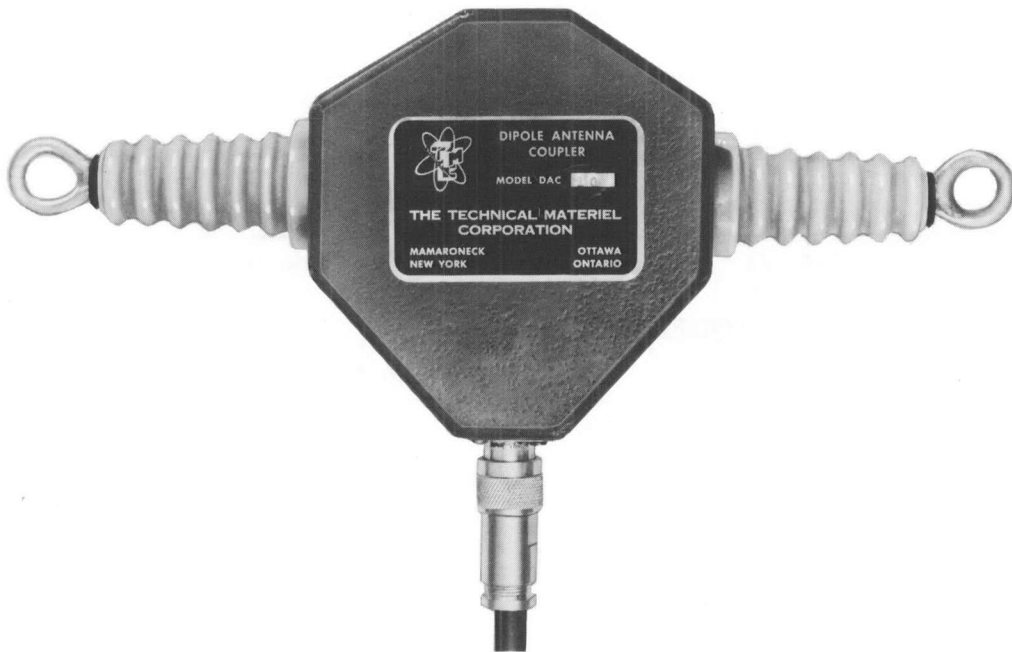


OCT 10 1964 OCT 10 1964

TECHNICAL BULLETIN NUMBER 8013

Dipole Antenna Coupler
TMC Models DAC



- 2 to 32 mcs
- Built-in lightning arrester
- Weather resistant
- Sealed fiberglass reinforced plastic case
- Stainless steel connector rings
- 2,000 pound tensile strength

The Technical Materiel Corporation's Dipole Antenna Couplers, Models DAC are impedance matching devices, each providing a balanced connection for the center of a receiving dipole to 50 and 70 ohm unbalanced connections for coaxial transmission lines. An included chart shows models to meet various transmission requirements. The transformers used in Models DAC provide flat response over a wide frequency range, obviously however dipole antennas are constructed for finite frequencies, therefore impedance match from the antenna to the coaxial transmission line is a function of the frequency for which the dipole is cut.

Dipole Antenna Coupler

Stainless steel connector rings are provided for the antenna connector and for messenger tie points. The entire unit is contained within a sealed fiberglass reinforced plastic case, and additional strength and weather resistance is provided by "potting" the transformer and connectors in a plastic compound. A built-in lightning arrester prevents the accumulation of static charges which otherwise might injure associated equipment.

A tensile test of a sample DAC was conducted by a leading research laboratory to determine amount of applied tensile stress needed to damage sample. The sample successfully passed a tensile strain of 2,000 pounds between each of the antenna eye-bolts.

TECHNICAL SPECIFICATIONS, TMC MODELS DAC

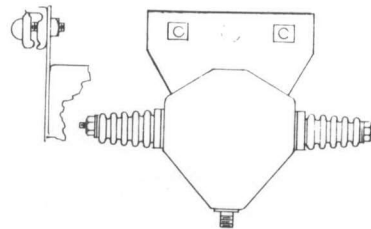
| | |
|---------------------------------|---|
| TRANSFORMER FREQUENCY RESPONSE: | Flat within ± 1.5 db throughout the frequency range. |
| EQUIPMENT CASE: | Reinforced fiberglass pastic. |
| INPUT TERMINALS: | Standard ring type. |
| IMPEDANCE MATCH: | See chart. |
| DIMENSIONS: | Maximum over-all, including all terminals, 12 $\frac{1}{2}$ " wide x 7 $\frac{3}{4}$ " long x 2 $\frac{1}{4}$ " deep. Maximum case dimensions, less terminals, 4 $\frac{3}{4}$ " wide x 5 $\frac{1}{4}$ " long x 2 $\frac{1}{4}$ " deep. |
| WEIGHT: | 3 pounds. |
| SHIPPING WEIGHT: | 5 pounds. |
| COMPONENTS AND CONSTRUCTION: | Equipment is manufactured in accordance with JAN/MIL specifications wherever practicable. |

TMC Models DAC

| MODEL | INPUT IMP. BAL. (Nominal) | OUTPUT IMP. UNBAL. (Nominal) | FREQUENCY RANGE | OUTPUT TERM. | MATING PLUG* | TRANSFORMER |
|---------|---------------------------|------------------------------|-----------------|---|-------------------|--|
| DAC-1 | 70 ohms | 70 ohms | 2 to 32 mcs | UG-58A/U | UG-21B/U Type N | TR-030 |
| DAC-2 | 300 ohms | 70 ohms | 2 to 32 mcs | UG-58A/U | UG-21B/U Type N | TR-119 |
| DAC-3 | 200 ohms | 70 ohms | 2 to 32 mcs | UG-58A/U | UG-260/U Type BNC | TR-039 |
| DAC-4 | 200 ohms | 70 ohms | 2 to 32 mcs | UG-58A/U | UG-260/U Type BNC | TR-068 |
| DAC-5 | 70 ohms | 70 ohms | 2 to 32 mcs | UG-103/U | UG-102/U Type UHF | TR-030 |
| DAC-6 | 70 ohms | 50 ohms | 2 to 30 mcs | UG-58A/U | UG-21B/U Type N | TR-120 |
| †DAC-8 | 70 ohms | 50 ohms | 2 to 30 mcs | UG-58A/U | UG-21B/U Type N | TR-120 |
| DAC-9 | 475 ohms | 50 ohms | 2 to 30 mcs | UG-58A/U | UG-21B/U Type N | TR-010 |
| DAC-10 | | | | UG-58A/U | UG-21B/U | Less Transformer |
| DAC-12 | | | | UG-58A/U | UG-21B/U | One insulator less transformer, for end-fed antenna TX and RX. |
| †DAC-13 | 200 ohms | 50 ohms | 2 to 32 mcs | UG-58A/U | UG-21B/U Type N | TR-039 |
| DAC-14 | 200 ohms | 50 ohms | 2 to 30 mcs | Fitted with SO-239 & PL-259 coax connectors | | TR-091 |
| DAC-17 | 600 ohms | 70 ohms | 2 to 30 mcs | UG-58A/U | UG-21B/U Type N | TR-072 |

*Mating plugs furnished.

†With pole mounting plate and hardware in place of connector rings.
(See drawing below).



Model DAC-8 and DAC-13

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