



### Gemini 5540A RF Power Meter

High-power, high-accuracy RF measurement in a single instrument. A refreshing and modern approach to RF power measurement, from TEGAM.



**TRUST** is an essential feature in any measurement tool and TEGAM’s Gemini Series Power Meters are instruments you can **rely on every day** with confidence.

Designed from the same dedication and expertise that built the TEGAM calorimetric product line used in primary and production labs around the world, the Gemini Series RF Power Meter family brings **modern functionality and easy-to-use design** to the world of in-line RF power measurement.

- **Measurement-at-a-Glance:** Forward and reverse power, VSWR, and frequency simultaneously displayed on a large, easy-to-read OLED display.
- **Convenient:** Sensor and meter, in one convenient instrument. No separate meter, no elements needed, and no reconfiguration is necessary for forward and reverse power measurements.
- **Flexibility:** Take measurements directly from the meter or connect to a PC to collect measurement data using the available software.
- **Accurate:** 2-sigma accuracy of  $\pm 0.5\% + 0.5W$  across power range at calibrated frequencies.
- **Wideband:** Cover wider frequency and power bands with fewer instruments.
- **Confidence:** Digital display and no elements mitigate measurement errors.



The Gemini Series meters provide **flexibility and freedom**. The meters are powered by a standard USB 2.0 port, external battery, or AC power outlet using off-the-shelf USB adapters. And since the meter is built-in, there is less equipment – and less cables – to carry to the field or bench.

**Real-time readings and data collection** increase user productivity and process efficiency. Measurement data can be collected directly on a compatible PC for remote monitoring, review, or audit. Measurements are quicker and more reliable with the single, self-contained 5540A, maximizing productivity.

For over 30 years, TEGAM has been building RF measurement instruments for challenging applications. The TEGAM Gemini Series RF Power Meter family – **experience and innovation** realized.

**When the Measurement Matters, Be Certain with TEGAM.**

## General Specifications

|  |   |                     |
|--|---|---------------------|
| <b>Measurement Ranges<sup>1</sup></b>                      |   |                     |
| <b>Frequency (MHz)</b>                                     | 0.2 to 200  |                     |
| <b>Forward Power (W)<sup>1</sup></b>                       | 3 to 5,000 (Connector and frequency dependent)  |                     |
| <b>Reverse Power (W)</b>                                   | 3 to 1000   |                     |
| <b>Basic Power Accuracy (1-Year)<sup>2, 3 (2σ)</sup></b>   | ± (0.5% of Rdg + 0.5 W) at the calibrated frequencies and power ranges (see Certificate of Calibration)   |                     |
| <b>Measurements</b>  | Forward Power, Reverse Power, VSWR <sup>4</sup> , and Frequency <sup>4</sup>  |                     |
| <b>Impedance</b>   | 50 Ω  |                     |
| <b>Directivity</b>   | >= 28 dB (Typical- 1MHz to 60MHz)   |                     |
| <b>VSWR</b>  | Better than 1.05 : 1 below 60 MHz   |                     |
| <b>Insertion Loss</b>                                      | < 0.05 dB with QC Type N connectors   |                     |
| <b>Connector Type<sup>1, 2</sup></b>                       | Input and output connector configurations are specified by customer at time of purchase. Available connectors are: N, HN, LC, 7/16 DIN, 7/8 EIA, and QDS-UL |                     |
| <b>Display</b>   | 6-Digit Auto-Resolution OLED Display  |                     |
| <b>Display Resolution</b>                                  | Up to 6 digits (2 digits past decimal point)  |                     |
| <b>Power (W)</b>   | 0.01  |                     |
| <b>Frequency (MHz)</b>                                     | 0.01  |                     |
| <b>Power Requirement</b>                                   | 5 VDC, 500 mA   |                     |
| <b>Power / Data Connector</b>                              | USB Type B, 2.0 interface   |                     |
| <b>Compliance</b>  | EN 61326-1:2013<br>CE (2014/30/EU) / RoHS3 (2015/863/EU) / REACH<br>IEC 61010-1, 61010-2, 61326-1, and 61326-2  |                     |
| <b>Operating Temperature</b>                               | +18 to +28 °C   | +64.4 to +82.4 °F   |
| <b>Storage Temperature</b>                                 | -40 to +71 °C   | -40.0 to +159.8 °F  |
| <b>Warranty</b>  | 1-year Parts & Workmanship  |                     |
| <b>Recommended Calibration Interval</b>                    | 12 months   |                     |
| <b>Dimensions (W x H x D, including Type N connectors)</b> | 155 x 71 x 64 mm  | 6.1 x 2.8 x 2.5 in. |
| <b>Weight</b>  | 1001 g  | 2.20 lbs            |

<sup>1</sup>Maximum power is limited by the measurement frequency and instrument connector types. See instruction manual for further details.

<sup>2</sup>Specifications valid only when used with the connectors in-place at time of calibration. Removal or changing of connectors will void calibration data.

<sup>3</sup>See instruction manual for full measurement uncertainty data.

<sup>4</sup>For reference use only.



