

## POWER RATING

The maximum transmittable RF power is determined by

- **Maximum RF peak voltage:** When the transmitted RF power increases, the field strength into the coaxial connector also increases until the breakdown voltage is reached.
- **Thermal capability:** The current density on the inner conductor increase in function of the transmitted RF power. The attenuation loss generates waste heat that can cause destruction of the connector.

Connector type:	7-16	EIA 7/8"	EIA 1 5/8"
Standard	IEC 61169-4	EIA RS-258	EIA RS-258
Characteristic impedance [ $\Omega$ ]	50	50	50
Inner conductor diameter [mm]	7.00	8.7	16.9
Outer conductor diameter [mm]	16.0	20.0	38.8
Peak power [kW]	40	90	313.6

Power rating\* [kW] **RMS**

\* +40°C ambient temperature / 80°C connector inner conductor temperature

30 MHz	9.2	10.8	27.5
100 MHz	5.0	5.8	14.1
200 MHz	3.4	4.0	9.4
450 MHz	2.2	2.5	5.7
600 MHz	1.8	2.1	4.7
800 MHz	1.6	1.8	3.9
900 MHz	1.5	1.7	3.6
1000 MHz	1.4	1.6	3.3
1800 MHz	0.95	1.1	2.2
1900 MHz	0.92	1.0	2.1
2000 MHz	0.89	1.0	2.0
2200 MHz	0.83	0.94	1.9
2500 MHz	0.77	0.86	1.7
3000 MHz	0.68	0.76	-

