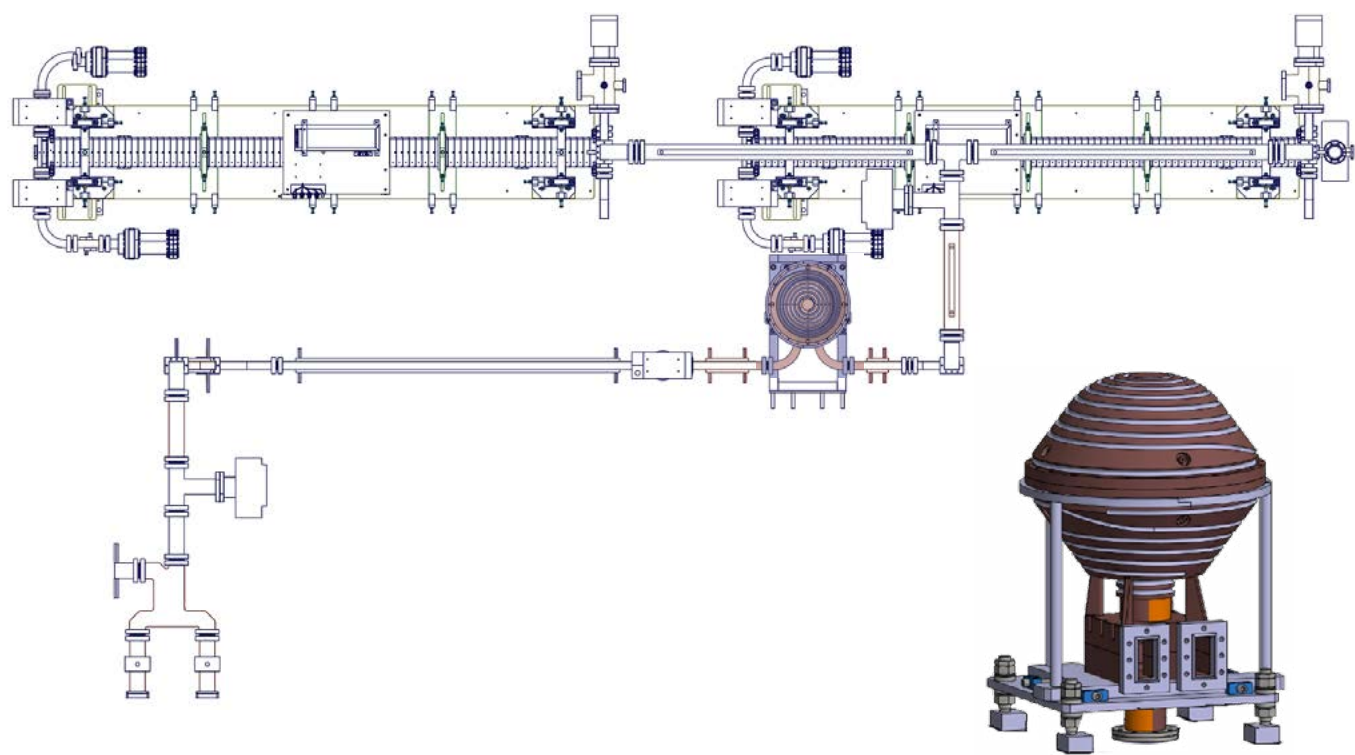


Spherical Pulse Compressor

Compact Single Cavity, High Efficiency Tuneable RF Energy Amplifier



Highlights

Feature	Benefit
OHFC (Oxygen Free High Conductivity Copper) waveguide	Fit to operate in Ultra High Vacuum (UHV) environment
Copper gasket sealing	High Vacuum Rate <1.3E-11[Pa·m³/sec]
316 L Stainless Steel Flanges	Strong and vacuum compatible
Frequency tune: Enable	Compensate for the fabrication errors
RF detune: Enable	Decouple the compressor from the waveguide system
High shunt impedance and Q factor	Higher efficiency

Application

Single spherical cavity is used to store RF energy which is fed to pulse compressor using a compact RF polarizer.

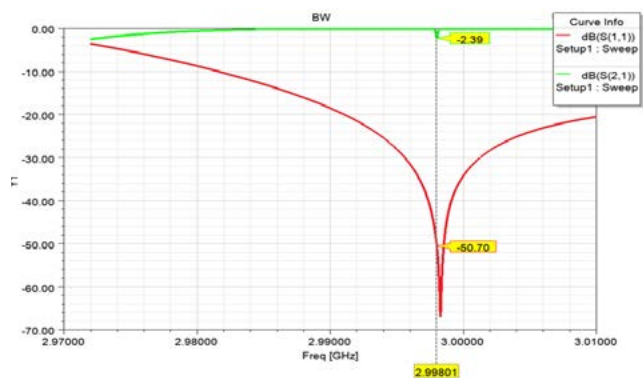
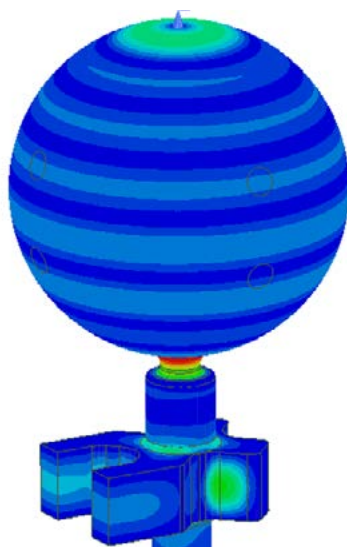
Specifications

Parameter	Value
Operating Temperature	33 ±0.5 C
Operating frequency	2998.01 MHz
Quality factor	>140,000
Coupling coefficient	7
Cavity Mode	TE _{m13}
Max Peak Power	400 MW
Pulse length	1μs
Repetition Rate	60 Hz
Max. Average RF Power	≈23 kW

Technical Support

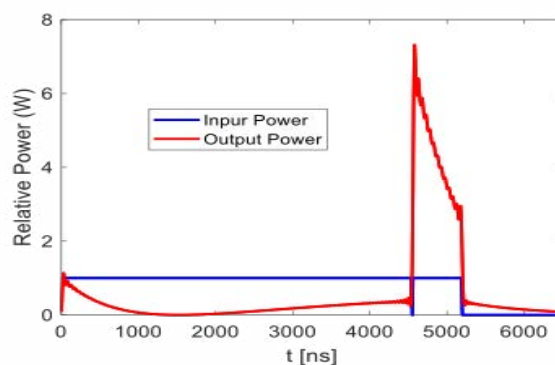
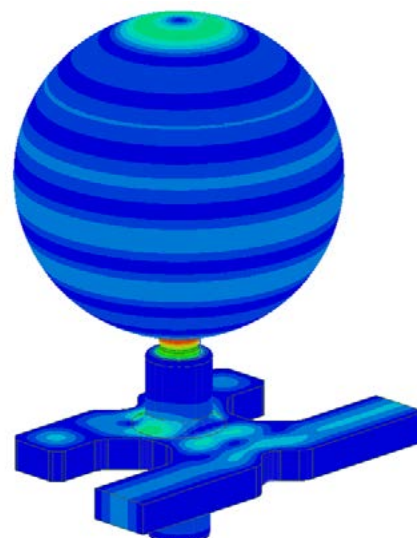
- Design and manufacturing
- Low power testing and reports
- Conditioning, high power testing and reports
- Complete engineering support for customization and installation

E-Plane Version



Developed for the FERMI@Elettra Project.

H-Plane Version



Elettra Sincrotrone Trieste

Contact us!

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