Course Catalog Number: Tem-2
Course Track: Electrical Measurements
Course Topic: RF
Course Career Level: Advanced

Saturday, August 24 | 1:00 PM – 5:00 PM | 1/2-Day PM (4 Hours)

Course Title: RF Power Sensor Linearity Calibration

Instructor: Greg Tolentino, Tegam Inc.

Abstract: RF power sensor linearity is a commonly misunderstood topic. However, to obtain the most accurate power measurements, it's important that technicians understand what linearity is, sources of nonlinearity, and how to measure RF power linearity. This course introduces metrologists and technicians to linearity calibration for low-power (-70 to + 20 dBm), high-frequency (9 kHz to > 50 GHz) RF power sensors and explains why it is important for their customers. The material then dives deeper with a discussion of commonly encountered challenges in linearity calibration. Finally, detailed descriptions and examples of commonly used linearity measurement techniques are presented, with a discussion of the advantages of each.

Learning Objectives:

1. Define linearity as related to RF power sensors.
2. Understand the importance of linearity calibration.
3. Explain the challenges posed in linearity calibration.
4. Compare and apply current and alternative linearity calibration methods.

Instructor Curriculum Vitae (CV):

Greg Tolentino has 10 years' experience as USAF PMEL technician and as a contracted technician where he focused on RF and waveform analysis equipment calibration and repair. He holds his A.A.S. in electronics technology, and undergraduate and graduate degrees in business. He joined TEGAM in 2013 as the Applications Engineer and is currently a Product Manager for TEGAM's RF product line.