

6910 series: Medium Power Thermocouple Power Sensors

	6910	6911	6912
FREQUENCY RANGE	10 MHz - 20 GHz	10 MHz - 20 GHz	30 kHz - 4.2 GHz
POWER RANGE	-30 dBm to +20 dBm (1 μ W to 100 mW)	-30 dBm to +20 dBm (1 μ W to 100 mW)	-30 dBm to +20 dBm (1 μ W to 100 mW)
MAX RF INPUT	+25 dBm (300 mW) CW +42 dBm (15 W) peak for 2 μ s	+25 dBm (300 mW) CW +42 dBm (15 W) peak for 2 μ s	+25 dBm (300 mW) CW +42 dBm (15 W) peak for 2 μ s
SENSING ELEMENT	Semiconductor thermocouple	Semiconductor thermocouple	Semiconductor thermocouple
VSWR	<1.25 10 MHz - 30 MHz <1.1 30 MHz - 2GHz <1.18 2 GHz - 16 GHz <1.28 16 GHz - 18 GHz <1.4 typical 18 GHz - 20 GHz	<1.25 10 MHz - 30 MHz <1.15 30 MHz - 2 GHz <1.18 2 GHz - 16 GHz <1.28 16 GHz - 18 GHz <1.4 typical 18 GHz - 20 GHz	<1.6 30 kHz - 100 kHz <1.2 100 kHz - 300 kHz <1.1 300 kHz - 4.2 GHz
LINEARITY FACTOR	Provided with sensor	Provided with sensor	Provided with sensor
Accuracy	$\pm 0.5\%$ at 25°C between +10 and +20 dBm Improves by a factor of 10 for each lower range	$\pm 0.5\%$ at 25°C between +10 and +20 dBm Improves by a factor of 10 for each lower range	$\pm 0.5\%$ at 25°C between +10 and 20 dBm Improves by a factor of 10 for each lower range
CALIBRATION FACTOR	Provided with sensor	Provided with sensor	Provided with sensor
Accuracy	Uncertainty provided with sensor	Uncertainty provided with sensor	Uncertainty provided with sensor
Resolution	0.01%	0.01%	0.01%
RF CONNECTOR	Precision N-type, male 50 Ω	APC-7, 50 Ω	Precision N-type, male 50 Ω
SIZE & WEIGHT	87 mm long, 33.5 mm dia. 140g	87 mm long, 33.5 mm dia. 140 g	87 mm long, 33.5 mm dia. 140 g
ORDER CODES	56910/900	56911/900	56912/900

6910 Series: Medium Power Thermocouple Power Sensors (continued)

	6913	6914	6914S	6919
FREQUENCY RANGE	10 MHz - 26.5 GHz	10 MHz - 40 GHz	10 MHz - 46 GHz	30 kHz - 3 GHz
POWER RANGE	-30 dBm to +20 dBm (1 mW to 100 mW)	-30 dBm to +20 dBm (1 mW to 100 mW)	-30 dBm to +20 dBm (1 mW to 100 mW)	-30 dBm to +20 dBm (1 mW to 100 mW)
MAX RF INPUT	+25 dBm (300 mW) CW +42 dBm (15 W) peak for 2 ms	+25 dBm (300 mW) CW +42 dBm (15 W) peak for 2 ms	+25 dBm (300 mW) CW +42 dBm (15 W) peak for 2 ms	+25 dBm (300 mW) CW +42 dBm (15 W) peak for 2 ms
SENSING ELEMENT	Semiconductor thermocouple	Semiconductor thermocouple	Semiconductor thermocouple	Semiconductor thermocouple
VSWR	<1.4 10 MHz - 40 MHz <1.15 40 MHz - 100 MHz <1.1 100 MHz - 2 GHz <1.15 2 GHz - 12.4 GHz <1.2 12.4 GHz - 18 GHz <1.25 18 GHz - 26.5 GHz	<1.58 10 MHz - 40 MHz <1.15 40 MHz - 100 MHz <1.1 100 MHz - 2 GHz <1.15 2 GHz - 12.4 GHz <1.21 12.4 GHz - 18 GHz <1.25 18 GHz - 26.5 GHz <1.43 26.5 - 40 GHz (vers. /001) <1.55 26.5 - 40 GHz (vers. /002)	<1.58 10 MHz - 40 MHz <1.15 40 MHz - 100 MHz <1.1 100 MHz - 2 GHz <1.15 2 GHz - 12.4 GHz <1.43 12.4 GHz - 33 GHz <2.32 33 GHz - 40 GHz <3.6 40 GHz - 46 GHz	<1.4 30 kHz - 100 kHz <1.15 100 kHz - 300 kHz <1.1 300 kHz - 2 GHz <1.2 typical 2 GHz - 3 GHz
LINEARITY FACTOR	Provided with sensor	Provided with sensor	Provided with sensor	Provided with sensor
Accuracy	$\pm 0.5\%$ at 25°C between +10 and +20 dBm. Improves by a factor of 10 for each lower range	$\pm 0.5\%$ at 25°C at 100 mW, decreasing by 0.005% per mW	$\pm 0.5\%$ at 25°C at 100 mW, decreasing by 0.005% per mW	$\pm 0.5\%$ at 25°C between +10 and +20 dBm. Improves by a factor of 10 for each lower range
CALIBRATION FACTOR	Provided with sensor	Provided with sensor	Provided with sensor	Provided with sensor
Accuracy	Uncertainty provided with sensor	Uncertainty provided with sensor	Uncertainty provided with sensor	Uncertainty provided with sensor
Resolution	0.01%	0.01%	0.01%	0.01%
RF CONNECTOR	MPC 3.5 mm, male 50 Ω	MPC 2.92 mm, male 50 Ω	MPC 2.92 mm, male 50 Ω	Precision N-type, male, 75 Ω
SIZE & WEIGHT	80 mm long, 33.5 mm dia. 140g	88.5 mm long, 33.5 mm dia. 140g	88.5 mm long, 33.5 mm dia. 140g	89 mm long, 33.5 mm dia. 140g
ORDER CODES	56913/900	56914/001 56914/002 includes waveguide 22 coax transition and cal table	56914/003	56919/900
Supplied with	Adapter part no. 23443/822 for connection between 6913 and 0 dBm Power Reference.	Adapter part no. 23443/822 for connection between 6914 and 0 dBm Power Reference.	Adapter part no. 23443/822 for connection between 6914 and 0 dBm Power Reference.	Adapter part no. 23443/842 for connection between 6919 and 0 dBm Power Reference.