

TYPE 7429-1 LOOP ANTENNA

for RS01 magnetic field tests



DESCRIPTION

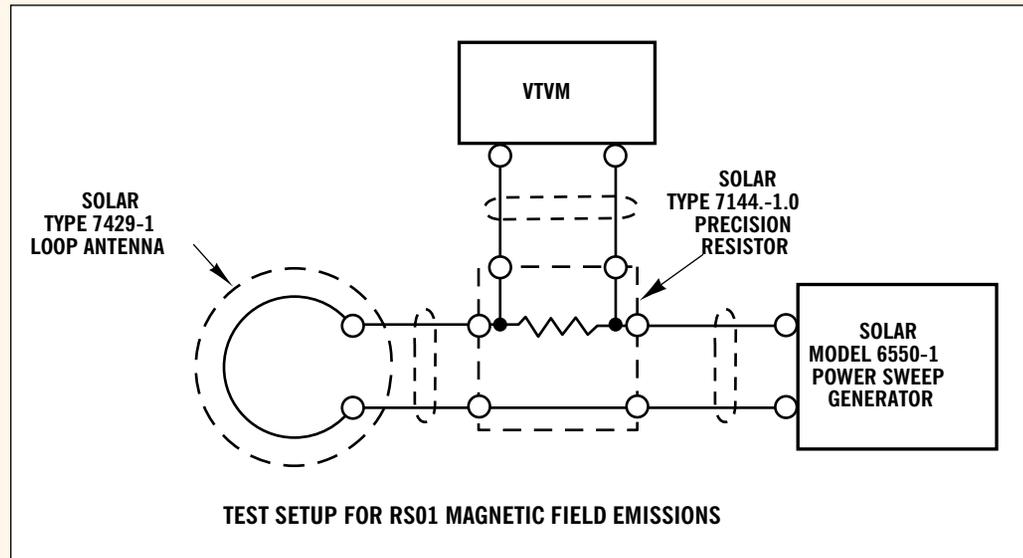
The loop antenna used for generating radiated magnetic fields is fully described in Figure 1A of MIL-STD-461A. It consists of ten turns of number 16 A.W.G. wire on an insulated form 4.72" (12 cm) in diameter. The winding is placed on the form in a position which allows the form to be used as a spacer to place the winding 5 cm from the face of the item under test as required by test method RS01 of MIL-STD-462.

The **Type 7429-1 Loop Antenna** has been designed to the exact requirements of the specification. The loop winding is placed on a durable plastic form and is equipped with banana jack style terminals for connection to the test setup. The loop is not shielded.

APPLICATION

In a practical RS01 test setup, the loop antenna is supplied with the required current versus frequency by the Solar **Model 6550-1 Power Sweep Generator**. The current is measured with a voltmeter connected across the Solar **Type 7144-1.0 Precision Resistor** which is connected in series between the loop and the generator.

The a.c. current in the **Type 7429-1 Loop Antenna** to generate the magnetic field intensity required by test method RS01 at 5 cm from the loop winding is depicted on a graph supplied with the loop. The required current varies from a few microamperes to about 5 amperes as frequency is adjusted over the range 30Hz to 50 KHz.



SOLAR ELECTRONICS COMPANY

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e-mail: sales@solar-emc.com

www.solar-emc.com

A division of A.T.Parker, Inc.

(800) 952-5302

(818) 755-1700

FAX (818) 755-0078

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