

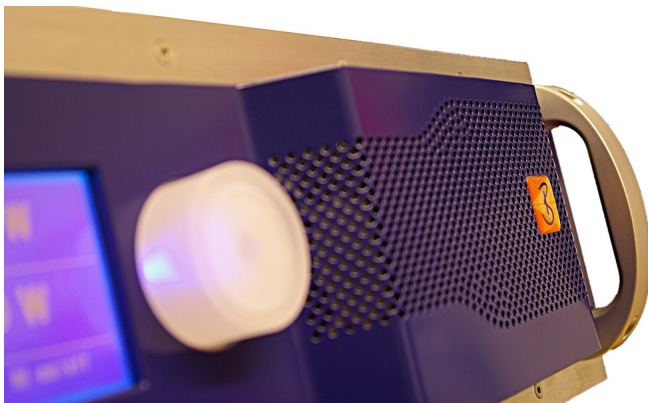
Radio Frequency Pulse Power Amplifier for ≤ 3 Tesla Systems

Broadband

RFPA-10/65-500
RFPA-10/65-1000
RFPA-10/65-2000
RFPA-10/65-4000
RFPA-40/130-500
RFPA-40/130-1000
RFPA-10/140-2000
RFPA-1/100-100
RFPA-1/100-2000

Narrowband

RFPA-128-100
RFPA-128-250
RFPA-128-500
RFPA-128-1000
RFPA-128-2000
RFPA-128-4000



When we designed our pulse power amplifier series we had in mind the requirements of spectroscopic analysis, for instance

- Nuclear Magnetic Resonance (NMR/MRI)
- Electron Paramagnetic Resonance (ESR/EPR)
- Electron Nuclear Double Resonance (ENDOR)

and similar applications. We have striven to achieve excellent linearity, plus phase and amplitude stability. Additional emphasis we put on the RF fall time as this is a critical parameter for many applications.

We apply state of the art LD MOS transistor amplifier stages. This way the amplifiers are robust to cope with mismatch conditions. The amplifiers are controlled by a micro controller.

Versions

	Freq. Bandwidth	RF Peak Power	Cabinet Height	Part No.
RFPA-10/65-500	10-65 MHz	500 W	3 U	185170
RFPA-10/65-1000	10-65 MHz	1000 W	3 U	185180
RFPA-10/65-2000	10-65 MHz	2000 W	4 U	185190
RFPA-10/65-4000	10-65 MHz	4000 W	5x3 U	185200
RFPA-40/130-500	40-130 MHz	500 W	3 U	185130
RFPA-40/130-1000	40-130 MHz	1000 W	3 U	185430
RFPA-10/140-2000	10-140 MHz	2000 W	4 U	175380
RFPA-1/100-100	1-100 MHz	100 W	2 U	165000
RFPA-1/100-2000	1-100 MHz	2000 W	4 U	175400
RFPA-128-100	124-132 MHz	100 W	2 U	185290
RFPA-128-250	124-132 MHz	250 W	2 U	185300
RFPA-128-500	124-132 MHz	500 W	3 U	185310
RFPA-128-1000	124-132 MHz	1000 W	3 U	185280
RFPA-128-2000	124-132 MHz	2000 W	3x3 U	185320
RFPA-128-4000	124-132 MHz	4000 W	5x3 U	185330

Other frequencies, RF output powers and maybe cabinet sizes are possible. Please contact us with your requirements.

Energy Control

In its standard version the pulse power amplifier controls the maximum pulse power, the maximum pulse length, and the maximum duty cycle. If either parameter exceeds its limit the amplifier protects itself and turns off the RF amplification.

With the option *Energy Control* the parameters output power and duty cycle are connected to each other. The maximum RF pulse power is still controlled. In case it exceeds its maximum limit it will cause an error. The pulse length is not any longer controlled separately. With a reduced output power even CW operation is possible. The duty cycle and the RF output power are combined to an energy control. The smaller the output power the higher the duty cycle may be.

Remote Control

The RF pulse power amplifier can be remotely controlled with a serial data connection. There are two protocols implemented a proprietary binary protocol, and an ASCII protocol.