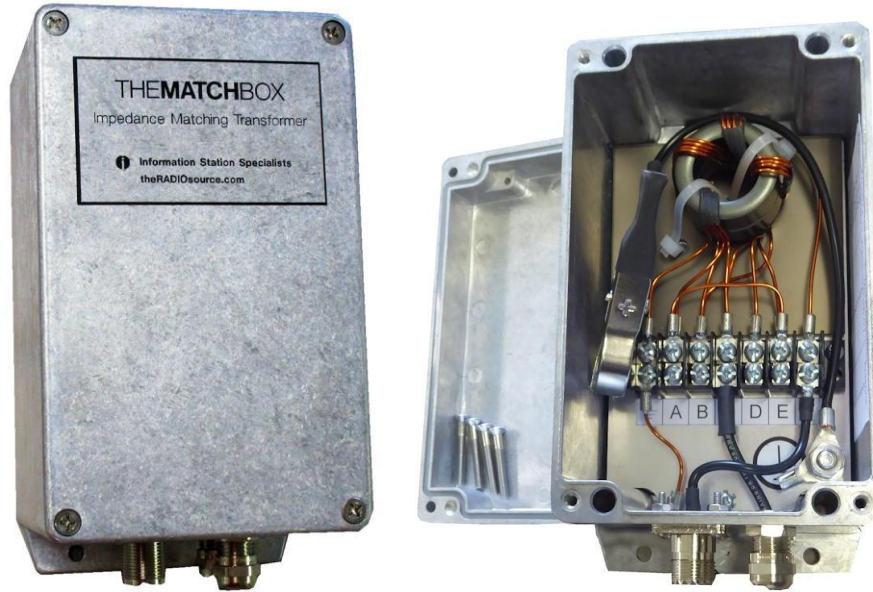


PRODUCT INFORMATION

Component THEMATCHBOX Impedance Matching Transformer
Part Number MB.22



Description

THEMATCHBOX is a broadband multi-tap transmission-line transformer that raises the magnitude of the characteristically low impedances of electrically short-end fed antennas to an impedance suitable for direct connection to 50-ohm coaxial cable without significant loss or standing wave ratio. Superior to conventional transformers which perform well only above 1 MHz, THEMATCHBOX works well at low frequencies (down to 100 kHz) due to its manganese zinc alloy composition.

The feed-point impedance of electrically short-end fed antennas is heavily influenced by local ground conductivity as well as the quality of the antenna's ground system, in addition to its physical length. Multiple impedance step-up ratios are required to cover a wide range of soil conductivity and ground-system variations encountered in the field. THEMATCHBOX can be field configured for 8 different impedance transformation ratios, matching antennas with feed-point impedances of between 3 and 37 ohms to a 50- ohm coaxial feed line.

THEMATCHBOX is designed for outdoor installation and is housed in a heavy-duty, weatherproof aluminum enclosure for mounting at the antenna feed point. Top and bottom flanges on the enclosure allow for simple installation on a variety of support types.

Specifications

Impedance Ratio	Feed-Point Impedance
1:16	3.1 Ω
1:12	4.2 Ω
1:9	5.6 Ω
1:4	12.5 Ω
1:3	16.7 Ω
1:2.25	22.2 Ω
1:1.75	28.6 Ω
1:1.4	35.7 Ω

All products described here are subject to availability based on manufacturing capacity and shipping dates. We have made every effort to ensure the accuracy of the information; however, we do not accept liability for errors or omissions. We reserve the right to change these specifications without notice.

PRODUCT INFORMATION

Component	THEMATCHBOX Impedance Matching Transformer
	Power Rating: 300 Watts Continuous
	Frequency Range: 100 kHz to 1.7 MHz
	Construction: Multi-Filar on Medium Permeability MnZn Toroid Core
	Impedance Selection: Internal Jumper/Screw Terminals
	Accessories: Mounting Straps; Ground Jumper/Clamp
	Connectors: Coax: SO239; Ground: Internal Stud
	Dimensions: Height 6.25"; Width 4.0"; Depth 3.25"
	Height including Flanges: 7.5"
	Cover Attachment: 4 Screws
	Weight: 2.5 lbs
	NEMA Rating: 1, 2, 4, 4X, 6, 12 and 13
	IP Rating: IP68

All products described here are subject to availability based on manufacturing capacity and shipping dates. We have made every effort to ensure the accuracy of the information; however, we do not accept liability for errors or omissions. We reserve the right to change these specifications without notice.