

# PROCEDURE TO MEASURE COAXIAL CABLE LOSS

## Overview

Following is a method to determine the actual loss in a length of coaxial cable using a transmitter set to a desired frequency, a Watt meter, and a dummy load rated at a wattage greater than the power output of the transmitter.

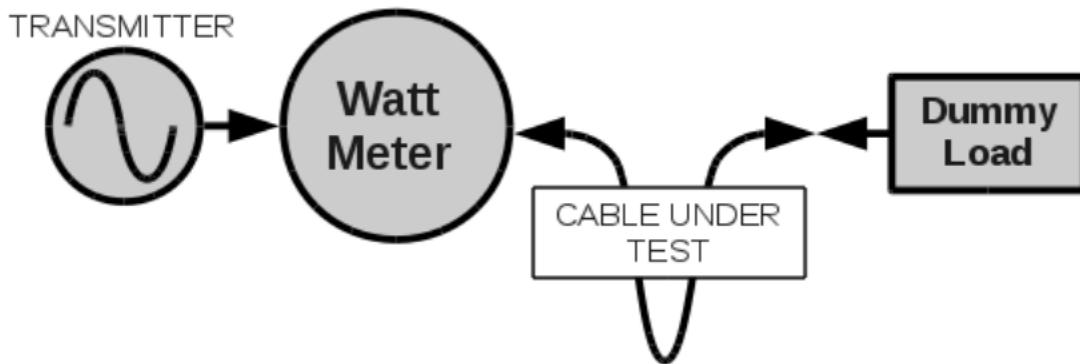
## Procedure

1. Make the connections as shown in Figure-1.
2. Key the transmitter and record the forward reading from the Watt meter.
3. Make the connections as shown in Figure-2
4. Key the transmitter and record the forward reading from the Watt meter.
5. Calculate the cable loss using the following formula:

$$\text{dB Loss} = 10\text{LOG}(P_{\text{step2}} / P_{\text{step4}})$$

Example:  $\text{dB Loss} = 10 * \text{LOG}(100/50)$   
 $\text{dB Loss} = 10 * \text{LOG}(2)$   
 $\text{dB Loss} = 10 * 0.3010299$   
 $\text{dB Loss} = 3.01$

**Figure-1**



**Figure-2**

