

IMPEDANCE MATCHING TRANSFORMERS

Most of RF Power Sources are designed and optimized to best deliver power into an impedance of 50 Ohms. In a power delivering system where the source and load impedance differs by more than 2:1 a matching element can improve efficiency. T&C offers a range of LF Band matching transformers for high (and low) impedance load applications.

The table below presents some standard impedance ratios offers by T&C.

CASE OPTIONS:

1. W 8.3" x L 14" x H 3.5" (211mm x 356mm x 89mm);
B style gray box from Lansing Instruments, 1 side vented, Air cooled
2. Custom sizes and configurations on request.
3. Connectors: "N" type input and output

STEP-DOWN/STEP-UP TRANSFORMER (SUT 4K LF-7 previous revision)

STEP DOWN MATCHING

(Z_{in} = 50 Ohms) Frequency Range 10 kHz – 1 MHz; 3 MHz max with reduced power level.

Z _p IN RF Input	Z _s OUT RF Output	Impedance ratio	Max P IN (Without cooling)
IN 7 = 50 Ohms	1.3 (+/- 20%) Ohms	1 : 38	2000 W
IN 6 = 50 Ohms	2 (+/- 20%) Ohms	1 : 25	2500 W
IN 5 = 50 Ohms	3 (+/- 20%) Ohms	1 : 16.6	3000 W
IN 4 = 50 Ohms	5.5 (+/- 20%) Ohms	1 : 9	4000 W
IN 3 = 50 Ohms	8 (+/- 20%) Ohms	1 : 6.25	4000 W
IN 2 = 50 Ohms	12 (+/- 20%) Ohms	1 : 4.16	4000 W
IN 1 = 50 Ohms	20 (+/- 20%) Ohms	1 : 2.5	4000 W

STEP UP MATCHING

(Z_{in} = 50 Ohms) Frequency Range 10 kHz – 1 MHz; 3 MHz max at reduced power level.

Z _p IN RF Input	Z _s OUT RF Output	Impedance ratio	Max P IN (Without cooling)
IN 7 = 50 Ohms	1900 (+/- 20%) Ohms	38 : 1	2000 W
IN 6 = 50 Ohms	1250 (+/- 20%) Ohms	25 : 1	2500 W
IN 5 = 50 Ohms	800 (+/- 20%) Ohms	16 : 1	3000 W
IN 4 = 50 Ohms	450 (+/- 20%) Ohms	9 : 1	4000 W
IN 3 = 50 Ohms	300 (+/- 20%) Ohms	6 : 1	4000 W
IN 2 = 50 Ohms	200 (+/- 20%) Ohms	4 : 1	4000 W
IN 1 = 50 Ohms	100 (+/- 20%) Ohms	2 : 1	4000 W

T4K-7

SUT 4K LF-7

IMPEDANCE MATCHING TRANSFORMER



COOLING:

Forced air cooling, air intake and exhaust through back panel vents.

AC Power requirements:

100 to 240 VAC, +/-10%, 0.7A.

AC Power Connections:

IEC320C14 universal plug on 3 x 18 AWG line cord, 6'. Rear panel entry.