	
FRC3-02	19" camera controller (1 HU) for max. 3 cameras (3 interfaces); interface for joystick, interface for software control, operated via external PC, USB / RS232		X
FRC7-02	19" camera controller (2 HU) for max. 7 cameras (7 interfaces); interface for joystick, interface for software control, operated via external PC, USB / RS232		X
LWL-VGA	Digital optical channel with standard resolution. Up to 3 units integratable in FRC3-02, up to 7 units integratable in FRC7-02; optical connector FSMA; output connector: CVBS + VGA; stereo audio RCA	X	–
FAD-02	3.5" set-up LCD display, to be used for camera set-up and installation before testing, incl. connection cable	X	
FBP-02	Battery pack for external power supply	X	
Power supply	NiMH-battery with 10 cells, 12 V, 4 Ah, approx. 10 h		
Connector / Type	5 pole, female		
Dimensions & Weight	136 mm x 86 mm x 65 mm (L x W x H), 1 kg, shielded aluminium case with rubber protectors		
Included items	2 pcs. battery pack, set of cables and fibres, battery charger, manual		
FPS-02	Shielded mains adapter, power supply needed mainly for permanent installation		X
Power supply	Input: 100 VDC – 240 VDC, 50/60 Hz, Output: 12 V, 1 A		
Connector / Type	rubber connector, 5 pole, female		
Dimensions & Weight	136 mm x 86 mm x 65 mm (L x W x H), ca. 800 g		
Included items	cable 3 m, 5 pole (male) – 3 pole (female), rubber connector, manual		
FPT-02	Pan-/ tilt unit	X	
Power supply	via camera FMC-02 (FMC-02 HD) (4 pole, female)		
Connector / Type	binder series, male 4 pole – male 4 pole		
Standard range	+/- 45° / 90° vertical / horizontal, others on request – depending on place of installation, final position programmable		
Dimensions & Weight	ca. 65 mm x 75 mm x 100 mm (L x W x H) + mounting angle, ca. 700 g		
Included items	mounting angle, shielded connection cable with folding ferrites (length: 35 cm)		
15540	Recorder / Webserver for simultaneous recording of up to 4 camera signals		X
	subsequent post-production is not possible; image format PAL 4:3; remote control via software		
Record carrier	500 GB hard disk, export of data via USB / network		
Connector / Type	4 x BNC, analog, PAL, USB, network RJ45 (10 /100 MBit)		
Power supply	external, Input: 230 VAC, 50/60 Hz, Output: 12 VDC/ 5 A		
Dimensions & Weight	270 mm x 370 mm x 70 mm (L x W x H), ca. 1.75 kg		
Included items	mains adapter, USB mouse, BNC cinch adapter (1 per camera), manual		
FACR4-02	PC – Recorder / Webserver for simultaneous recording of up to 4 camera signals		X
	subsequent post-production via software is possible; image format: 16:10		
Record carrier	500 GB hard disk, additional audio hard disk 1000 GB, DVD-RW		
Connector / Type	USB, network, DVD-RW		
Power supply	Input: 100 – 230 VAC, 50/60 Hz, rubber connector		
Dimensions & Weight	4 HU – suitable for 19"-rack installation, 8 kg		
Included items	mouse, keyboard, rubber connector, manual		
FACR8-02	PC- Recorder / Webserver for simultaneous recording of up to 4 camera signals		X
	subsequent post-production via software is possible; image format: 16:10		
Record carrier	500 GB hard disk, additional audio hard disk 1000 GB, DVD-RW		
Connector / Type	USB, network, DVD-RW		
Power supply	Input: 100 – 230 VAC, 50/60 Hz, rubber connector		
Dimensions & Weight	4 HU – suitable for 19"-rack installation, 8 kg		
Included items	mouse, keyboard, rubber connector, manual		
FACR1-02-HD	PC- Recorder / Webserver for recording of full-HD camera signals		X
	subsequent post-production via software is possible; image format: 16:10		
Record carrier	500 GB hard disk, additional audio hard disk 1000 GB, DVD-RW		
Connector / Type	USB, network, DVD-RW		
Power supply	100 – 230 VAC, 50/60 Hz		
Dimensions & Weight	4 HU – suitable for 19"-rack installation, ca. 8 kg		
Included items	mouse, keyboard, rubber connector, manual		
Monitor	19" colour screen with VGA input		X
AS-02	Wooden camera tripod, height: 75-177 cm, 1/4" thread, weight: 3 kg	X	
Wall holder	Wall holder		X
Miscellaneous	Feed-through for fibre optics	X	
	Simplex optical fibre (62.5 / 125 µm), length 20 m, FSMA-FSMA	X	

EMC-hardened Optical Transmitters

for application at immunity tests and emission measurement

LWL-CANx2-HS*

Description

EMC-hardened optical transmitters are necessary for the data transfer within or into RF-shielded rooms/anechoic chambers during emission measurements or radiated immunity tests. The optical data transmission ensures safe communication between inside/outside of a shielded room without any disturbances transferred via cables and without any influence to peripherals during radiated immunity tests. We offer optical transmitters for nearly any application.

Technical specifications	
LWL-D8	Optical 8-channel digital transmission (optional bi-directional), adjustable threshold
LWL-dAV	Digital optical transmission of analogue A/V-signals, optional miniature camera connectable
LWL-dAV-R	Receiver for digital optical transmission of analogue A/V-signals
LWL-dAV-R-Rf	Receiver for digital optical transmission of analogue A/V-signals with TV-RF-output
LWL-dAV-T	Transmitter for digital optical transmission of analogue A/V-signals
LWL-D-HS	Optical 1 to 4 channels high speed digital signal tranmission, up to 30 MHz, 3.3V tp + 5 V adjustable
LWL-F2V-100	Exchanger frequency signal => Voltage signal; 4 frequency ranges selectable up to 100 kHz
LWL-Heat	Temperature monitoring with optical output, -50 °C to + 500 °C, (optionally -200 °C to 1200 °C)
LWL-LVDS-SM_	20-1 20-channel LVDS-switching matrix, up to 2 Gbit/s
LWL-1394	Optical fire wire transmission, up to 400 Mbit/s (optionally up to 800 Mbit/s)
LWL-232-HS	Optical RS232-transmission, up to 115 kbit/s (optionally up to 1 Mbit/s)
LWL-485	Optical RS485-transmission, up to 1 Mbit/s
LWL-CANx2-HS	Optical 2-channel CAN-HS (high speed)-transmission , up to 1 Mbit/s
LWL-CAN-HS	Optical 1-channel CAN-HS (high speed)-transmission, up to 1 Mbit/s
LWL-CAN-LS	Optical 1-channel CAN-LS (low speed)-transmission, up to 125 kbit/s
LWL-CAN-SW	Optical 1-channel CAN-SW (single wire)-transmission, up to 33 kbit/s (100 kbit/s)
LWL-CML	Optical transmission of Video-signals (chip set: MAX 9259/9260), up to 2.5 Gbit/s
LWL-Flex	Optical transmission of Flexray-signals, up to 10 Mbit/s
LWLK	Optical transmission of Kline-signals (ISO 9141), min. 30 kbit/s
LWL-LAN	Optical transmission of Ethernet-signals (10 / 100 Mbit/s)
LWL-LIN	Optical transmission of LIN-signals, up to 20 kbit/s
LWL-LVDS-1-ds	Optical transmission of single-channel LVDS-signals (chip set: DS90UR124/241), up to 1.5 Gbit/s

* x = number of channels

Technical specifications	
LWL-LVDS-1-ds-LIN	Combination of LWL-VDS-1-ds and LWL-LIN
LWL-LVDS-4	Optical 1 to 4-channel transmission of independent LVDS-signals, up to 1.5 Gbit/s, DC-balanced
LWL-LVDS	Optical 3+1 Clk channel transmission of LVDS-signals, DC/Non-DC-balanced, Single-channel
LWL-PSI5	Optical transmission of PSI5-signals, up to 200 kbit/s, sync-, parallel-, or serial-bus
LWL-Quad	Optical 1 to 4-channel transmission, up to 1 Mbit/s Quadrature-signals (optionally bi-directional)
LWL-SENT	Optical transmission of SENT-Signals, up to 1 MHz, integrated sensor supply 5V
LWL-SENT-2-d	Optical 2-channel transmission of SENT-signals, up to 1 MHz, sync, integrated sensor supply 5 V
LWL-SPI	Optical transmission of SPI-signals, up to 1 Mbit/s, integrated sensor supply 3,3 V / 5 V
LWL-SPI-hs	Optical transmission of SPI-signals, up to 10 Mbit/s, integrated sensor supply 3,3 V / 5 V
LWL-SSI	Optical transmission of SSI-signals, up to 1 Mbit/s
LWL-TTL	Optical 16-channel transmission of TTL-signals, (optionally bi-directional), up to 100 kHz, 3.3 V / 5 V
LWL-UART-d	Optical transmission of bi-directional UART-signals (Rx+Tx), up to 20 kbit/s
LWL-USB2.0	Optical transmission of USB2.0-signals, up to 480 Mbit/s
LWL-U1-8	Optical transmission of analogue signals, min. 8 bit resolution, up to 50 MHz
LWL-U1-12-20k	Optical transmission of 1-channel analogue signals, without external power supply, up to 20 kHz
LWL-U1-14	Optical transmission of 1-channel analogue signals min. 10 bit resolution, up to 10 MHz
LWL-U1-14-30	Optical transmission of 1-channel analogue signals, min. 10 bit resolution, up to 30 MHz, +/- 1V input
LWL-U1-14i	Optical transmission of 1-channel analogue signals, min. 10 bit resolution, up to 10 MHz, additional range of gain: 100 / 1000 with 100 kHz
LWL-U2-8	Optical 2-2-channel transmission for analogue signals, min. 8 bit resolution, up to 20 MHz
LWL-U2-12	Optical 2-channel transmission of analogue signals, min. 10 bit resolution, up to 10 MHz
LWL-U2-14-1M	Optical 2-channel transmission for analogue signals, min. 10 bit resolution, up to 1 MHz
LWL-U8-12	Optical 8-channel transmission of analogue signals, min. 10 bit resolution, up to 1 MHz
LWL-U16-12	Optical 1.16-channel transmission of analogue signals, min. 10 bit resolution, up to 100 kHz;

Copyright © by Frankonia EMC Test-Systems GmbH, 11-2012 / English Version 3.0

FRANKONIA

Frankonia EMC Test-Systems GmbH
Daimlerstraße 17, 91301 Forchheim
Germany

Web. www.frankoniagroup.com
Mail. sales@frankonia-emv.com

Tel. +49 (0) 91 91 / 73 666 - 0
Fax. +49 (0) 91 91 / 73 666 - 20

Frankonia GmbH
Industriestraße 16, 91180 Heideck
Germany

Web. www.frankoniagroup.com
Mail. info@frankoniagroup.com

Tel.: +49 (0) 91 77 / 98 - 500
Fax: +49 (0) 91 77 / 98 - 520