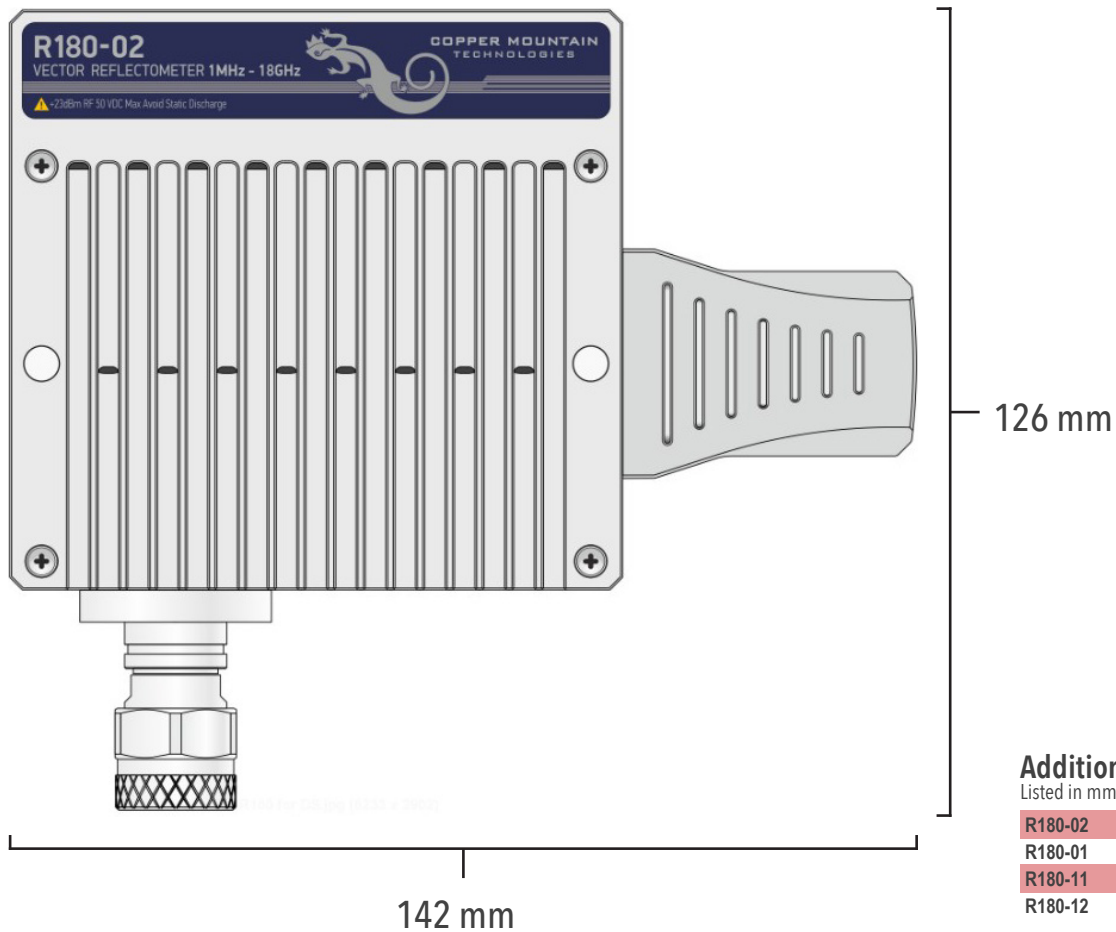


R180 Specifications¹



Additional Model Sizes

Listed in mm

R180-02	126 x 142 x 36
R180-01	128 x 142 x 36
R180-11	121 x 142 x 36
R180-12	121 x 142 x 36

Primary Specifications

Impedance	50 Ohm
R180-02 - Test port connector	N-type male
R180-01 - Test port connector	N-type female*
R180-11 - Test port connector	3.5 mm female*
R180-12 - Test port connector	3.5 mm male*
Number of test ports	1
Frequency range	1.0 MHz to 18.0 GHz ²
Full CW frequency	±2.5x10 ⁻⁶
Frequency setting resolution	50 Hz
Number of measurement points	2 to 100,001
Measurement bandwidth	10 Hz to 100 kHz (with 1/3 step)
Cable loss measurement range	35 dB
Dynamic range (100 Hz IF BW)	
1 MHz to 6 GHz	110 dB, typ.
6 GHz to 18 GHz	94 dB, typ.

*Special Order

Measurement Accuracy

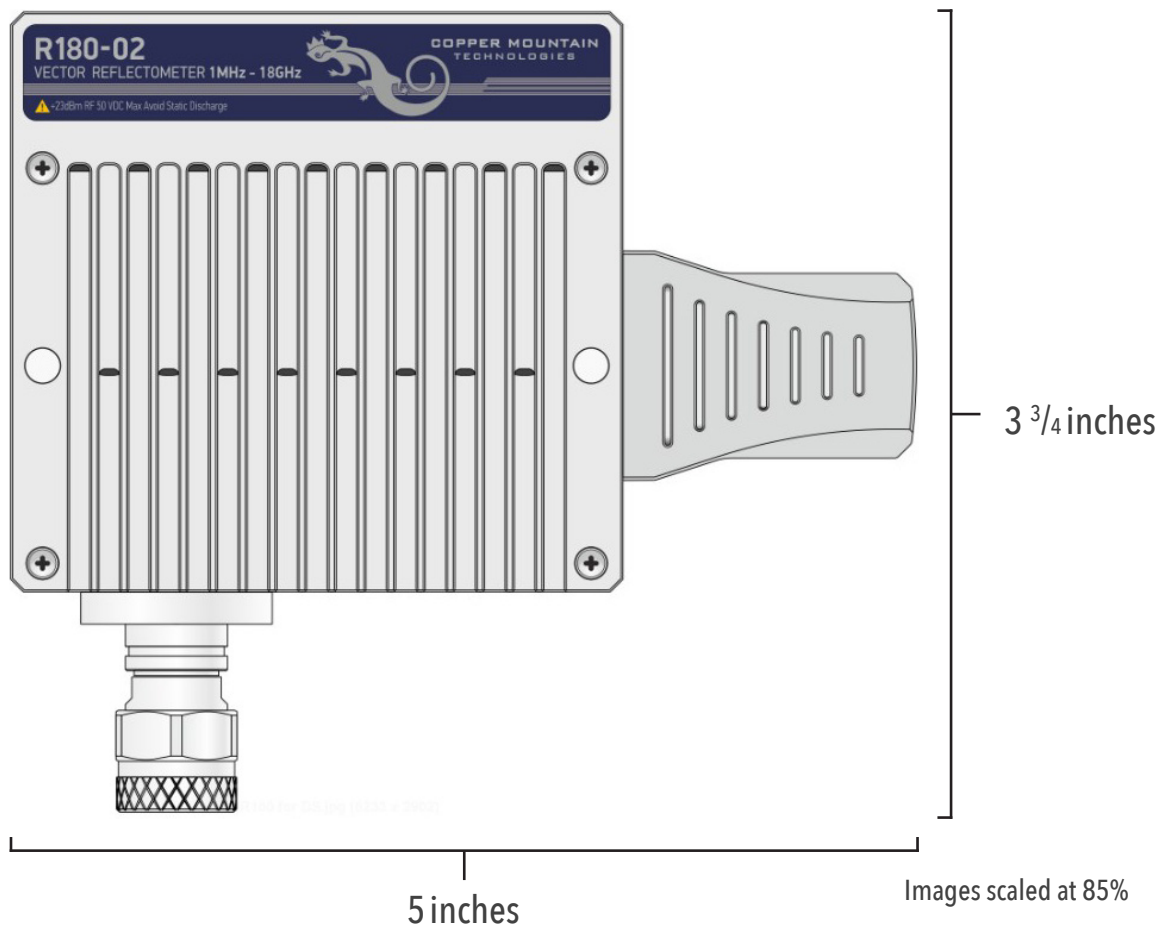
Reflection ²	(Magnitude/Phase)
-15 to 0 dB	0.5 dB/5°
-25 to -15 dB	1.5 dB/10°
-35 to -25 dB	5.5 dB/30°
Transmission	(Magnitude)
1 MHz to 6 GHz; -50 to 0 dB	1.0 dB
6 GHz to 18 GHz; -25 to 0 dB	1.0 dB
Trace noise magnitude (0 dBm Output Power, IF Bandwidth 3 kHz)	0.01 dB RMS
Temperature dependence	0.020 dB/°C

Effective System Data²

Effective directivity	45 dB
Effective source match	37 dB
Effective reflection tracking	0.10 dB

[1] All specifications subject to change without notice.

[2] At 23 °C +/- 5 °C after 30 minutes of warming-up, with +/- 1 °C ambient deviation from calibration temperature, at 0 dBm output power and IF BW 100 Hz



Test Port

Directivity (without system error correction)	10 dB, 15 dB typ.
Match (without system error correction)	10 dB, 15 dB typ.
Output Power	
Power range	-15 to 0 dBm
Power resolution	0.05 dB, typ.
Power accuracy	±1.5 dB, typ.
Interference immunity	+17 dBm
Damage level	+23 dBm
Damage DC voltage	50 V

Measurement Speed

Measurement time per point, min typ.	100 µs
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General Data

External reference frequency	10 MHz
Input level	2 dBm ± 2 dB
Input impedance at Ref input	50 Ohm
Connector type	SMA, female
Output reference signal level at 50 Ohm impedance	3 dBm ± 2 dB
Ref connector type	SMA, female
External trigger	3.3 V CMOS, TLL compatible
Pulse width	More than 1 us
Input impedance at Ext Trig	At least 10 kOhm
Input connector type	SMA, female

Atmospheric Tolerances

Operating temperature range	-10°C to 50°C
Storage temperature range	-50°C to 70°C
Humidity	90% at 25°C
Atmospheric pressure	84.0 kPa to 106.7 kPa

Factory Adjustment

Recommended factory adjustment interval	3 Years
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System & Power

Operating systems	Windows XP/Vista/7/8/10
CPU frequency	1.0 GHz
RAM	2.0 GB
External Power Supply	+5DVC±5%
Power Consumption	8.0 W
USB Connector Type	USB type-C, female
Weight	0.5 kg/17.6 oz