



RF power handling and performance

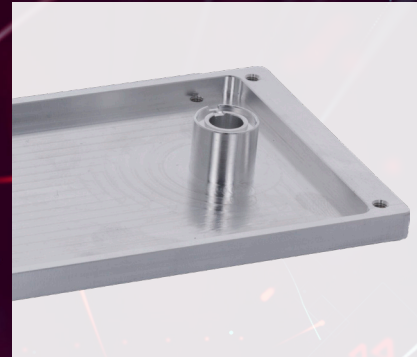
The RFEX is designed to handle the required high power levels at lowest possible losses. Additional heat generation in transitions can be avoided, and very high reliability and long life time of amplifiers is supported.

Excellent shielding

Integrating the coaxial structure into the housing body eliminates gaps caused by separate mounted connectors, or feedthroughs. This way, sources for RF-leakage causing EMC issues are reduced to the minimum possible.

Achieving the industry's cost targets

The RFEX is directly integrated in the amplifiers housing, significantly reducing the number of piece parts. Further, the amplifier modules' assembly process is simplified and streamlined to provide lowest possible cost of ownership.



Direct integration of antenna

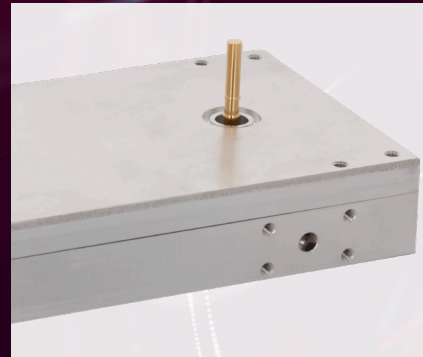
The antenna is directly implemented on the topside of the RFEX. As of today, antennas for connecting rectangular waveguides, dielectric filled waveguides, or cooking cavities, or a standard interface (e.g. N-type) for connecting cables are supported.

PCB space reduced to a minimum

The PCB-footprint is reduced to the minimum possible. This way, compact designs RF-Energy modules are supported, and cost are reduced additionally. Higher integration densities in applications can be realized.

Deviating from 50Ω impedance

RFEX supports impedances lower than 50Ω. This way, the transistor output matching can be simplified (lower cost), bandwidth can be increased, and losses can be reduced.



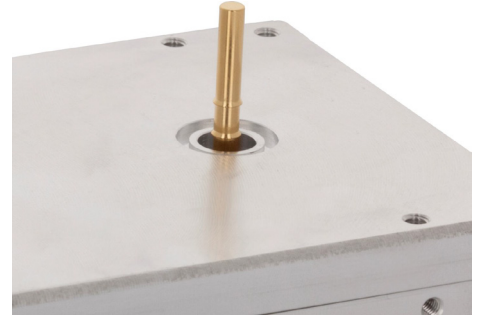
RFEX

The first connector dedicated to RF-Energy

RFEX

Features

- Connector dedicated for RF-Energy applications
- Supports direct integrated into power amplifier housing
- Compensates mechanical tolerances between housing and PCB
- Reduces mechanical stress between mechanical parts to a minimum
- High power capability
- Cost efficient
- Supports direct integration with rectangular waveguides, and dielectric filled waveguides as well as direct antenna implementation



Technical Specification

Electrical Data

Impedance	50 Ω ⁽¹⁾
Frequency	2.4-2.5 GHz
Power rating @ 25°C	500W (1.5 kW) ⁽²⁾
Insertion Loss	0.15 dB
Return Loss	25 dB

⁽¹⁾ Alternative solutions based on lower impedance available on request

⁽²⁾ Power levels > 500W only with tested PCB material

Mechanical Data

Required space for PCB foot-print	14 mm in diameter
Min. height of housing (PCB to housing)	4 mm

Environmental Data

Operational temperature	150°C ⁽¹⁾
2011/65/EU, RoHS	Compliant

⁽¹⁾ Temperature limited by PCB

Order Information

RFEX is available for design-ins. The antenna will be adjusted based on the needs in the target application. PCB-footprint will be provided based on used PCB-material. For details, please contact your HUBER+SUHNER sales representative.