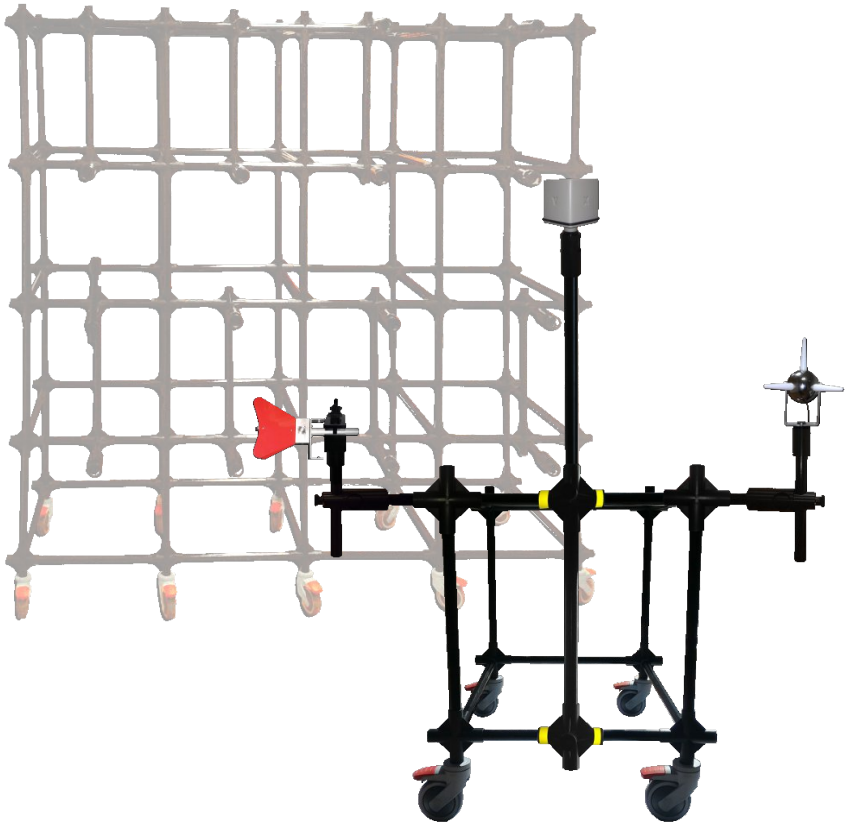
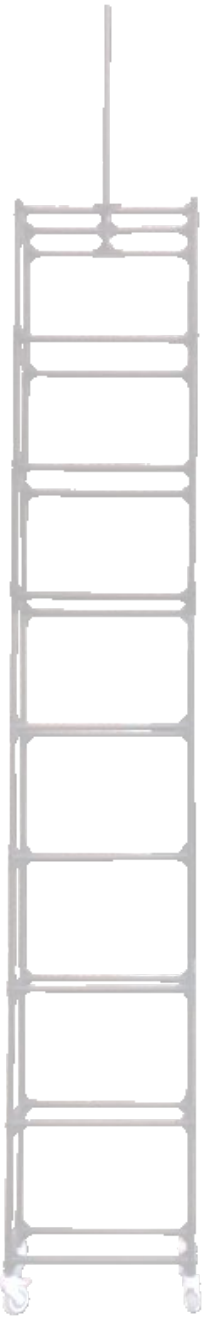
NMR-CUBE

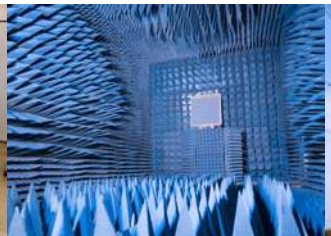
NON-MAGNETIC NON-REFLECTIVE MODULAR FRAMEWORK





The NMR-cube is a modular, adjustable, expandable and robust framework, for the support of sensors and antennas in environments where no metallic or reflective materials are allowed. Entirely made of fiberglass tubes, with PVC junctions and delrin supports, this non-magnetic and non-reflective system, does not affect the measurement of the emitted field.

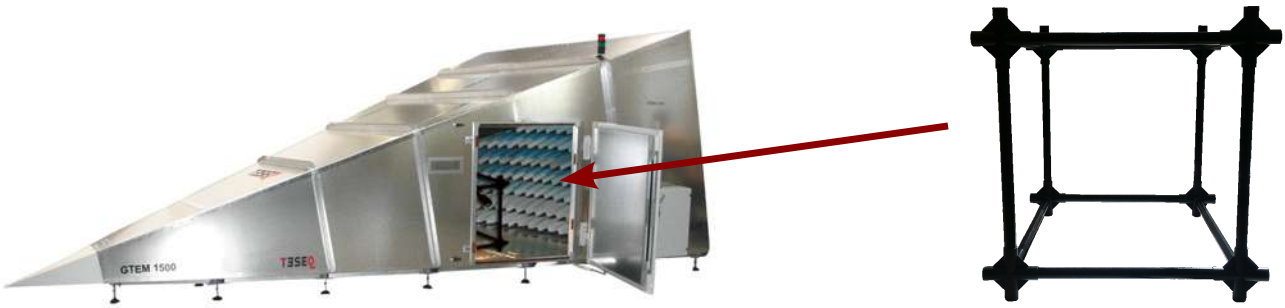
The NMR-CUBE allows the easy mounting of sensors or antennas through simple adjustments on the three axes, enabling the desired positioning for infinite measurement needs and configurations.



CONFIGURATIONS

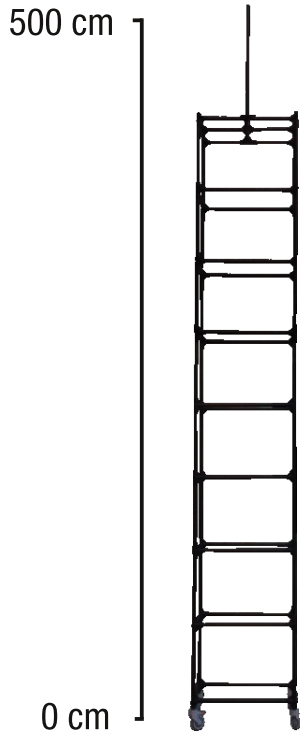
- CUBE 1

In its standard framework, the NMR-CUBE can be used as a support for sensors inside a GTEM cell. The various possible configurations and its composition, that does not affect the measurement, make the cube a practical choice for repetitive measures, where a predefined position is required.



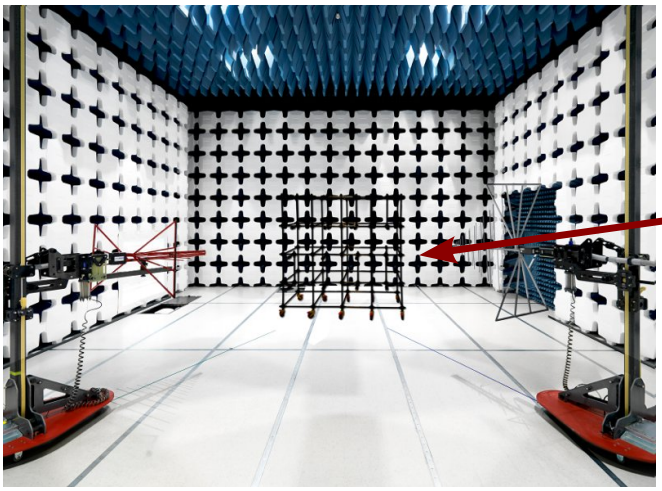
- CUBE 8

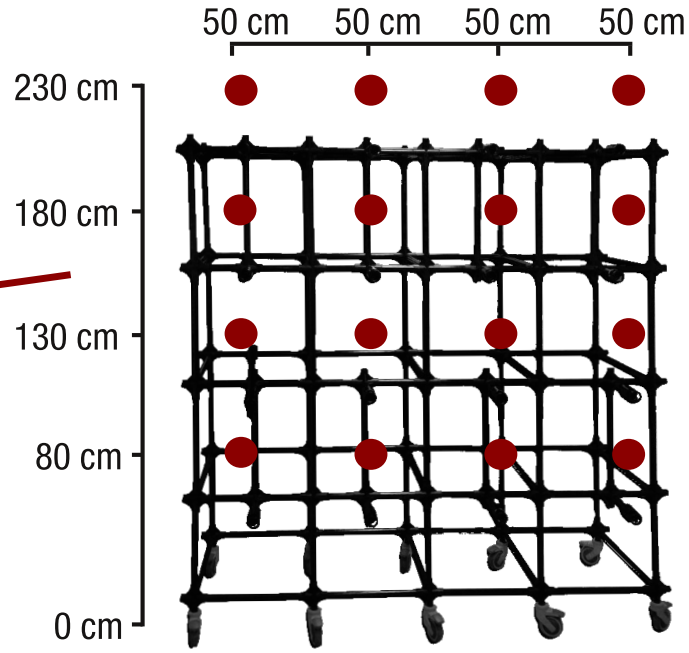
In its tower framework, the NMR-CUBE can be used as support for sensors up to five meters high. The reachable height depends on the weight of the sensor to be supported. Also this configuration enables the sensor's positioning at a preferable height.



- CUBE 16

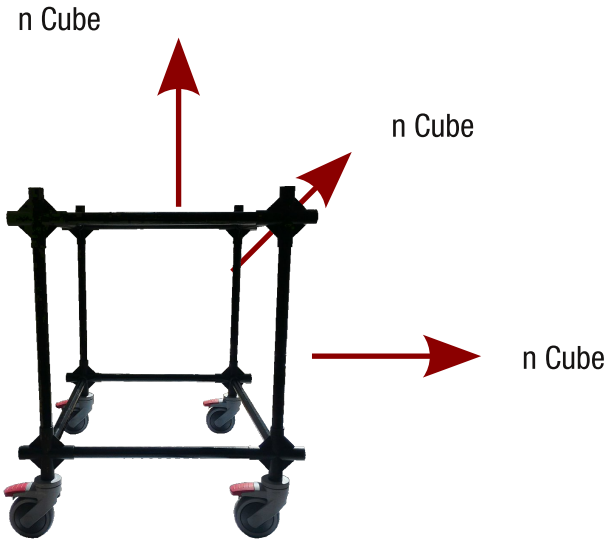
Through the 16 points framework, it is possible to perform the field uniformity measurement according to IEC EN 61000-4-3.





- CUBE n

The mechanical structure of the NMR-CUBE allows combining infinite configurations, thanks to the compatibility with all the accessories from the NMR product family (see page 8). On each axes it is possible to add a n number of cubes and fixing systems.



FIXING SYSTEMS

NMR-FS1
Composed by UNI+TT182
Hooking for fixing sensors and antennas (length 182 mm).

NMR-FS2
Composed by UNI+TT226
Hooking for fixing sensors and antennas (length 226 mm).

NMR-FS3
Composed by UNI+TT255
Hooking for fixing sensors and antennas (length 255 mm).

NMR-FS4
Composed by UNI+TT307
Hooking for fixing sensors and antennas (length 307 mm).

NMR-FS5
Composed by UNI+TT400
Hooking for fixing sensors and antennas (length 400 mm).

NMR-FS6
Composed by UNI+TT470
Hooking for fixing sensors and antennas (length 470 mm).

NMR-FS7
Composed by UNI+TT650
Hooking for fixing sensors and antennas (length 650 mm).

NMR-FS8
Composed by UNI+TT790
Hooking for fixing sensors and antennas (length 790 mm).

NMR-FS9
Composed by UNI+TT900
Hooking for fixing sensors and antennas (length 900 mm).

NMR-FS10
Composed by BLK+TT182
Hooking for fixing sensors and antennas. Through the BLK, it is possible to hook tubes up to 50mm.

NMR-FS11
Composed by ARJ+UNIC+TT182+TT400
Hooking for fixing sensors and antennas. Through the UNIC, it is possible to adjust the height.

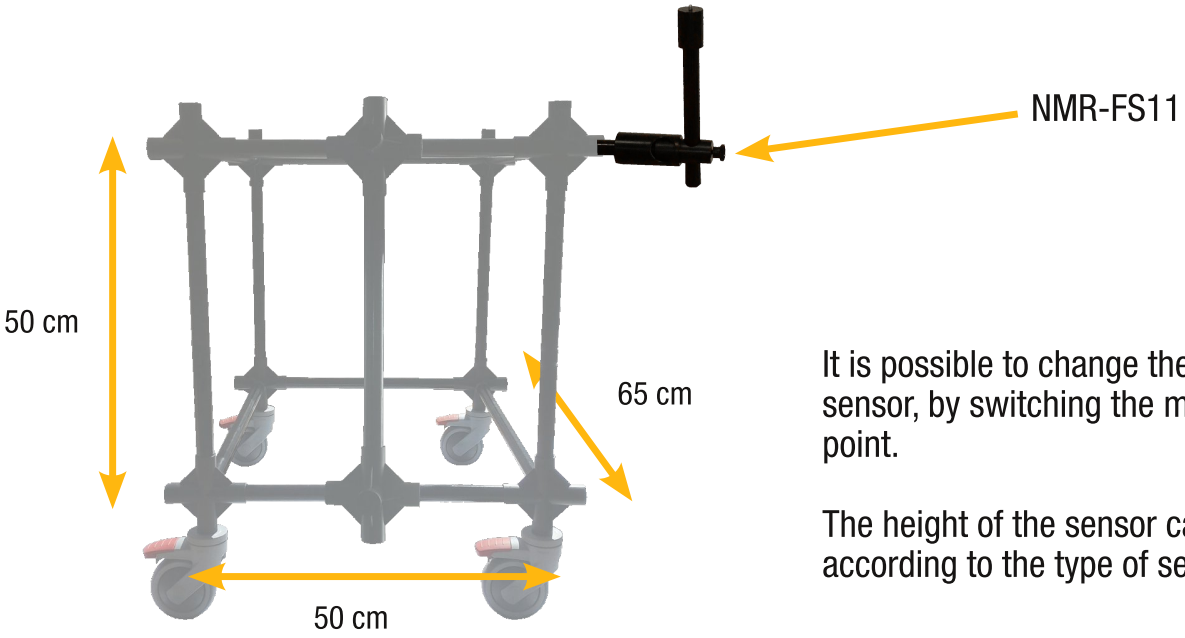
NMR-FS12
Composed by ARJ+UNIC+BLK+TT182+TT400
Hooking for fixing sensors and antennas. Through the UNIC, it is possible to adjust the height. Through the BLK, it is possible to hook tubes up to 50mm.

NMR-FS13

Composed by 2*ARJ+UNIC+BLK+TT182+TT400
Hooking for fixing sensors and antennas. Through the UNIC, it is possible to adjust the height. Through the BLK, it is possible to hook tubes up to 50mm. Through the ARJ, it is possible to switch the configuration.

POSITIONING

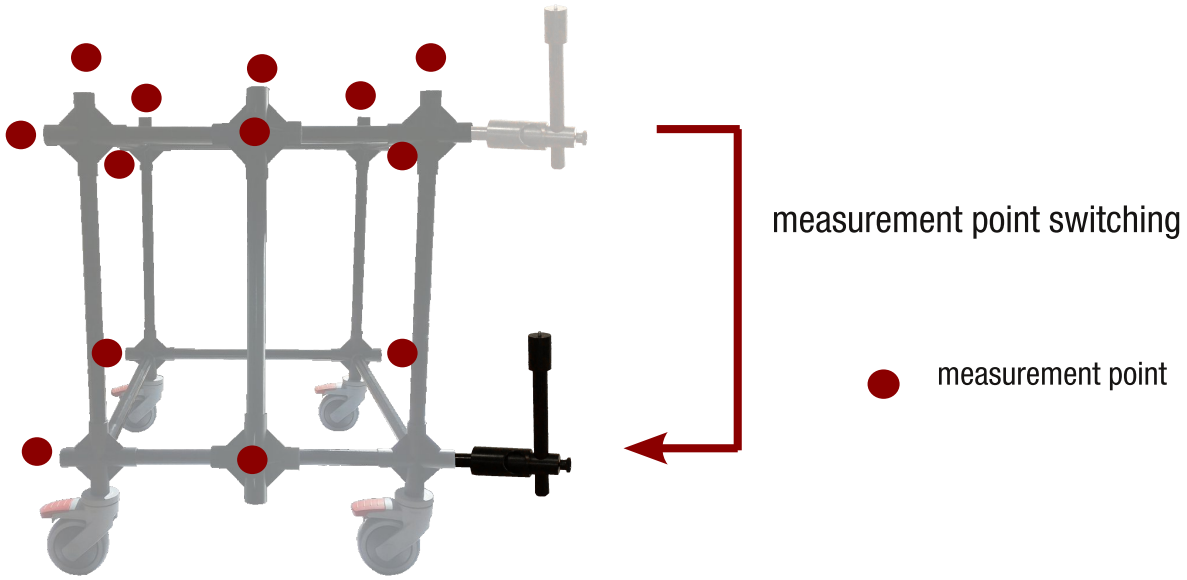
The MPB NMR-FS11 fixing system (complete list at page 4) can be positioned in all points indicated by the red dots in the bottom.



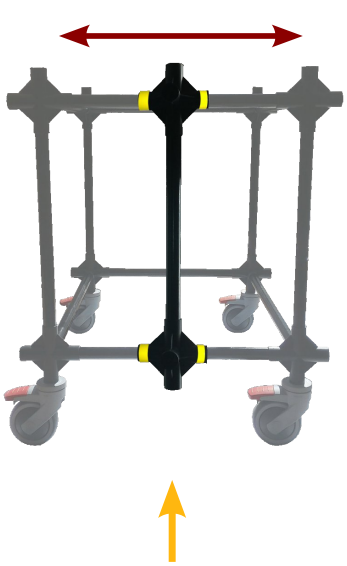
It is possible to change the position of the sensor, by switching the measurement point.

The height of the sensor can be adjusted according to the type of sensor used.

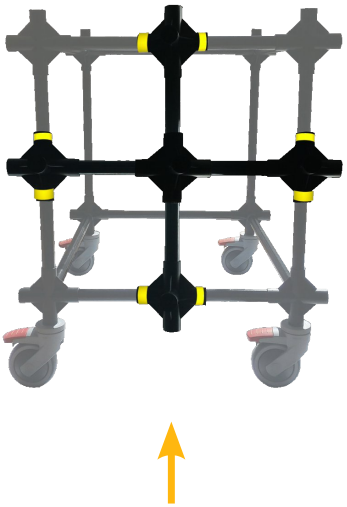
The wheels enable the movement of the NMR-CUBE but, at the same time, they can be locked up through the brakes to mantain the cube on the desired position.



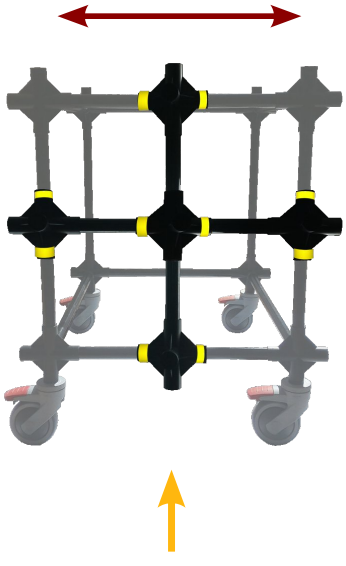
The cube has two different sides: one is 50x50cm, one is 50x65cm.
Through the joint 50 series, that can be positioned on all the 50x50cm sides of the cube, the sensor or antenna can move sideways, according to the user's needs.



SLIP JOINT 50

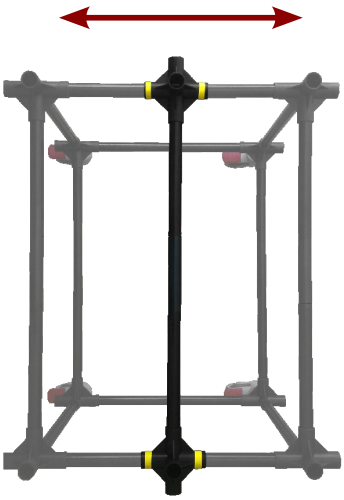


FIXED CROSS JOINT 50

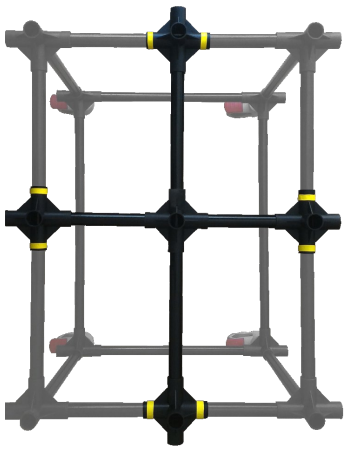


SLIP CROSS JOINT 50

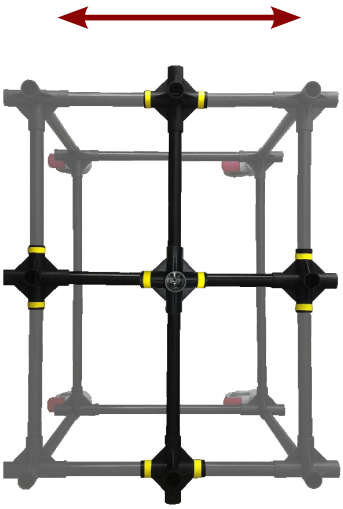
The 50x65 cm sides instead mount the joint 65 series.



SLIP JOINT 65



FIXED CROSS JOINT 65



SLIP CROSS JOINT 65

ACCESSORIES

NMR-BLK

Completely Delrin and Nylon made, the BLK block system allows the fixing of several antenna types. Thanks to its features, including the possibility to flip the lock bracket, both the vertical and the horizontal polarizations are allowed. Also, the ¼ '' threading makes it compatible with the most of the tripod models.

NMR-ARJ

Delrin-made positioner, compatible with all the ¼ '' insert tripods. It allows the MPB fast connection, facilitating and fastening the grafting of the meter on the tripod or framework, both in vertical and horizontal configurations.

NMR-UNI

This instrument with the ¼ '' insert is the adapter between the classic photographic threading and the MPB NMR-01 threading. Thanks to this support, combined with the NMR-ARJ, it is possible to use the fast connection, fastening the positioning and the support of the measuring instrument.

NMR-UNIA

Allows more complex configuations with ARJ, BLK, UNI and TT900. Also, thanks to the knob, it is possible to block the outreach rod, in order to avoid rotations.

NMR-UNIB

Allows the connection to an outreach (TT900) in order to support a meter, and/or an antenna. Thanks to this, it is possible to set up a monitoring station with multiple data acquisition points.

NMR-UNIC

Enables a faster and easier hooking to the ARJ, allowing complex configurations together with other accessories. Its fixing system enables the height adjustment of the TTs.

NMR-TT182, TT226, TT255, TT307, TT400, TT470, TT650, TT790, TT900

Telescopic outreach of different lengths (182/226/255/370/400/470/650/790/900 mm) with MPB thread.

JOINT

PVC joint for fixing up to 5 fiberglass tubes positioned at 90° with each other. Each hole can be also used to mount a fixing system.

SLIP JOINT

PVC joint for fixing up to 5 fiberglass tubes positioned at 90° with each other. Each hole can be also used to mount a fixing system. The yellow-indicated holes enable the passing of the rods for various configurations.

NMR-T182, T226, T255, T307, T400, T470, T650, T790, T900

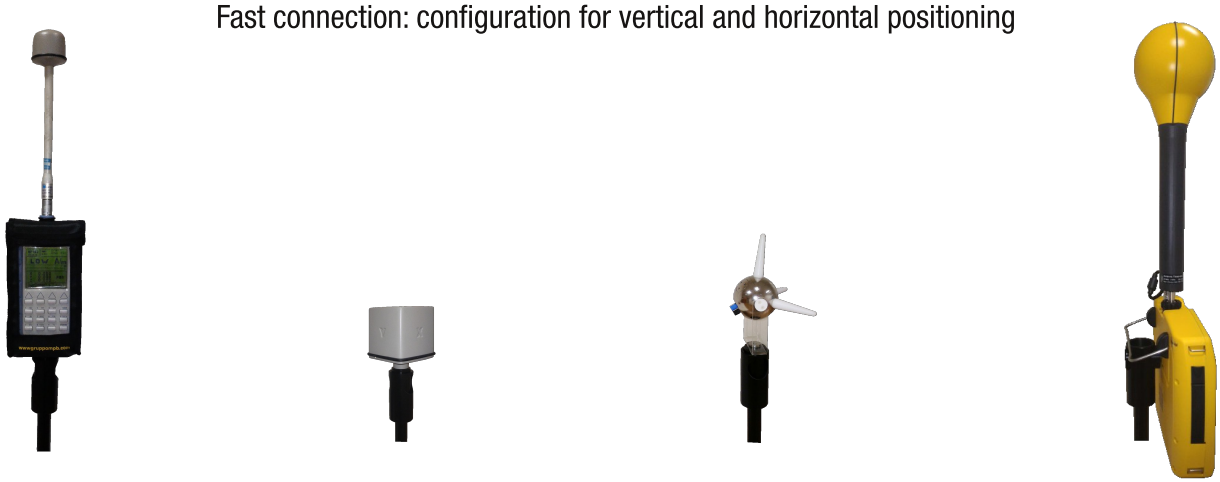
Fiberglass tubes (182/226/255/307/400/470/650/790/900 mm) for different configurations and fixing systems

ACCESSORIES CONFIGURATIONS

- FAST CONNECTION (ARJ + UNI)

These two accessories combined allow a fast and easy positioning of every device with a ¼ '' threading. The double hole of the ARJ allows setting the instrument in both vertical and horizontal polarizations.

Fast connection: configuration for vertical and horizontal positioning



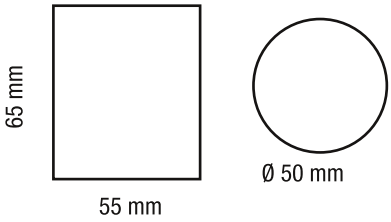
Vertical configurations for meters and antennas

Horizontal configurations for meters and antennas

-FAST CONNECTION AND POLARIZATION (ARJ + BLK+ UNI)

These three accessories allow, after having blocked the antenna or the meter with the BLK, to easily position it through the MPB fast connection technology and to rapidly switch the polarization (horizontal, vertical, cross and circolar)

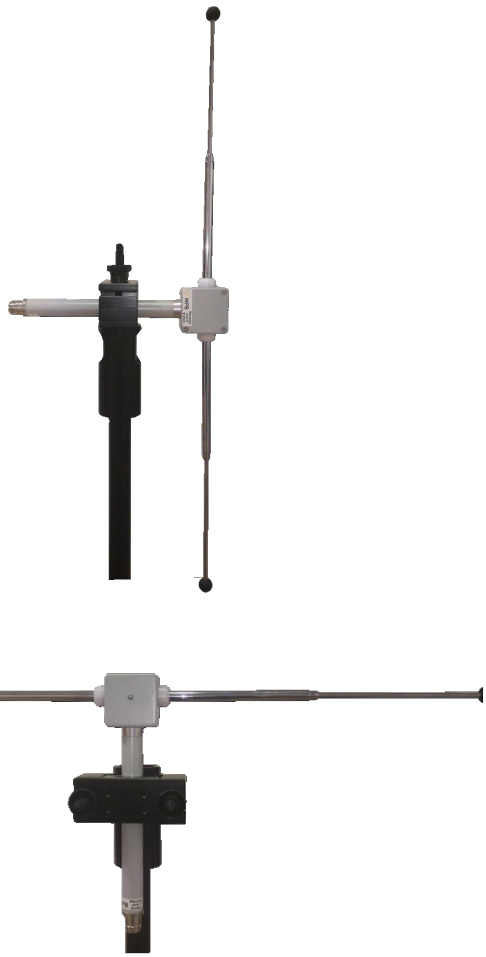
Fast connection for antennas configuration, for horizontal, vertical, cross and circular polarization



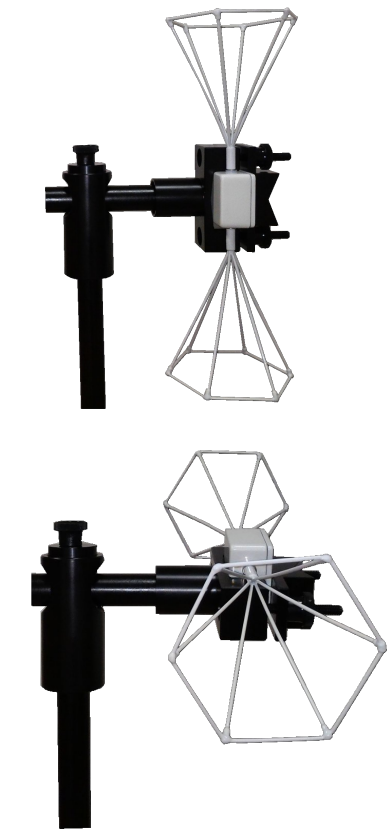
Maximum size of objects that can be locked inside the BLK

ETS horn antenna: horizontal polarization

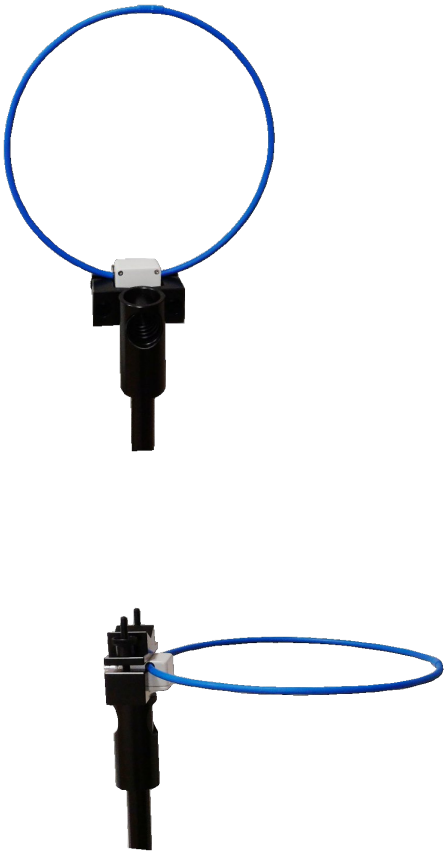
Narda SRM antenna: vertical and horizontal polarization



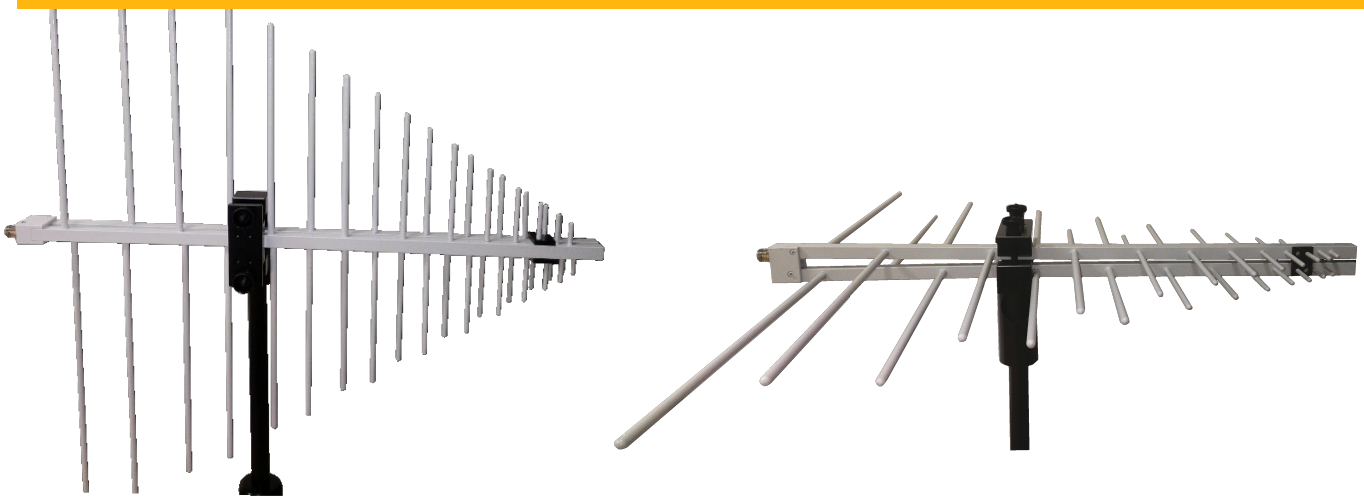
MPB dipole antenna: vertical and horizontal polarization



MPB biconical antenna: vertical and horizontal polarization



MPB loop antenna horizontal and vertical polarization



NARDA log periodic antenna: vertical and horizontal polarization

Insert STUB

Turn meter

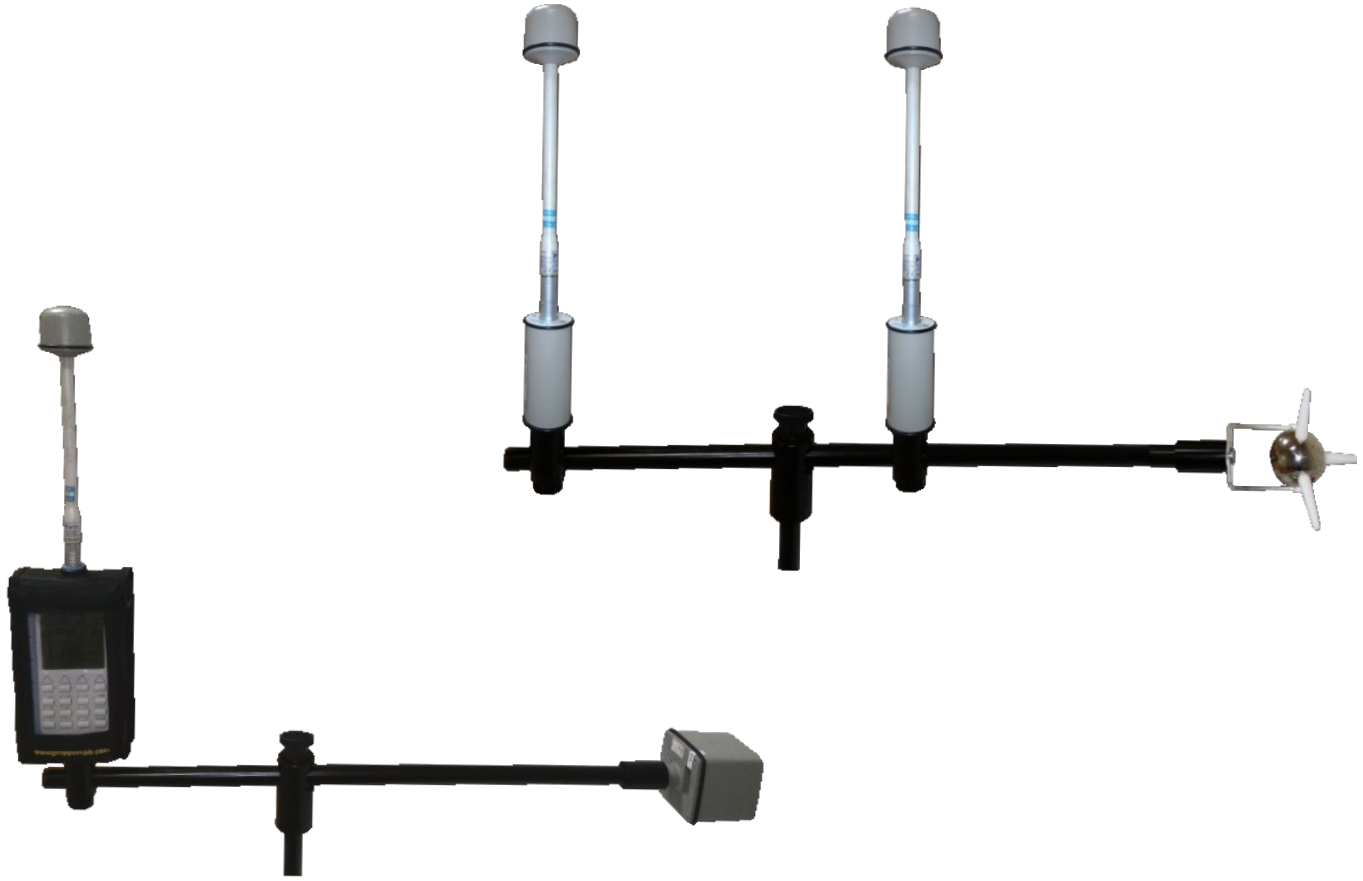
NARDA meter: cross or circular polarization

-FAST CONNECTION AND EXT CONFIGURATION (ARJ + EXT+ UNI + UNIA + UNIB)

Through the EXT configuration it is possible to install more acquisition points on the same support still maintaining the distance from the legs of the tripod, in order to prevent moisture to affect the electric field measurement (directive IEC 61786).

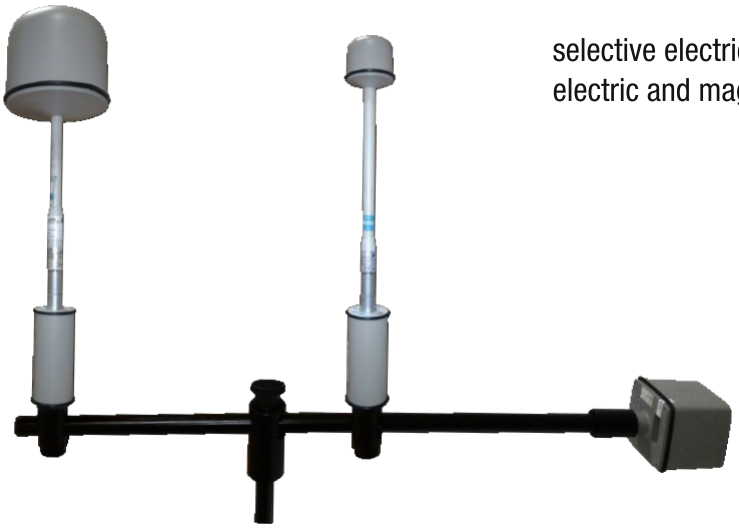
EXT configuration for multiple measurement points

Only one tripod or framework to build a monitoring station.



wideband RF electric sensor + electric and magnetic selective low frequency antenna

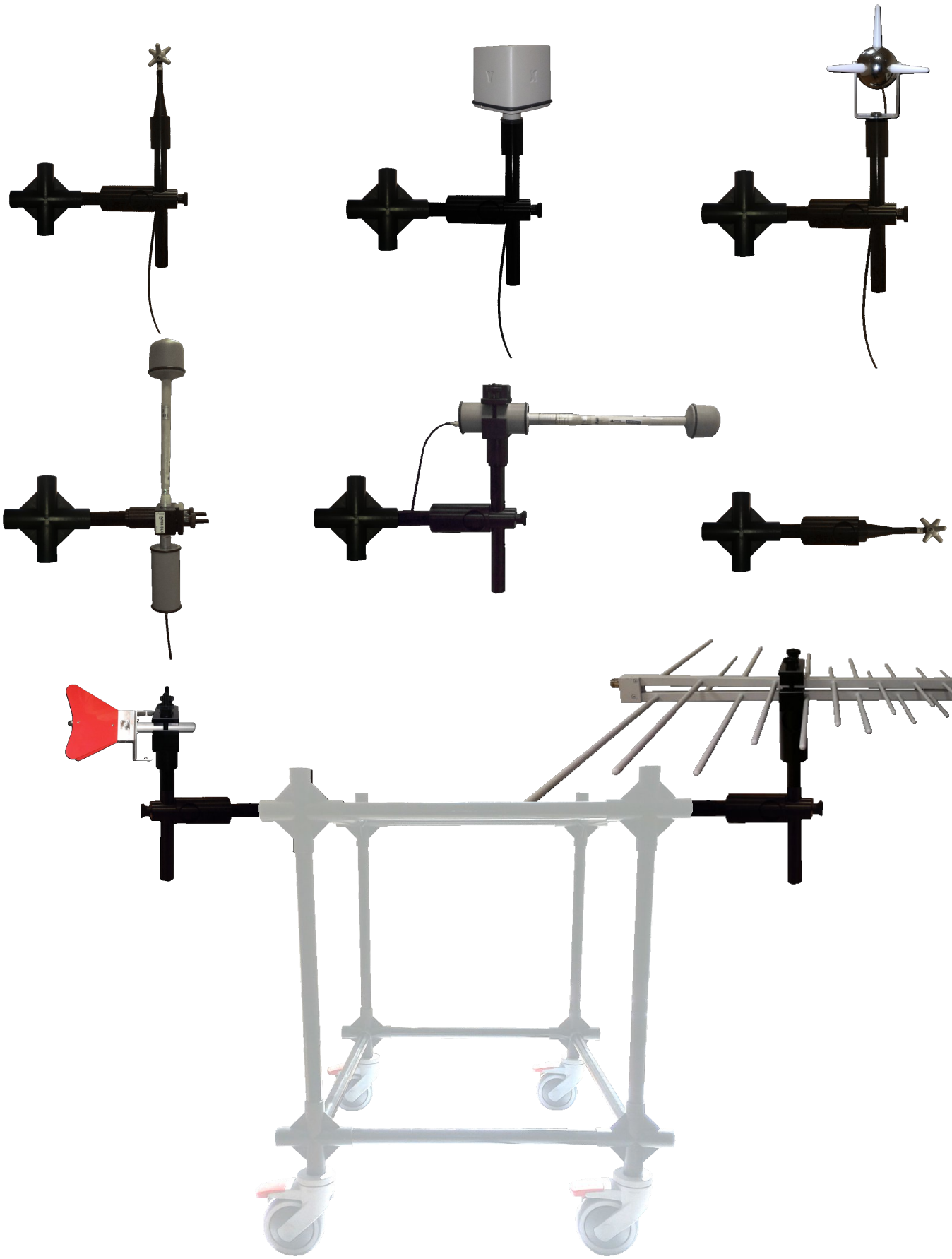
selective electric isotropic antenna + wideband electric sensor + electric and magnetic selective low frequency antenna



wideband magnetic sensor + wideband electric sensor + electric and magnetic selective low frequency antenna

-FIXING SYSTEM EXAMPLES (ARJ + BLK + UNI + UNIA + UNIB + UNIC)

With the NMR-CUBE fixing systems, there are a lot of configurations for supporting sensors or antennas. These can be positioned both vertically or horizontally.



TECHNICAL SPECIFICATIONS

positioning	adjustable on x, y and z axes
threading	MPB and 1/4''
max load	20 Kg (each cube)
materials	fiberglass, Delrin, PVC
dimensions	50x50x65cm
weigth	3 Kg (cube1)
compatibility	with all NMR accessories

Subjec to change without notice

ORDER INFORMATIONS

	CONFIGURATIONS			
	TEM/GTEM POSITIONER	Tx or Rx EMF TOWER up to 5m	Unif. Field CASTLE (EN61000-4-3)	CUSTOMIZED
				Contact MPB
Model	q.ty	q.ty	q.ty	q.ty
NMR-CUBE	1	8	16	n

	UNI	UNIA	UNIB	UNIC	ARJ	BLK	TT182	TT226	TT255	TT307	TT400	TT468	TT650	TT790	TT900	JOINT	SLIP JOINT	T series
NMR-FS1	✓						✓											
NMR-FS2	✓							✓										
NMR-FS3	✓								✓									
NMR-FS4	✓									✓								
NMR-FS5	✓										✓							
NMR-FS6	✓											✓						
NMR-FS7	✓												✓					
NMR-FS8	✓													✓				
NMR-FS9	✓														✓			
NMR-FS10						✓	✓											
NMR-FS11				✓	✓		✓				✓							
NMR-FS12				✓	✓	✓	✓				✓							
NMR-FS13				✓	✓	✓	✓				✓							
SLIP JOINT 50												✓					✓	T470
FIXED CROSS JOINT 50																✓	✓	T226
SLIP CROSS JOINT 50																	✓	T226, T470
SLIP JOINT 65																	✓	T650
FIXED CROSS JOINT 65																✓	✓	T226,T307
SLIP CROSS JOINT 65																	✓	T307,T470
EXT	✓	✓	✓		✓						✓				✓			
CUSTOMIZED	Contact MPB																	

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