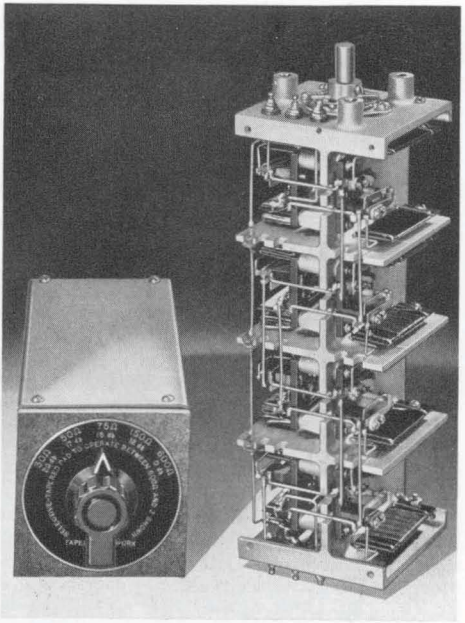

Figure 10. (*Left*) Type 829-HT Decade Attenuator Unit (tapered model) and (*right*) typical internal construction of the Type 829 Decade Attenuator Units.

SPECIFICATIONS

FOR TYPE 829 DECADE ATTENUATOR UNITS

Attenuation Range: Three decade ranges are listed in the price table below. The two tapered units, TYPES 829-HT and 829-TT, introduce an exact insertion loss, as follows:

Matching Ratio	600Ω to 600Ω	150Ω to 600Ω	75Ω to 600Ω	50Ω to 600Ω	30Ω to 600Ω
Attenuation	0 db	12db	15 db	17db	20 db

Characteristic Impedance: 600 ohms both directions except for the tapered units, which are 600 ohms in one direction and either 30, 50, 75, 150, or 600 ohms in the other direction to accommodate microphones, coaxial lines, high-fidelity telephone lines, etc. Either end can be used as input.

Accuracy: Each individual resistor is adjusted within ±0.25% of its correct value. The low frequency error in attenuation is less than ±1% of the indicated value, provided the unit is terminated by the nominal value of pure resistance. Impedance matching within ±0.5% will exist.

Input Power: Based on 1-watt dissipation in any single resistor, the maximum RMS values of input voltage are as follows:

Load Resistance	600 Ω	∞	0
TYPE 829-TA	117 volts	114 volts	3.8 volts
TYPE 829-TB	46	39	11.7
TYPE 829-TC	25	25	25
TYPE 829-HA	83*	80*	2.6*
TYPE 829-HB	32*	28*	8.3*
TYPE 829-HC	18*	18*	18*

Input Impedance	TYPE 829-TT	TYPE 829-HT
30 Ω	5.9	4.1*
50	7.4	5.2*
75	9.0	6.4*
150	13.4	9.5*
600	25	17.5*

* Voltages across each side of balanced input.

Frequency Discrimination: Less than ±1% of the indicated value:

At 1 Mc for the TA, TB, and TC units.

At 200-500 kc for the HA, HB, HC, TT, and HT units.

Type of Section: Both balanced-H and T-type sections are available.

Type of Winding: All resistance elements use Ayrton-Perry windings except the shunt elements of 829-HA and 829-TA, which are unifilar cylindrical windings. Where necessary, resistors are capacitance-compensated.

Switches: Cam-type switches are used with twelve positions covering 360°. The dials are numbered from "0" to "10" inclusive (except on tapered models) and the twelfth point is also connected to "0." No stops are provided in the switch mechanism to prevent complete rotation, but spacers, which are provided, can be used under the mounting screws to act as stops for the knob.

Type	*Range*	*Type of Section*	*Code Word*	*Price*
829-HA	**1db in steps of 0.1 db.....**	**Balanced-H**	TENUTORHAG	**$125.00**
829-HB	**10 db in steps of 1 db.....**	**Balanced-H**	TENUTORHUB	**118.00**
829-HC	**100 db in steps of 10 db.....**	**Balanced-H**	TENUTORHIC	**110.00**
829-HT	**(See Specifications above).....**	**Balanced-H**	TENUTORHUT	**120.00**
829-TA	**1 db in steps of 0.1 db.....**	**T**	TENUTORTAD	**85.00**
829-TB	**10 db in steps of 1 db.....**	**T**	TENUTORTUB	**80.00**
829-TC	**100 db in steps of 10 db .....**	**T**	TENUTORTIC	**80.00**
829-TT	**(See Specifications above).....**	**T**	TENUTORTOT	**70.00**

Terminals: External input and output soldering terminals on opposite ends; common terminal of T units grounded to chassis; common terminal of H units not grounded.

Mounting: The resistors and switches are housed in compartments of an aluminum casting, which is enclosed by aluminum covers. A dial and knob are furnished, and decades may be panel mounted from one end by three mounting screws which are provided.

Dimensions: 3⅛ x 3⅛ inches, extending 9½ inches back of panel. **Net Weight:** 3¼ pounds