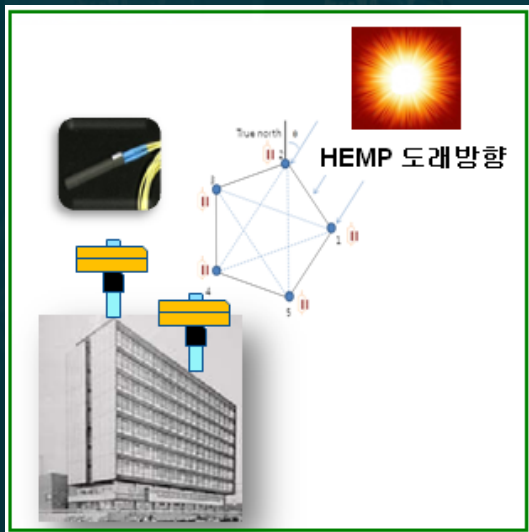


The Best or Nothing over the world

High Field Direction Finder for EMP

Model : MZDF 200A



* Application;

- Direction & burst height Finding the HEMP Burst
- HPEM, EBOMB direction finder
- Calculation of a nuclear warhead weight

* Main features/ specifications

- Direction accuracy : Max. 1 degree
- Detection speed : nano second
- No power supply to the electric field sensors.
- Band width : 10GHz
- Phase comparison type
- Field strength : 0.5- MV/m
- No phase delay, reflection and attenuation on the feeder
- Full optical field sensor and optical transmission line
- No influence from the temperature and extra interference
- Highly light weight of field sensor and feeder line, 1 /100
- E3, long pulse protection function

* Patents;

- 특허 제 10-1203951 호
- 특허 제 10-1443676호

Comparison Table between MZDF 200A and the existed system

	MZDF 200A	Existed system
Preamplifier in the Rx antenna	No need up to 1km cable length	Should be needed a dc power
Receiving antenna type	Integrated antenna + MZ field sensors	Larger antennas + LNA amplifier
RF modulation type	Optical intensity modulation	No modulation + Amplifier
Transmission lines	Single mode optical fiber	Coaxial cables
Temperature dependency	None	Very big influence on LNA
Frequency band	Up to 10GHz, wide band	Nominal 3GHz
Frequency dependency	Very low over the frequency	Very big attenuation on the cable length
Phase dependency	Very low	Very high
Receiving field strength	35uV/- MV/m	Few uV – around 10V/M
Circuit damaged by HEMP, HPEM	None	Surely damaged
Purpose and usage	High powered field sources detecting for Jamming, HEMP, HPEM, Radar	Mainly lowest power sources detecting
Response time	1ns	10ms [R&S DDF 195 model]
Direction accuracy	1 degree	2 degree

Functional diagram of the Model MZDF 200A

